IMPACT OF QUALITY ASSURANCE ON TERTIARY INSTITUTIONS IN NIGERIA: EVIDENCE FROM SELECTED TERTIARY INSTITUTIONS AND STAKEHOLDERS IN KANO STATE.

Shuaib, Kabir Musa,

College of Management and Economics, Tianjin University, Peoples Republic of China, 3000072.

kabirms01@gmail.com

ABSTRACT: *Nigeria like any other country requires quality tertiary education through recognized institutions that are mandated to produce a highly-skilled entrepreneurial, managerial, and technical workforce for the social and economic sectors. That can be achieved through effective quality assurance practices (internal and external). However, does the system have sound quality assurance practices to achieve this goal? This paper, therefore, examines the impact of quality assurance practices in the Nigerian tertiary education system with a sample drawn from 5 quality assurance targeted institutions/groups (three tertiary institutions, supervisory agencies, employers of labor, and graduates in Kano State, the study area). A total of 280 sets of questionnaires were distributed to the targeted respondents, and 244 were collected and analyzed using SPSS 24.0 and its allied software of AMOS 24.0. The study used Structural Equation Modeling to identify the impact of quality assurance in higher education services in Nigeria. The result revealed that the quality assurance practices were found to have a significant effect on staff selection and recruitment (Input) in the Nigerian tertiary institutions ($\beta = 1.648$, $P = 0.000$). Similarly, quality assurance practices were also found to have a significant effect on the teaching and learning (process) in the Nigerian tertiary institutions ($\beta = 1.307$, $P = 0.000$) and lastly quality assurance practices were found to have a significant effect on the outputs (graduates proficiency and employability) of Nigeria tertiary institution ($\beta = 0.308$, $P = 0.000$). The study highlights recommendations like; admission policies and procedures for attracting quality students should be on merits; they should also focus on demand-based courses that match the need of employers; tertiary institutions should ensure a high standard of internal quality assurance systems that will enable effective and efficient internal control of teaching and learning process. These recommendations will guide in strengthening the Quality Assurance System in Nigeria.*

Keywords: Quality assurance, Tertiary institutions, Internal and external quality assurance, Quality assurance managers, Quality management.

INTRODUCTION

Education is essential to human development and therefore expected to be qualitative in every aspect. Education is vital to individuals' development as it is to the development of their families, their local and national communities to which they belong, so also to the world at large [1]. To harness human and material resources, you need a very sound quality education, it is the most indispensable tool for the development of any nation. While some countries in the world crave for democracy and its sustainability, it is equally important to pay uneven attention to the educational sector, as it is the bedrock for national transformation and general economic growth. When there is low-quality education, it hinders political, social, and economic transformation [2]. There are, a growing number of tertiary institutions across the globe characterized by a knowledge explosion, particularly during the era of the knowledge economy and with the emergence of big data storage through ICT applications. This scenario has created competitive pressure within the industry and posed a serious challenge to both governments, investors, and other stakeholders in the educational sector like quality assurance agencies. Similarly, education is considered an essential tool for development globally, and there have been calls for more functional and qualitative education. Additionally, the concern for quality education is reflected in the resolutions of the Education for All (EFA) Conference in Jomtien (Thailand) in 1995 and Dakar in 2000. The climax for this, as the resolutions of the 56th session of the United Nations General Assembly during the 56th session of the United Nations General Assembly, which emphasized the significance of quality education as one of the primary goals of the Millennium Development Goals (MDGs) and further

supported in the post-MDGs Sustainable Development Goals (SDGs) [3].

