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PROMOTION OF TERTIARY TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) IN NIGERIA: MATTERS ARISING

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ABSTRACT
The Federal Government has realized that Technical and Vocational Education (TVET) holds the key to the country becoming technologically relevant and internationally competitive in the world market. Hence it integrated TVET as an indispensable component of the National Policy on Education (NPE). Since the second half of 20th century the government has continued to promote TVET at all levels of formal education namely: vocational schools - post-primary, technical colleges/ Vocational Enterprise Institutions (VEIs) - post-Junior Secondary School (JSS) and polytechnics/ monotechnics/ specialized institutes - post-secondary or tertiary; and more recently in the non-formal education sector through the National Vocational Qualification Framework (NVQF). Nigeria has also organized and participated in a number of National and International fora aimed at popularizing TVET as the most effective means of stimulating sustained national development. Recommendations from such fora point to the need for urgent continuous reforms in the TVET sector. Unfortunately some of such recommendations are either partially implemented or completely ignored by successive governments due, majorly, to bureaucracy and indecision. This paper x-rays some of the recommendations and the policy cunctation that hinders the realization of full benefits of tertiary TVET in Nigeria while also encouraging government to speed up their implementation.

Keywords: Tertiary Technical and Vocational Education, policy cunctation and bureaucracy.

Introduction
The National Council on Education (1987) approved National Board for Technical Education (NBTE)'s broad classification of technical institutions [**1]** as follows:
Vocational Schools at post-primary level are made up of vocational/artisan training centres producing artisans. Their courses lead to the award of the Federal Ministry of Labour and Productivity (FMLP) Trade Test Certificates of categories as Grades III, II and I as the case may be.
Technical Colleges at post-JSS level produce craftsmen at the crafts level and master craftsmen at the advanced craft level. Their courses lead to the award of the NTC/NBC and ANTC/ANBC for technical and business studies respectively. Vocational Enterprise Institutions (VEIs) were later included to award NVC.
Polytechnics/ Monotechnics and similar Specialized Post-secondary Institutions which

produce technicians and technologists. The courses offered by these institutions lead to the award of ND and HND. Innovation Enterprise Institutions (IEIs) were later included to award NID. At the professional level, Polytechnics were also approved to award Professional Diploma (Post-HND) mainly in Engineering and Environmental technology programmes.

Technical education is defined as "Education given in institutions providing both scientific knowledge and practical skills required for a specific trade, employment or profession as craftsmen, technician, technologists, scientists or similar levels in business, fields of engineering, and applied science" [2]. NPE 2nd edition [3] simply defines it as "the aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge." Bearing in mind that technology is a means by which man seeks to change or manipulate his environment it is hardly disputable that technology has produced incalculable material benefits for the developed nations, and that it has the potential for producing similar benefits for the developing nations. Nigeria as a developing nation, no doubt, looks up to technology with redeeming hope for freeing her populace from the drudgery of old-fashioned farming, for reduction in the cost of manufactured commodities through mass production techniques, and for significantly increased convenience and enrichment of the lives of the citizens. As a means of tapping into the full potentials of TVET Nigeria took the deliberate but measured steps to invest into it by establishing tertiary institutions whose main duties are to anchor the acquisition of the relevant skills in the sector. The first major recommendation for the introduction of TVET in the mainstream educational system was made in 1945 by the Elliot Commission [4] but this was not given any serious and urgent implementation attention it deserved. This is, perhaps why the Ashby Commission [5] in I960 noted that the major defect in the Nigerian educational system was its strong bias towards mainly literary and *academic* subject with almost total neglect of technical and technological fields of instruction. The Commission then made recommendations for the development of TVET below the university level leading to award of certificate of City & Guilds of London Institute (CGLI) and Royal Society of Arts (RSA). The awards of mere certificates instead of diplomas and degrees resulted in the society looking down on the holders and their inferiority complex among peers with diplomas and degrees. To address the inferiority complex among holders of TVET certificates, government created diploma awarding institutions among which is "The Yaba College of Technology" which was upgraded in 1963 from the Yaba Technical Institute. It was joined in 1968 by the Kaduna Polytechnic, in 1970 by the Polytechnic of Ibadan, in 1973 by Institute of Management and Technology, Enugu, and the Auchi Polytechnic in 1974 [6]. Since then more TTVET institutions are being established.

