



EMERGING ISSUES IN TECHNOLOGY EDUCATION: EMPHASIS IN TECHNICAL TERTIARY INSTITUTIONS

***Ugwuanyi, C. E¹, Idoko B.² & Salaudeen, H.L.³**

Department of Computer Science Technology, Federal Polytechnic Ohodo, Enugu State

*ugwuanyichinonso1@gmail.com

Abstract

This study reviewed the concept of Emerging issues, Monotechnics, Polytechnics, colleges of education (technical), it examined Emerging Issues in Monotechnics, Polytechnics and College of Education (Technical). The Comparative Analysis of Emerging Issues in Monotechnics, Polytechnics and Colleges of Education (Technical) was done. It was concluded that Monotechnics, Polytechnics and Colleges of Education (Technical) are established for the study of technology and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. It was recommended among others that the Head of Service of the Federation should push for equal job placement between HND Certificate and First Degree Holders,

Keywords: *Emerging Issues, Monotechnic, Polytechnic, Technical, and Institutions*

Introduction:

Vocational and Technical Education (VTE) which is the type of Education that is geared towards equipping people with knowledge, skills and competencies required in specific occupation or more broadly in the labour market. This type of education can be acquired in Monotechnics, Polytechnics and Colleges of Education (Technical). In these post secondary school institutions where Vocational and Technical Education are offered, training should revolve round production of goods and services, narrowed down to specific trades in each departments that make up Vocational and Technical Education.

Societal and economic development depends on the strength of Vocational and Technical Education, especially at the Monotechnics, Polytechnics and Colleges of Education (Technical) level. This is because practical skills that VTE encompasses are mostly visible at these institutions. Monotechnics are single-subject institutions that offer specialised practical programs for the coordinated development of technical education. Similarly Polytechnics are post secondary schools that offer a more hand-on and applied education, it is more industry-responsive education because it offers students training in advance technical skills. In the same vein also, Colleges of Education (Technical) promote general and practical education among technical teachers, so as to enhance excellent performance of students in practical or technical subjects. Thus, the emerging issues in Monotechnics, Polytechnics and Colleges of Education (Technical) are linked, since these three institutions are similarly based on provision of practical skills to students, it enable them fit into the economic system which entails productions, provision of services, distribution and then consumption.

The difference between a monotechnic and a polytechnic is in the number of special skilled subjects offered. That is, while a monotechnic is a single-subject (technical) institution, a polytechnic is a multiple-subject (technical)

institution. On the other hand, Colleges of Education (Technical) are specialized institutions established to train teachers with technical proficiency.

There are a number of emerging or visible subject matters of interest in Monotechnics, Polytechnics and Colleges of Education (Technical) as providers of technology and technical education in Nigeria that affect Technical and Vocational Education (TVET). Federal Government of Nigeria (FGN, 2004) used TVET as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

Technical education was established by the British colonial masters on realization of the deficiencies and inadequacies of technical and vocational skills that were required for the production of services and the processing of raw materials to feed the ever demand of such in their homeland (Jahun, 2017). Training of such skills in Nigeria was considered cheaper and more convenient than to train them in Britain. The first set of such training institutions were established at Kaduna Technical School, Yaba Technical School and IMT Enugu which were later upgraded to Kaduna Polytechnic, Yaba College of Technology Auchu Polytechnic and Institute of Management and Technology Enugu to a National Diploma and Higher National Diploma awarding status from mere Certificates and proficiency test awards. From the above perspectives, the number of Polytechnics and Colleges of Technology continue to grow even after the colonial masters had left. At present there are many Polytechnics in Nigeria offering various courses leading to the award of Certificates, National and Higher National Diplomas.

According to National Board for Technical Education (NBTE, 2024), there are a total of 188 approved Polytechnics in Nigeria (93 are private owned, 54 are State owned and 41 are Federal owned), a total of 213 approved Monotechnics in Nigeria (61 are private owned, 59 are State owned and 93 are Federal owned). Nigerian Scholars (2024) gave a summary figure of 32 Colleges of Education (Technical) in Nigeria. These institutions as it were, are bedeviled by a number of thorny issues that are emerging that if not timely addressed, could negatively affect technical and technology education in Nigeria at the long run.