It is worthy to note, for quite sometimes now tertiary institutions in developed economies have a well-established quality assurance mechanism aimed at improving the quality of teaching, learning, research, and other community service activities. That perhaps led to brain drain among teachers of higher education as well as attracting students from developing countries to secure admission into the tertiary institution in developed economies. The global rating of tertiary institutions concerning quality and performance has added to this adverse scenario for tertiary institutions in emerging economies. In recent times, quality assurance measurement is attracting tremendous support among tertiary institutions in developing countries like Nigeria, probably due to the changing climate of tertiary education and other related development taking place on the higher education market world over, thus, the institutions in a developing country have no option than to adjust [4]. The adjustment became necessary looking at the increasing importance of tertiary education coupled with an unprecedented increase in the student enrolment into tertiary institutions against the deteriorating government budgetary allocation to education. Similarly, the increasing tempo of student groups, the introduction of additional programs, and the demand for better public service have added to the quest for quality tertiary education in developing countries [5, 6, 7, 8].

Nigeria like other countries across the world practicing federalism, the three tiers of governments (federal, states, and local governments) shares the responsibility for the administration of the education sector, as the constitution of the Federal Republic of Nigeria provided education under

concurrent list. Additionally, the Federal Government is responsible for regulating all its sectors, including policy formulation and ensuring quality control [3]. Among the three stages of formal education in Nigeria, the study will focus on the third stage which is the tertiary education. That is, education for the post-secondary level also called higher education that offers participants with post-secondary courses and engages in research activities [9]. Similarly, the term is usually used to distinguish courses of study, as well as a result, that is, the award of a degree, diploma or similar advanced qualification, depending on the awarding institution [10]. In Nigeria, people acquire tertiary education from universities, colleges of education, polytechnics or mono-technics and institutions accredited by various supervisory agencies like the National Universities Commission (NUC), National Commission for Colleges of Education and the National Board for Technical Education (NBTE). For the purpose of this paper, tertiary institutions refer to universities, colleges of education, polytechnics, and monotechnics.

In Nigeria, government and private investors in education established quality assurance measures at tertiary institutions that will not only ensure quality compliance but maintain consistency in quality education across the country. These measures include the establishment of quality assurance unit, provision of adequate training materials for teaching and learning through tertiary education trust fund (TETFund), periodic accreditation exercise and audit, setting up of relevant agencies for a screening like joint admission and matriculation board and other related checks for ensuring the quality of tertiary education service. This paper, therefore, examined the impact of these quality assurance practices on Nigerian tertiary institutions using three selected tertiary institutions in Kano-State, Nigeria.

Statement of the Problem

Quality assurance systems in Nigeria operate at different levels; the National and Institutional levels, both with different regulations and objectives, to achieve a unified goal. Contemporary thinking appears to support a regulated quality assurance system to ensure that students receive the best possible education, and to maintain employers' and public confidence in the quality of the education provided [11]. However, the Stakeholders in Nigeria's tertiary education sector perceive that both the national and institutional quality assurance systems do not provide value for money; do not empower the learner; and does not promote effective teaching, research, and learning. Also, from the available literature not much was reported on the impact of quality assurance on tertiary education particularly in the study area-Kano, Nigeria. In light of the above, the present study is a modest attempt in that direction. It sought to examine the impact of quality assurance (internal) on tertiary institutions in Nigeria with a focus on three selected tertiary institutions in Kano State.

Objectives of the Study

The main objective of the study is to examine the impact of quality assurance on tertiary institutions in Nigeria. The specific objectives are to;

i. determine the application of quality assurance practices (internal) in the Nigerian tertiary institutions.

ii. identify the application of quality assurance practices on teaching and learning (process) in the Nigerian tertiary institutions.

iii. examine the impact of quality assurance on the quality of tertiary education (graduates) in Nigeria (output).

Conceptual Framework

Quality Assurance in Tertiary Institution

Several studies in the literature examine quality assurance issues in higher education in developed and emerging economies. Tertiary education in our contemporary society is one area where every stakeholder shares a common interest, which is quality through effective quality assurance practices. Some of these studies have the same dimensions as current research while others with similar or different variables. [12], wrote on quality assurance in higher education: a review of the literature. The paper examines the literature surrounding quality assurance in global higher education, with a focus on conventional QA practices like accreditation as a mechanism to ensure quality in higher education and other QA models with particular attention to students' participation in the process. [13], examined the challenges of quality in higher education in Nigeria in the 21st century. The paper discussed ways to achieve quality higher education and recommends the government to allocate 26 percent of budgetary allocation on education as suggested by UNESCO. Additionally, there should be collaborative efforts between the government and other sectors of the Nigerian economy to achieve quality.