Perception and Setting for TTVET

The TVET is recognized as the main driver of the economy of any nation. An increasing awareness of the role of polytechnics is gradually beginning to be evident but its rise has been slow and social appreciation of them as important TTVET in their own right has been rather reluctant [6]. The apparent poor social acceptance of polytechnic education in Nigeria may not be unconnected with the poor foundation, wrong impression and blurred image

given about it ab initio by the government and handlers of tertiary education in the country. Issues associated with poor foundation and social acceptance of TVET include but not limited to:

Lower social status: According to the letter from the Federal Ministry of Education (FME) reference SME.545/3.3/9 of 12th November, 1975 the purpose of the polytechnics is to "provide the country's middle-level manpower". Such documented perception that polytechnics should provide middle-level manpower generated negative attitudes from the general public towards technical education. Its immediate consequence is a general misconception that technical education is the dumping ground for people with low I.Q. This trend actually prejudiced enrolments into TTVET institutions because the government seems to have enacted a limitation on the potentialities of such enrollees. Although the demand for technicians is great, the ambition to pursue technician courses, in which educational programmes and attainments are restricted, is bound to be popular only among students who have no other choice. Considering the number of years spent by the students in the Polytechnics to qualify for Higher Diploma it is hardly true to say that the products of Polytechnics are middle level manpower as middle-level manpower is 2-3 years full-time study at a polytechnic after WASC) [7**]**. Until quite recently, in the public service, graduates of technical education are discriminated against and their career prospects limited. For this reason, secondary school leavers and parents prefer University education to TVET [8].

Existing enabling law: The popular Education (National Minimum Standards and Establishments of Institutions) Decree No. 16 [9] regarded universities as providing higher education while polytechnics were to provide technical education. This gave the feeling that the government perceived polytechnic education as the liaison between what it called higher (university) education and secondary education. Of course nobody will see higher education and opt for intermediate education. The superiority status accorded university education over technical education again played out when the Decree No. 16 mentioned as part of the functions of universities "the promotion and encouragement of scholarship and research," giving the impression that the polytechnics cannot engage in scholarly research. However, as was pointed out by no less a person than A.M. Yabani, former Executive Secretary of NBTE, "research and development is one of the primary functions of all tertiary institutions and for the polytechnics this function complements that of teaching and training of the technical manpower required for our national development"[10]. In advanced countries, polytechnics form the basic testing grounds for research and technological adaptation. That is why Polytechnics like Massachusetts Institute of Technology USA, Manchester Polytechnic England, and Zurich Polytechnic Switzerland are famous [11].

Dearth of teachers: Another problem that confronted the TTVET from the outset and which was not foreseen by the government was the dearth of technical and vocational teachers. The Bagauda seminar [12] commended Obasanjo's regime for

increasing the number of TVET institutions. Unfortunately, Bagauda seminar too did not address the issue of training teachers for Technical Colleges and Polytechnics. The Seminar, however, frowned at Engineers teaching technicians/technologist in Polytechnics. It observed that the few technicians that emerged (from Polytechnics) are trained by engineers who have little practical experience and cannot teach what they do not have requisite knowledge. Till date the bulk of teachers in the polytechnics and lower TVET institutions are from the conventional universities. To drive home the point, there is no national system of technical and vocational teacher formation in the country that covers the production of all types and levels of technical and vocational teachers with institutionalized principles of programme articulation and academic progression. What exists lacks adequate articulation, flexibility and quality. For example an NCE (Tech.) holder can scarcely be admitted to pursue a teaching subject in a Bachelors degree programme in engineering, and neither can a holder of B. Ed (Technical Education) pursue a master's degree programme in his teaching subject area. Apart from quality issue, the scarcity of technology teachers is grave. *A technical teacher should be a first rate practitioner of his technical subject* [1]. The attempt of raising technical teachers from universities of technology as stop-gap seems to have been defeated with many of such universities deviating into management and non-technology based programmes, possibly to shore up their revenue base.

