

WEB RANKING OF TERTIARY INSTITUTIONS AS A GUIDE TO INTERNAL DEVELOPMENT

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ABSTRACT: - This paper presents education quality assurance pointers used by known international bodies in the ranking of World Universities/tertiary institutions. Although indicators used by these bodies are appropriate and unique, They do not completely cover the framework of Nigerian polytechnics and the objective of technical and vocational education. They can only serve as guides to the total improvement of education in the polytechnic/technical education sector for proper and true development of a performance table. Thus, the authors proffer here some additional factors required to put Nigerian polytechnics and technical education in the proper perspective for quality assurance and development.

Keywords – Quality assurance, Learning Environment, Improvement, Indicators, academic resources.

1. INTRODUCTION

Ranking is one of several methods of quality assurance in education. Different indicators representing aspects of quality factor are used as pointers for placement of institutions based on quality comparison. Organizations with unbiased judgment principles use these pointers to place institutions based on the result of their findings. Some of the ranking organizations around the world are:

- Academic Ranking of World Universities (ARWU): ARWU was first published in June 2003 by the Center for World-Class Universities (CWCU), Graduate School of Education (formerly the Institute of Higher Education) of Shanghai Jiao Tong University, China, and updated on an annual basis. ARWU uses six objective indicators to rank world universities, as follows; number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Thomson Scientific, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index, expanded and Social Sciences Citation Index, and per capita performance with respect to the size of an institution. More than 1000 universities are actually ranked by ARWU every year and the best 500 are published on the web [1].

- World University Ranking (THES Ranking) published annually in the times Higher Education Supplement (THES) since 2004. This body presents a global performance table to judge research-led universities referencing their core missions; teaching, research, knowledge transfer and international outlook. This body uses thirteen indicators grouped

into five to evaluate the ranking of their case study universities. These include;

- Teaching: the learning environment (worth 30 per cent of the overall ranking score)
- Research: volume, income and reputation (worth 30 per cent)
- Citations: research influence (worth 30 per cent)
- Industry income: innovation (worth 2.5 per cent)
- International outlook: staff, students and research (worth 7.5 per cent) [2].

- The Webometrics Ranking of World Universities. This is an initiative of the Cybermetrics Lab, a research group; Consejo Superior de Investigaciones Cientificas (CSIC) in Spain. They are devoted to the quantitative analysis of the Internet and Web contents specially those related to the processes of generation and scholarly communication of scientific knowledge with the aim of promoting academic web presence. The ranking result is published twice a year. The major indicator used by this organization is the web impact factor. This is a pointer that reflects the academic performance of institutions using their web content such as; research output of the institution which includes informal publication of the institutions, access to scientific knowledge, link analysis of the institution showing their involvement with third parties [3].

- The CHE Excellence Ranking highlights the research strengths and international impact of European universities (and other higher education institutions) and give ideas to further improvement of their programmes. Students can find the right doctoral or master's programme as well as information on more than 4,500 research teams. The ranking system does not necessarily place institution on a table of rank but represent their research

performance in stars. This ranking body is exclusive about disciplines rating rather than whole institution placement hence there is no best institution. The survey data is obtained through statistical data acquisition and student survey response [4].

- Higher Education Evaluation and Accreditation council of Taiwan employed bibliometric methods to analyze and rank the scientific paper performances of top 500 universities in the world. The selection of the 500 universities in this ranking system is based on the information obtained from the Essential Science Indicators (ESI). Performance measurements are composed of eight indicators. All the indicators represent three different criteria of scientific paper performance: research productivity published in peer reviewed journals and indexed by SCI and SSCI, research impact characterized by the number of citations to a particular academic article within a specific time frame, and research excellence using the h-index of the last 2 years, the number of Highly Cited Papers from ESI, and the number of articles of the current year in high-impact journals (Hi-Impact journal articles). Where h index is the difference between the number of publications of that institution and the number of publication cited in high impact journals [5]

2. RANKING CRITERIA AS DEVELOPMENT POINTER

Based on the ranking bodies studied above it is very clear that they all have similar interests; research impact, staff strength, staff and student recognition, access to academic information, funding, international impact, research publication indexing. Although these criteria are more applicable in the universities than in technical institutions like polytechnics and colleges of education, these criteria can serve as a pointer towards our individual and collective development of our institutional recognition. This recognition not based on name or placement on a ranking table but on quality of our output.