Quality is a relative term, depends on the nature of the product or service involved, as such, no standard definition of quality meant for all purposes. While some rely on quality dimensions as a determinant, it is essential to note that conformance to the requirement or strict compliance with the quality standard as well as continuous improvement remains the best way to describe the quality of something. In practical terms, consumers requesting services would like to assess the quality of the services that they will be engaging in, and therefore, the relevant information is needed to form expectations about the performance of such services [14]. [15], argued that in academic settings a higher quality of (student) input is assumed to result in a higher quality of (educational) output. Provision of adequate human and materials in tertiary institutions is not enough, it must be accompanied by, a sound regulatory framework, necessary to mandates and ensures, among others, continuing attention to promoting and attaining quality, assessment, and control of quality, and providing results and feedback to the relevant stakeholders about the quality levels achieved [16]. In the past, the idea about excellence in education enterprise particularly tertiary education was mainly in the hands of the institution's management with little supervision of government supervisory agencies. But in recent times, quality is an essential issue in higher education in Europe, America, and even emerging economies in Asia and Africa. For the participants in the education process, it always has been crucial although frequently taken for granted [17].

According to [18], quality education involves the set of elements that consists of the input, process, and output of the education system which provides services that satisfy the internal and external strategic constituencies entirely by meeting their explicit and implicit expectations. Quality

assurance in this context refers to the meeting or conforming to generally accepted quality standards as defined by quality assurance bodies or appropriate academic and professional bodies [19]. Additionally, tertiary institutions should put in place quality assurance mechanisms to produce graduates that can meet the adequate human resources requirements for the labor market. The policymakers have to design a quality assurance mechanism that will ensure effective management and training for achieving quality service delivery in tertiary institutions across the country. Tertiary institutions should establish and maintain quality assurance units and the department to manage quality assurance issues to complements the efforts of government and other stakeholders in ensuring effective service quality delivery [20].

The Concern for adequate quality assurance in the Nigerian tertiary institutions has become necessary and timely to catch up with the global trend. For example, the United Kingdom and many countries in Western Europe are introducing new policy strategies to assure and improve the teaching and learning quality. Similarly, China and Australia are conducting reforms in higher education, with a particular interest in quality assurance. Similarly, the United States that have been using accreditation for over 100 years as part of the checks for quality assurance is now being transformed from a valued private-sector process to a process that is subject to more and more federal involvement. Quality assurance now plays a significant role in shaping the higher education terrain across the globe, particularly in developing countries like Nigeria. The education industry like any other fast-growing industry has become more globalized with an increasing number of private tertiary institutions leading to more students' enrolment [21]. In Nigeria, governments at all levels are making efforts through the supervisory agencies of tertiary education (FME, NUC, NCCE, NBTE), to review and strengthen the external quality assurance measures. A very significant part involves continuous process improvement in the quality of teaching and learning activities through the effort of the teaching staff, management, and internal quality assurance unit [22, 23, 24]. To further complement the above efforts, government in Nigeria through an agency, tertiary education trust fund (TETFund) embarks on a radical upgrade of the institutions' facilities with the provision of quality teaching and learning materials and training of scholars within and outside the country through the agency.

The success of quality assurance measures in tertiary institutions lies in the following factors:
i) Internal assessment;   ii) External review;   iii) Publication of outcomes;   iv) Implementation and v) Follow-Up.