Academic progression: Another issue causing anxiety and frustration in the Polytechnics is the lack of opportunities for graduates of Polytechnics to achieve academic progression beyond HND level. This engendered agitation by the Polytechnics for parity with the Universities and the need to mount degree programmes in selected Polytechnics. The argument is that in most of the industrialized as well as the fast developing commonwealth countries and other industrially developed countries, the provision of higher education is based on binary or plural system, whereby its provision is shared by Universities, Polytechnics and Colleges of Education.

The former British Secretary for Education, Anthony Crosland, in his famous speech at Woolwich Polytechnic in 1965, in which he declared the British government's acceptance of the need for a binary system of education, gave four reasons for its adopting as [13]:

a. The demand for vocational, professional and industrial based courses required a separate sector with a separate tradition and outlook;
b. a ladder system with the Universities at the head would inevitably depress and degrade morale and standards in the non-university sector;
c. there was a need for a substantial part of the higher education system to be under social control and directly responsible to social needs; and
d. no other country in the Western world down-graded its non-University professional and technical sector.

Based on shared educational values with the U.K. and other commonwealth countries, it is believed that Nigeria should allow her Polytechnics to operate post higher national

diploma academic responsibilities.

Issues of professional recognition: So far COREN seems to make it impossible for technicians however brilliant and capable to become professional engineers. The Higher Diploma students who went overseas and obtained Master's degrees in any discipline of engineering are not considered registrable engineers in Nigeria whereas these same students are registrable in England for example.

Nothing could be more frustrating than the thought of an HND graduate going back to third year in the university in order to obtain a first degree before being considered registrable by COREN. COREN co-designed professional diploma (P-HND) curriculum with NBTE as a bridge programme for HND holders which will qualify them for registration as professional engineers. The same COREN turned around and jettisoned the P-HND programme. It is recommended therefore that Government should see to it that COREN serves the economic interest of Nigeria rather than self-preservation role it is now playing in Nigeria [7]**.** It is the submission of this paper that a separate professional regulatory council be created for TVET products of engineering programmes to avoid further frustration from COREN.

Inadequate resource input: Technical colleges are supposed to be natural feeders to polytechnics. However, those seeking admission into technical colleges represent only about 23% of the available spaces in Polytechnics, and out of this number less than 70% complete their technical education at the Technical College level. So right from the word go, suitable materials for Polytechnics are in short supply. Along the same line, the bulk of candidates seeking admission into Polytechnics are for Management/Business rather than Applied Sciences /Technical programmes [2].

Career limitation: Another issue causing anxiety and frustration in the Polytechnics is the placing of a limit to the career progression of products of Polytechnics in the service. It is a reflection of the negative attitude towards technical education in Nigeria. Career prospects of HND graduates in the public sector are pegged on salary grade level 14. However, the trend is changing with the recent legal framework being put in place to eliminate all forms of discrimination against TVET graduates. One of the greatest problems in Nigeria is that less value is placed on productivity, but more on paper qualifications.

Need For Reform in TVET and Corrections to the Many Deep-Seated Prejudices

TVET in Nigeria is confronted with many problems. Recommendations of the 2nd International Congress on TVET in Seoul, South Korea in April 1999 gives strong imperative for urgent reforms of TVET. Continuous reforms are also prescribed in the UNESCO convention on TVET for which Nigeria is a signatory. In July, 1999 at the 36th Ordinary Session of the Assembly of Heads of State and Governments of the OAU, Nigeria was designated as "the lead country for the development of science, technical and vocational education in the West African Sub- region with responsibility to design programmes and management strategies in response to the needs and demands of the 21st

century in Africa [1]. Present realities and recommendations from National and International fora are pointing to the need for urgent reforms in the TVET sector. Therefore, to find solutions to the dwindling fortunes of TVET in Nigeria, government has put legislative framework in place to address specific issues as well as made proactive moves at various times in organizing national seminars, setting up commissions and committees to rethink and rework the inputs, processes and products of TVET and propose directions for reform. Blueprints and recommendations came out of these efforts. However, implementations of these recommendations have been rather slow and selective. A number of factors have been identified as responsible for impeding the successful implementation such as:

- Lack of continuity of policy at the governmental and institutional levels.
- Retardation of enthusiasm in implementing the plan at some point in the course of the recommended spanned plans.