2.1 International Impact: To improve our recognition on the international scenario, the authors suggest a number of approaches that can be applied;

- **Collaboration:** Many well known institution have gained and improved their quality through collaboration with international bodies not only in funding but in exchange of manpower and technical information. A good example is the collaboration between Obafemi Awolowo University (OAU), Makerere University, Uganda and Massachusetts Institute of Technology (MIT) in the ILAB project. This project allows third world institutions to have access

to high tech teaching and learning tools, which ordinarily they couldn't afford [6]. This approach has improved the recognition of these institutions at the international level.

- **Participation:** Students participation in international activities can also improve the recognition of our institutions. This is an approach taken by electrical department of Akanu Ibiam Federal polytechnic in establishing a branch of Institute of Electrical Electronic Engineers (IEEE) in the institution. This allows students to have access to up-to-date career trend of their chosen profession. They participate in international competitions, show case their academic talents in reflection with known scholars worldwide. These activities are published in the IEEE the institute magazine which has more than 93,000 audience worldwide [7].
- **Scholarships:** The TETFUND sponsored scholarship programme provides focused and transformative intervention in public Tertiary Institutions in Nigeria through funding and effective project management [8]. This can be expanded to improve our international impact and presence, by placing TETFUND scholars in world class institutions.

2.2 Research output: Research is one of the primary vehicles which facilitate cultural, economic, political and social development, among others, in any society [9]. A profound criteria for recognition of an institution is the applicability of their research findings. Research findings stimulate the development of any economy, where properly applied and also improves the recognition of the source institutions thereby raising their quality level [10]. These findings according to Higher Education Evaluation and Accreditation council of Taiwan are published in peer review journals and indexed by highly cited indexers where they gain higher audience than less cited publications. Although this is not a bench mark requirement, it can serve as a means of creating awareness of the improvements achieved in technical institutions like polytechnics.

2.3 Access to academic resources: Academic resources here include online, soft and hardcopy materials found in the institutions' libraries and other sources like the internet. Research is completely based on information. The quality of information received and transmitted over the global internet has plagued the development of education and research in

many Nigerian institutions [6]. In many Nigerian technical institutions, it is discovered that their internet access strength is less than 2gigabyte bandwidth hence affecting the quality of information available to such institutions. Also research teams, faculty staff and students depend on low speed internet connectivity media like pen drives or mobile phones for access to internet while the institutions at large create islanded internet connectivity media whose bandwidth are in the range of 512Kbps dedicated link. This is not conducive for quality teaching, research and learning. Internetworking of institution resources will greatly improve the strength of the institutions' research output and thus raise their quality ranking.

2.4 Web Presence: This is one of the indicators presented by webometrics for ranking institutions. The web content of an institution gives an insight on the academic activities of the institution. Hence technical institutions are encouraged to develop and maintain a website whose content showcases the institution's academic activity especially ongoing research topics, quality of research teams involved, discipline activities, graduate and alumni records, employability of graduates deduced from company reports of the institution, awards, Nobel prizes, recorded achievement of the institutions and their students. and other reports or citations that promotes the recognition quotient of the institutions.

3. Conclusion:

This article has surveyed the indicators used by renowned ranking bodies in the world and suggested some modifications aimed at these indicators as a development guide in technical institutions in Nigeria. It is recommended here that the CHE approach of ranking should be applied in our technical institutions as this will encourage internal development competition among disciplines and programmes rather than recognition competition among institutions. The impact will directly be felt on the students and their environment especially in the area of job creation and employability.

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