Internal and External Quality Assurance Practices in Tertiary Institutions
Education as an industry developed a check and measurement through which standard is followed, maintained, and improved from time to time to achieve and ensure the quality of service delivery. [25], opined that the term quality assurance had entered the vocabulary of higher education in the last few decades in spite of the existence of various measures to ensure quality in tertiary education service delivery. It is important to note that, the use of quality assurance as a concept varies from country to country. While some use the same components, others have some variations, but there is a similarity in the concept and application as indicated by much current literature on quality assurance in higher education, at the same time some view it as slippery to describe the variation in the usage of the concept [26, 27]. Others [28], supported this argument as they maintained that, the terms used for quality assurance vary across countries; while similar terms are used in some countries others use different terms and sometimes used to mean the same thing. In practical terms, quality assurance can be used to describe all techniques and methods related to quality, either at the system level (external quality assurance) or the level of teaching and learning in tertiary institutions (internal quality assurance). Similarly, [29] sees a quality assurance from two perspectives; the first is from the internal criteria of the system that has to do with profile expiration and the external standards which are the fitness of the education and its relevance to the environment at large. Thus, effective quality assurance is achieved using two broad dimensions, internal and external quality assurance [16].

Internal Quality Assurance (IQA)
It is sometimes called internal assessment practice, where the institutions establish checks and measurements for meeting quality assurance standards. It is a joint effort between the management and the entire community through the close watch of the quality assurance unit or department. Some studies in the literature considered the Internal Quality Assurance-centered approach to have a more significant impact on the precise quality of teaching and learning when compared to more accountability-driven EQA mechanisms, which may not ensure quality improvement [16]. The internal quality assurance structure includes:
i) Quality assurance unit or department.   ii) Student evaluation.   iii) Performance/output
iv) Internal screening. v) Compulsory attendance to school activities for teachers and students

External Quality Assurance (EQA)
The external quality assurance (EQA) involves a system check through regulatory authorities that establish policies, regulations, and guidance for the tertiary institutions to ensure strict compliance and to assure the quality of tertiary education program in all the institutions' concerns. That is why some studies based external quality assurance to have more focus on accountability as suggested by [30], who viewed EQA to relates to accountability, both of which are concerned with maximizing the effectiveness and efficiency of educational systems and services in relation to the contexts of their missions as well as their stated goals and objectives. Additionally, there may be some challenges based on practical experience with regards to achieving the goals of external quality assurance approaches [31, 32]. The external quality assurance consists of programs from regulatory agencies within and outside the country and includes; i) Accreditation.   ii) Global assessment/ranking.   iii) External audit iv) Needs assessment. v) External screening agencies

Major Challenges of Quality Tertiary Education in Nigeria.

As explained in the introductory section of this paper, tertiary institutions produce graduates with different qualifications (degree, diploma, and certificate) for Nigeria's labor market, the quality level, and general performance was relatively good at the beginning, shortly after the independence in 1960. The number of institutions than were few and the quality of teaching staff and learning facilities were adequate. Equally important to note, all the tertiary institutions at that time belongs to the public authorities. The situation begins to change, with population explosion coupled with an increasing number of tertiary institutions across the country. The standard of tertiary education started falling when government budgetary allocation keeps diminishing year after year, which means, underfunding, leading to inadequate learning facilities, shortage of qualified teaching staff, increasing number of enrolment, and unclear standard measurement. Although various reforms were put in place since 1999 to reform the education sector coupled with an increasing number of both public and private tertiary institutions, Nigeria remains Africa's sleeping giant. With a current estimated population of over 170 million and more than 152 universities, no Nigerian university is regarded as World Class. Thus, in comparison with South Africa, with a population of 51.77 million people and less than 50 universities, it has a number of her universities rated as World Class [33]. Similar studies reveal that the most disturbing evidence of quality challenge of tertiary institutions in recent years is the non-inclusion of Nigerian universities among the world's best 500 universities. The worst scenario happened when Nigeria was ranked 44 after Kenya, Ghana, and South Africa in the ranking of African Universities [34]. The inclusion of the University of Ibadan among the top 1,000 universities in the world in 2018 was a welcome development being the first time a Nigerian university make up the list of 1000 world best universities. The report stated that the premier Nigerian university was ranked 991st worldwide, also 14th in Africa, according to the 2018/19 edition of the global rankings released by the Center for World University Rankings [35].