This work seeks to provide critical assessment of the available recommendations of the various committees and commissions on this subject matter. Arising from this are pertinent suggestions for their effective implementation to fast track the progress of TVET in the country. This is necessary for Education management and planning agencies of government to take proactive measures in their responsibilities.

Some specific areas where proposals for reform in TVET have been made and which await implementation include but not limited to:

Staff recruitment/development: As an outcome of the workshop on staff development between NBTE and the British Council in Kaduna, the following recommendations were made:

The Polytechnics should be encouraged to review their policies on staff development which should be more closely related to organizational needs and aims, and which should encourage the selection of staff on objective rather than subjective grounds [14]. This implies that only people that have vocation for TVET should be recruited in the first place. Recruitment of conventional degree holders with little or no practical knowledge to teach in polytechnics at the expense of HND holders should be discouraged. Interference from politicians and public figures during recruitment of staff for TVET should be discountenanced.

Attractive salary entry point: The committee on the basic purposes of polytechnic education [7] recommended attractive salary entry point for technologists as is the practice in advanced countries where the salary level of a technologist starts at 'A' as against 'C' for the graduate engineers (see Fig. 1). So, psychologically, it is attractive to want initially to commence a career from technologist level. But the remuneration growth rate is sharply different because the technologist progresses along the line AEB whereas the graduate engineer progresses along the line CED. At the meeting point 'E' the direction ED or EB depends purely on ability, aptitude, adaptability, experience, etc. This is one sure way of attracting students to TVET institutions. Fig. 2 illustrates the present situation in Nigeria i.e. from 1976 where salary levels of graduate engineers and technologists start at 'A'. The remuneration rate of the graduate engineers grows sharply from 'A to B' as against a relatively

slower growth rate of 'A to C' for the technologists.

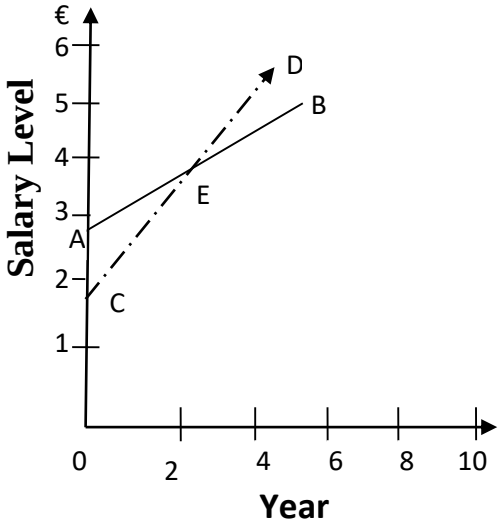


Fig. 1. Salary in advanced countries e.g. Britain

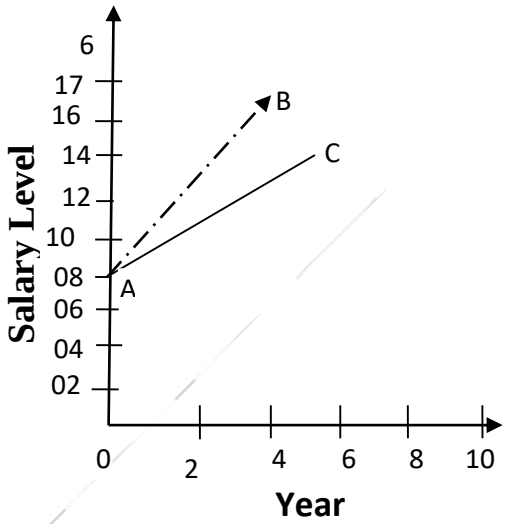


Fig. 2. Salary situation in Nigeria as a result of Establishment circular No. 2/ 1976

Destigmatize TVET: The Olu Aina Committee Report (2001) recommended that in order to encourage increased enrolment in TVET, a deliberate effort to remove apparent stigma on TVET as being inferior should be made by removing all existing obstacles for upward mobility in employment and in higher education of holders of TVET qualifications [2]. Initially, discrimination on TVET graduates seeking higher qualifications from universities was predicated on disparity of entry requirements. Now there is parity of entry requirements (5 credit passes in the relevant subjects in not more than two sittings) but the discrimination still persists. The Longe Commission proffered solution to this by recommending that universities should as a matter of priority, establish postgraduate programmes for the training of the Polytechnics graduates as they have no other opening. The programme should be established in collaboration with the Polytechnics with emphasis on practical content [6]. In response to that NBTE called relevant stakeholders (including COREN and Universities) and jointly designed Professional diploma programme to serve as a bridge programme to master's degree and equally earn TVET graduates professional qualification. The duo of COREN and universities later rejected the programme leading to further frustration of the TVET graduates. The universities thereafter started a one year PGD programme in place of the professional diploma and later changed the PGD programme to two years. Even at that COREN still denied the PGD candidates professional registration.

The Yabani committee [13] made far reaching recommendations which are hereby summarized:

i. It is highly desirable for Nigerian Polytechnics and Colleges of Education to run degree programmes distinct in content to reflect their practical and professional nature on autonomy grounds.

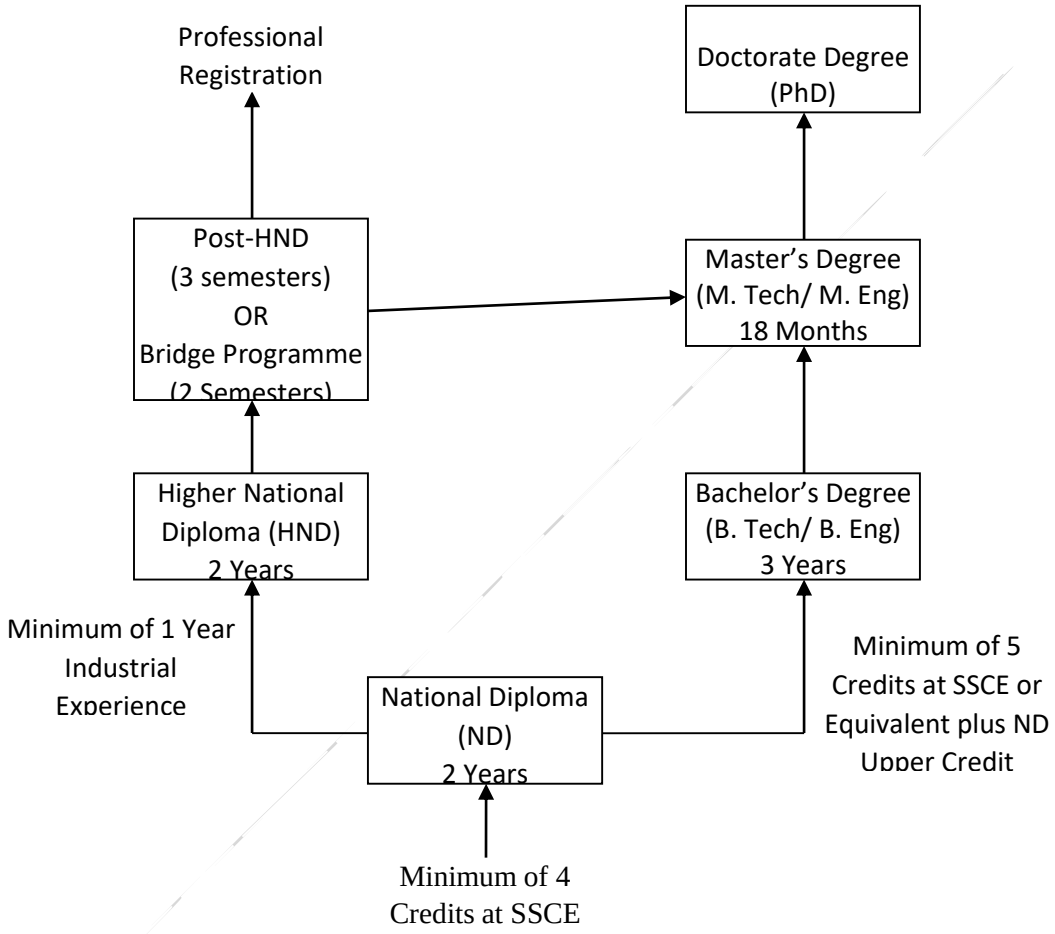


Fig. 3. The Yabani committee proposed structure of programmes in degree awarding Polytechnics

ii. All Polytechnics identified for awarding their degrees should continue to run their ND, HND and Post-HND programmes pari pasu the degree programmes.

iii. Polytechnics to run degree

programmes should continue to run the HND programmes and bridge programmes for holders of the HND to enable them gain admission into higher degree programes in the Polytechnics.