Underfunding of tertiary education

Tertiary education requires a considerable investment concerning adequate funding if the quality is expected; as an overall result, particularly looking at its significant role in the supply of high-level workforce for the socio-economic development of a country. Effective management of education through adequate funding will promote socio-economic, political, and cultural development in Nigeria [36, 37]. While the United Nation's Educational, Scientific, and Cultural Organization (UNESCO) recommends 26% of the national budget to education, the situation in Nigeria is beyond expectation as the trend of budgetary allocation is quite unfortunate. Example, in 2010 – 4.83%, then rose to 10.6% in 2014, 2015 – 9.5% then keep falling in 2016 – 8.2, 2017 – 8% and 2018 – 7.04% [38, 39, 40]. The budgetary allocation means a lot and has a multiplier effect on the overall management and quality issues.

Poor Management

The establishment of a quality assurance unit and its maintenance in many tertiary institutions by the authorities has been described as a "mere copy" which jeopardizes the overall quality assurance objectives. This unfortunate development significantly affects the concept of institutions, particularly in developing countries like Nigeria. Tertiary institutions in the country may require a national unit, which might have a national monitoring role and be engaged in the national quality assurance mechanism that may be implemented to effectively manage and coordinate quality assurance [41]. The management of the education industry should focus on how to efficiently manage the educational resources allocated to them as well as the control of their schools and students [42].

The unprecedented rise in the students' enrolment

There is an increasing demand for tertiary education in Nigeria due to a growing number of students the complete senior secondary schools. The number is increasing in geometric progression due to limited slots for admission into tertiary institutions. The unfortunate situation is that a considerable amount of those seeking entrance into tertiary institutions have a poor background and this added to quality challenges at tertiary. This development will undoubtedly affect the quality of tertiary education in Nigeria since excess enrolment usually leads to overcrowded classrooms, ineffective teaching, and examination malpractices [43]. Although the screening and selection exercise like post UTME will check the excesses of this problem.

Frequent industrial action by tertiary institution staff

The quality of tertiary education is grossly affected by many strike actions of both academic and non-academic staff of tertiary institutions in Nigeria. Strike actions abruptly affect the activities of the entire institution's management including planning and effective decision making by disrupting the academic calendar, programs, and plans [44]. In 2018 alone, almost all staff associations (academic and non-academic) of the tertiary institutions in Nigeria spent more than four-month on strike, putting on hold all activities of the institutions, this is in addition to the general strike action by the Nigeria labor congress.

Quota system of both admission and employment.

In Nigeria, employment into federal government service (including academic institutions) must have some element of federal character outlook so also admission into federal government institutions. The system provided, 30% of admissions into federal institutions is reserved for catchment area 20% for educationally disadvantaged students, 10% at the vice-chancellors' discretion, or similar position in other tertiary institutions like Provost or Rector). From the above analysis, only 40% of the students will be admitted by their academic performance [33]. The study also found, there is a significant difference concerning academic performance between students admitted on merit and others using different selection methods and the rate of drop-out will equally be three times higher than those selected on merit. The situation is similar when it comes to employment into public tertiary institutions; some staff are employed by federal character, not on merit, the development that grossly affects the quality of tertiary education. Similar situations are reported in the state

government-owned tertiary institutions, sometimes worse than the federal government tertiary institutions.

Staff training and physical facilities

One best way to ensure the quality of tertiary education in Nigeria is by training and re-training of teaching staff as well as the provision of adequate teaching and learning facilities similar to what is obtained in other tertiary institutions across the globe. Therefore the first quality assurance practice starts with high-quality teachers because the education of the highest quality requires teachers of the highest quality. In contrast, education today seems to lack, not only quality programs but also dedicated and high-quality teachers across the country [43]. Additionally, adequate facilities like a conducive classroom, laboratories, libraries staff offices, and workshops need to be provided and upgraded from time to time. There is considerable improvement in this aspect in recent times with efforts of the Tertiary Education Trust Fund (TETFund) in the area of staff training and provision of teaching and learning facilities. The size of the tertiary institution concerning their number and more are coming on board; it will take time before the agency satisfactorily meets the demand for training and facilities in every tertiary institution in Nigeria.