The Committee recommends the structure of the degree programmes as depicted in Fig 3. The degree programmes are to be run by only the polytechnics that have met certain set standards including quality in staffing and adequate infrastructure. The implementation of these recommendations, no doubt will enhance social acceptability of TTVET.

Justification for degree programmes in TTVET institutions is based on the following:

a. Most of the first and second generation polytechnics have a good quantum of staff with higher degrees.
b. Some of the courses offered currently in the Polytechnics up to HND level are not available in the Universities of Technology. Examples include Printing Technology, Hotel and Catering Management, Textile Technology, Fashion Designs, Office Technology and Management, etc.
c. Some of the Universities of technology originally intended to absorb TVET graduates for higher degrees have in fact essentially become conventional Universities.
d. A number of Universities of Technology utilize facilities in neighboring Polytechnics for training of their Students.
e. The Federal Polytechnics (amendment) Act [15] now empowers polytechnics to produce middle and high level manpower and conduct applied research for adaptation of techniques. These new roles can only be achieved if the polytechnics are allowed to run their own degrees.

In 1988 the Aina Panel Report established an overall shortage-of 96.4% of TVET teachers and recommended an accelerated technical teacher production for the system. As a major advantage, the acute shortage of TVET teachers will be addressed if polytechnics start running their own practice-specific degree programmes.

Increase enrolment into TVET institutions: The Longe commission [6] as a way of increasing enrolments into TVET institutions recommended the drastic reversal of the pattern of students' enrolment in the tertiary institutions to ensure a preponderance of Polytechnic/College of Education students and achieve 4:1 in favour of TVET and colleges of education to university products. In addition it recommended the abolition of quota system in admission guidelines as early as 2000 A.D. This should be implemented without further delay in order to liberalize admissions. The 15 per cent budgetary allocation to the Education sector recommended for implemented from the 1992 budget of the Federal Government [6] should be made available for establishing and equipping more technical colleges which will be the feeder for the polytechnics.

Re-organization of the NBTE: The Longe Commission's Report recommended establishment of National Board for Agricultural Education to take over from NBTE the role of regulation, monitoring and accreditation of the activities of Colleges of Agriculture. It also recommended the harmonization of the activities of NUC, NBTE and NCCE through the creation

of National Higher Education Commission (NHEC) which will provide a framework for bringing the three agencies under a single umbrella. The three agencies will be subsumed as departments of the NHEC which will among other functions coordinate the activities of the entire higher education sector as a parastatal of FME with a D.G. while the three agencies will be departments to be headed by directors. This is intended to trim the three agencies as coordinating (not funding) agencies. However, ten years after the Longe Commission's Report, the FME National summit on Higher Education [16] in its resolutions was of the opinion that the supervising role of the statutory agencies (NUC, NBTE and NCCE) should be strengthened, particularly in the area of setting of academic standards and quality assurance. It therefore recommended that a National Commission for Polytechnics (NCP) be set up for more effective coordination of polytechnic education in Nigeria. This will rather reduce the activities of NBTE which is presently in charge of Polytechnics, Colleges of health Technology, Colleges of Agriculture, Technical Colleges, Enterprise Institutions and National Vocational Qualifications Framework (NVQF). This makes the NBTE's activities rather unwieldy. It is therefore the opinion of this paper that the creation of NCP will bring responsive supervision to the Polytechnics.

Disenfranchisement of TVET graduates by NBTE: Some policy guidelines of the NBTE in some cases are considered discriminatory to the products of TTVET. For example:

- The use of mainly degree holders (lecturers) for quality assurance exercises
- The preference of only lecturers (university graduates) as heads of departments over TVET graduates (instructors) even after they have acquired higher degrees and professional qualifications
- The employment of only degree holders as programmes officers
- Overloading of HND curricula with subjects on humanities. This places more burdens on the TVET students than their university counterparts and yet they are never considered good enough.
- The use of mainly degree holders as resource persons in designing curricula meant to impart technical knowledge. Most of these degree holders have academic background preparations distinctly different from those of TTVET background preparations.

Presently, NBTE has proposed a condition of service where the products of HND holders will be employed as lecturers. This will go a long way to protect the interest of TVET products within the TVET sector. The Board should also insist that Headship of academic programmes in the polytechnics should be products of any level of TVET. This will go a long way to build the confidence of the diplomats in the system.

Conclusion

The rest of the world is emphasizing skill empowerment and shifting attention from paper qualifications. TVET is the answer and Nigeria cannot afford to be left behind in the quest for economic emancipation through TVET. Establishment of TVET in Nigeria started on a very weak foundation and it earned it low social perception and acceptance. Nigeria has not been able to harness the full potential of TVET as a result of this. However, a lot of proactive steps have been taken by the government to reverse all

misconceptions about TVET and enhance its acceptability through the enquiry of various committees and commissions set up by it. More still need to be done by implementing the findings and recommendations of these committees in order to reposition TVET for better recognition and patronage.

REFERENCES

[1] Federal Ministry of Education, Technical and Vocational Education Development in Nigeria in the 21st Century (Master Plan for 2001 - 2010) Summary, Volume III.

[2] Olu, Aina (2001). Federal Ministry of Education, Technical and Vocational Education Development in Nigeria in the 21st Century (Master Plan for 2001 - 2010) Summary, Volume III. Keynote Address, Pp. VII- XV

[3] Federal Ministry of Education (1981). The National Policy on Education (NPE) 2nd Edition.

[4] Elliot, Walter (1945), Higher Education in West Africa, His Majesty's Stationary Office London Sir Walter Elliot Commission Report (April 1959 – September 1960).

[5] Federal Republic of Nigeria (1960). Ashby Commission Report on Higher Education in Nigeria.

[6] Report of the Commission on the Review of Higher Education in Nigeria (Higher Education in the Nineties and Beyond), Otherwise Known as the Longe Commission Report, 1991. Pp. 46, 64, 53.

[7] Report of the Committee on the Basic Purposes of Polytechnics/Colleges of Technology in Nigeria, Yaba College of Technology, 13th January, 1977. Pp. 4, 6-9, 19.

[8] Nworlu-Elechi, O. (2013), "Technical and Vocational Education for National Transformation" Proceeding of 1stASUP Zone D National Conference, Pp 21-37.

[9] Federal Republic of Nigeria (1985). Education (National Minimum Standards and Establishments of Institutions), Decree No. 16, A81.

[10] Yabani, A.M. (1989) National Seminar on Applied Research and Technology Adaptation for the Polytechnic Staffers, Proceedings of National Seminar, National Board for Technical Education, (25 – 29 September, 1989) Pp. 4 -5.

[11] Pamela, Sadauki (1989). National Seminar on Applied Research and Technology Adaptation for the Polytechnic Staffers, Proceedings of National Seminar, National Board for Technical Education, Pp. 4 -5.

[12] Perspectives of Quantities and Qualities in Nigerian Education: A Synthetic Report of the Bagauda Seminar, September 1-5, 1980.

[13] Report of the Committee to Look into the Modalities for Mounting Degree Programmes in Selected Polytechnics and Colleges of Education and Raising the Salary Scale of Principal Officers and Chief Lecturers to HATISS 15, (Otherwise Known as the Yabani Committee Report) March, 1999. Pp. 29-32, 37, 59-61.

[14] Bailey, J. and Graystone, J. (1991). NBTE II Project Staff Development in Technical Education. The British Council, ODA Projects Department, Report No. 3870.

[15] Federal Polytechnics (Amendment) Act, 2019. Federal Republic of Nigeria Official Gazette, No. 42, Lagos 12th March, 2021, Vol. 108, A85-96.

[16] Federal Ministry of Education (2001). Repositioning Higher Education in Nigeria, National Summit on Higher Education, 11th -16th March, 2002.