Methodology

The study adopted a mixed-method (triangulation) design using qualitative and quantitative research methods. Semi-structured other than structured or unstructured interviews [45] was used to ensure control but less restriction on participant's responses to get the needed details and also avoid bias. Hence, the interview will be based on a mix of open-ended and closed questions, which is intended to pursue the fact and also seek the opinion of respondents. The decision to triangulate data was based on experts´ view that different sources will complement each other and fill in the information gaps that might exist between the two data sources [45, 46].

Sampling Techniques: A non-probability technique called purposive sampling was used based on the purpose or objectives of the study. Here, three tertiary institutions and target respondents were selected. The purposive nature of the sampling process meant, potential respondents were pre-determined, categorized into specific units that were relevant to the research question. That will be done to ensure the respondents bring different perspectives that will adequately respond to the research objective. The research instrument was used to collect data from; supervisory agencies (Key Informant Interview, KII NUC, NCCE, and NBTE); employers (consumers); Graduates (product), and tertiary institutions.

Similarly, the study conducted a document analysis from two different sets of data: Official policy document on quality assurance, administrative documents such as Basic institutional Laws, and the quality assurance policy documents.

The validity of the Instrument: The instruments were scrutinized by the experts in order to ascertain their usefulness for the study at hand.

Reliability of the Instrument: The study achieves the reliability of the instruments through trial- testing/pilot testing of the instruments developed/adapted to measure the study variable using a pilot similar to the target sample. Cronbach's alpha for the constructs ranged from the lowest of 0.851 to 0.942. The results showed that the scores of the Cronbach's alpha for all the constructs used in this research exceeded the preferable scores of 0.70 [47], and they indicated that the measurement scales of the constructs were stable and consistent in measuring the constructs. Accordingly, the researcher used the pilot study to identify items in the questionnaires that were ambiguous or unclear to the respondents, and such items were changed effectively. The pilot study also enabled the researcher to familiarize himself with the administration of the instruments.

Data Collection: The study administered the questionnaire on sampled respondents through face-to-face interviews where the interviewer and the respondent interact with each other. The choice of a face-to-face interview method of administering the questionnaire was due to several advantages the method has over others.

Data Analysis: The data collected were analyzed using descriptive and Structural Equation Modeling. Structural equation modeling (SEM) is regarded as a second-generation data analysis technique and has been chosen as the primary statistical method to test the hypothetical model in this study. SEM techniques enable researchers to answer a set of interrelated research questions by modeling the relationships among multiple independent and dependent constructs simultaneously and allow researchers to simultaneously include both continuous and categorical observed and latent variables in one model [48]. All the data was processed and analyzed by computer software SPSS 24.0 and its allied software of AMOS (Analysis of Moment Structures) 24.0

RESULTS

A total of 280 sets of questionnaires were distributed to the targeted respondents, and a total of 244 questionnaires were collected. Therefore, only 244 available sets of collected questionnaires were used for the data analysis. Therefore, the response rate was 87 percent; the results are presented below by each hypothesis:

Respondents' Demographic Profile

The study sample is made up of five targeted institutions/groups: Bayero University, Kano, Federal College of Education (Technical), Bichi, Kano State Polytechnic, Kano; National Board for Technical Education, National University Commission, National Commission for Colleges of Education, 8 Employers of Labour (4 public and 4 private); 211 Graduates (products-public 62 and 149 private) respectively (see table 1).

Hypotheses

H_1: Quality assurance practices have a significant effect on staff selection and recruitment (Input) in the Nigerian tertiary institutions

H_2: Quality assurance practices have a significant effect on the teaching and learning (process) in the Nigerian tertiary institutions

H_3: Quality assurance practices have a significant effect on the outputs (graduates proficiency and employability) of Nigeria tertiary institution.

Table 1. Sampling characteristics.

| Sampling characteristics	Number	Sample (in %)
Institutions	3	1
Quality Assurance Agencies	2	1
Employers-Private	4	2
Employers-Public	4	2
Graduates-Public	62	28
Graduates-Private	149	67
Total	**224**	**100**

Source: Field survey, 2019

RESULTS OF STRUCTURAL MODEL

The structural equation modeling procedure estimates the standardized path coefficients as well as the regression path coefficient between constructs of the model. The AMOS Graphics output shows the results in Figure 1.

DISCUSSIONS

The test of the fitness of the full-fledged structural model and hypotheses presented in figure 1 summarizes the results of a full structural model. This model yielded consistency of the hypothesized causal relationship with the data (normed Chi-square = 2.926; CFI = 0.909; RMSEA = 0.078).All these fit indices satisfied their critical thresholds; the results, therefore, indicated a good fit of the hypothesized structural model. This structural model was tested based on the validated measurement model.

The parameter estimates of the hypothesized model were free from offending values. The review of the structural model indicates that all the three (3) hypotheses can be supported statistically, i.e., the causal link from "Quality Assurance" to "Staff Selection/Recruitment ", "Quality Assurance" to "Teaching & Learning" and also the causal link from "Quality Assurance" to "Outputs (Graduates)".
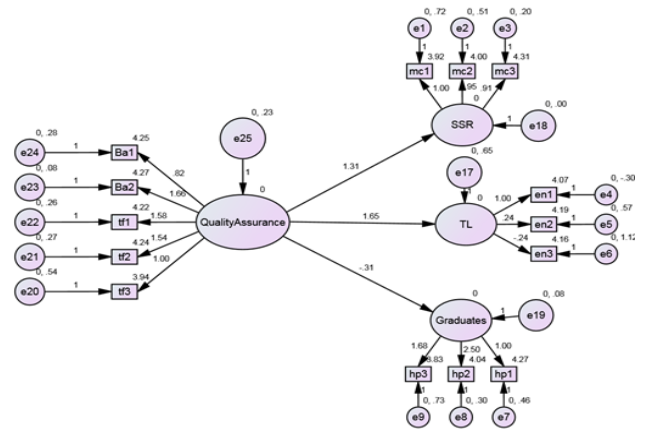
P-value = .000
Chi-square = 1204.703
Chisq/df = 2.926
RMSEA = 0.078
CFI = 0.909

Fig 1: Structural Model of Quality Assurance

The standardized regression weights of the aforementioned significant links were: 1.307, 1.648, and 0.38 respectively. It is important to note that the first link (Quality Assurance to Staff Selection/Recruitment) was significant at p < 0.001, (Quality Assurance to Teaching & Learning) was significant at p < 0.001, whereas, the second link (Quality Assurance to Outputs (Graduates) was also significant at p < 0.001. The complete results of hypotheses testing are presented in Table 1 shows the regression path coefficients for all three exogenous constructs (Quality Assurance) toward the endogenous constructs that extracted from Figure 1

Table2: Hypothesized Path Coefficients

	Hypothesized paths	Coefficient (β)	P-value (sig.)	Remarks
H₁	Quality Assurance → Staff Selection/Recruitment	1.648	0.000	Supported
H₂	Quality Assurance → Teaching & Learning	1.307	0.000	Supported
H₃	Quality Assurance → Outputs (Graduates)	0.308	0.000	Supported

Statistics	Suggested	Obtained
Chi-square significance	≥ 0.05	1204.703
Chisq/df	≤ 5.00	2.926
RMSEA	≤ 0.08	0.078
CFI	≥ 0.90	0.909

Source: field survey, 2019

The results as extracted from the model and presented on table 2 above revealed that, the quality assurance practices were found to have a significant effect on staff selection and recruitment (Input) in the Nigerian tertiary institutions (β = 1.648, P = 0.000). Similarly, quality assurance practices were also found to have a significant effect on the teaching and learning (process) in the Nigerian tertiary institutions (β = 1.307, P = 0.000) and lastly quality assurance practices were found to have a significant effect on the outputs (graduates proficiency and employability) of Nigeria tertiary institution (β = 0.308, P = 0.000).

CONCLUSION/RECOMMENDATION

The Quality Assurance on Tertiary Institutions Model was developed by which the set of factors were well explored and defined. The development model was empirically tested through a questionnaire survey among targeted Tertiary Institutions, Quality Assurance Agencies, employers, and employees in Kano State-Nigeria. Utilizing the result of structural equation modeling (SEM), it reveals that quality assurance has a significant influence on tertiary education as confirmed in H1, the staff selection, and recruitment (input, β = 1.648, P =0.000), H2, the teaching and learning (process β = 1.307, P = 0.000) as well as H3, the outputs (graduates proficiency and employability, β = 0.308, P = 0.000). All three hypotheses were supported, which shows the significant impact of quality assurance on tertiary institutions using three dimensions above. Emphasis should be directed towards improving the three aspects to achieve quality and sustainable

education and development in Nigeria. Based on the findings, it recommends the following:

i. Nigerian tertiary institutions should ensure that admission policies and procedures for attracting quality students should be on merits; they should also focus on demand-based courses that match the need of employers.

ii. Tertiary institutions should ensure that they maintain a high standard of internal quality assurance systems that will enable effective and efficient internal control of the teaching and learning process.

iii. The institutions should put in place processes, standards, and support infrastructure that will enhance the skills and expertise of staff and produce graduates industries-focused skills.

Limitations and Suggestion for Future Study

Although the research findings provide some new insights to researchers on the impact of QA on the Tertiary education system in Nigeria, these findings should be viewed in light of some limitations. The study is based on subjective measures (on respondents' perception of Quality Assurance). Although the response rates are acceptable, not all stakeholders in Nigeria tertiary education system responded (i.e., NUC and FME are excluded due to non-response), and the reasons for the non-response were not analyzed. Additionally, industrial action embarked upon by the academic staff union of universities and polytechnics in Nigeria has affected and delayed the fieldwork and the entire work in general.

Despite the limitations mentioned above, the study has added grounds for similar research in the future. For example, while there are more than 300 tertiary institutions in Nigeria, more institutions can be engaged as a case study to examine the implementation of quality assurance practices for better quality delivery service. Similarly, an additional variable like innovation for continuous improvement can be introduced in order to broaden the scope of the study and provide more results for improvement and sustainability in the education sector generally.

Practical, Theoretical and Political Implications of the Study

The study has practically closed the gap highlighted previously in the statement of the problem by providing empirical evidence about quality assurance practices in Nigeria tertiary institutions and ways to improve the quality of the graduates through effective internal quality assurance practices. Thus it provides evidence for parents and other stakeholders to make investment and see the value for money, thereby improving the quality of graduates for employability and meeting the expectations of the employers of labor now and in the future.

The adoption and subsequent implementation of quality assurance in many developing countries like Nigeria is a relatively new concept compared to developed countries of Europe and the US; therefore, there are many differences between the implementation of quality assurance in developing and developed countries. Better still, there is a dearth in the literature from these developing countries on quality assurance practices. Previous studies conducted on quality assurance practices have revealed that QA is least understood in many parts of Nigeria, even among the stakeholders in education management enterprises. With the recent development, evolving in the country; however, the implementation of quality assurance has become an important research issue for both researchers and practitioners. Therefore, this study has shed light, both theoretically and practically, on evolving quality assurance in the Nigerian tertiary institutions for better quality delivery services.

As education remains the bedrock for any meaningful development, policymakers, management of tertiary institutions, and other investors in the education enterprises can use the current study in policy formulation, education planning, financing strategy, and other related considerations for quality improvement and sustainability.

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