The emerging issues in technology education especially technical and vocational education programme of Polytechnics, Monotechnics and Colleges of Education (Technical) in Nigeria are hydra-headed because they emanate from many sources, therefore, multi-dimensional approaches is needed to tackle them. The issues can be surmounted if appropriate actions are taken by the stakeholders to address the specific challenges found to be directly or indirectly relating to each of them respectively.

Among the emerging issues under consideration are HND/B.Sc Dichotomy, Job placement Dichotomy between HND Certificate and First Degree Holders, Non-inclusion of monotechnics as beneficiaries of the Tertiary Education Trust Fund (TETFund), Enrollment decline in technology education offered in Monotechnics, Polytechnics and Colleges of Education (Technical); and Unbundling Computer Science course in Polytechnics, Monotechnics. The issue of dichotomy exists in spite of the fact that the basic entrance requirements of both the West African Examination Council (WAEC) of five credits and the Unified Tertiary Matriculation Examination (UTME) by the Joint Admissions and Matriculation Board (JAMB) are the same for Monotechnics, Polytechnics, Colleges of Education (Technical) and Universities. This is why, among other reasons, the Senior Staff Association of Nigeria Polytechnics (SSANIP) has called on the new administration to address the issue of dichotomy and segregation between holders of Higher National Diploma (HND) and Bachelor of Science degree (BSc) qualifications. Other emerging issues in post secondary education can be summarized under; funding and financing, facilities, brain drain, staff training and retention, curriculum of technical education, the apathy of political office holders/lawmakers towards education at Monotechnics, polytechnics and Colleges of Education (Technical) levels.

Conceptual Clarification

Concept of Emerging Issues:

Emerging issues refers to a new or evolving concern that has the potential to influence public policy, society and governance. Defining the component words in emerging issue will further provide a lucid view of the phrase. Emerging means something newly formed or prominent. It can also mean newly created or noticed and growing in strength or popularity. Thus anything that is emerging is something becoming widely known or established. Issue, on the other hand can be defined as a subject or problem that people are thinking or expressing and talking about. The words emerging and issues are often used together, especially in the context of describing, identifying or studying subject matter that have not been influential or important in the past, that might be influential or important or exigent now and in the future. Technically, emerging issue refers to a new or evolving concern that has the potential to influence public policy, society and governance, with regard to post-secondary institutions like Monotechnics, Polytechnics and Colleges of Education (Technical). Such issues could be national or global, but that demands an informed approach from governments, global organizations, communities, individuals or tutors. Emerging issues in Monotechnics, Polytechnics and Colleges of Education (Technical) has important ramifications for Nigeria's economic system.

Concept of Monotechnics:

Monotechnics are post-secondary educational institutions, where a single-specific technical subject is taught. Potokri (2014) defined Monotechnic as a single-subject institution of higher learning that offer specialized programmes. Monotechnics typically refers to institutions that specialise in providing technical education and training in a specific field or industry. These institutions focus on equipping students with practical skills and knowledge in areas such as Vocational Training, Technical Education and Skills Development. Examples of Monotechnics include; Technical Colleges, Vocational Schools, Institute of Technology and Trade Schools.

Monotechnics usually offer programmes in fields like:-

1. Automobile/Metalwork Technology
2. Building and Woodwork
3. Carpentry and Joinery
4. Business Studies
5. Electrical/Electronics Engineering
6. Computer Science
7. Construction Technology
8. Hospitality Management
9. Fashion Design

Concept of Polytechnics

A Polytechnic is a post-secondary educational institute that offers hands-on training in technical and technology related courses. Polytechnics in Nigeria offers Vocational Education and Training in specialised fields such as engineering, technology and applied sciences; they offer hands-on learning and apprenticeships to prepare students for the workforce. In the light of the above, Polytechnic can also be succinctly defined as an educational institution that offers a diverse range of applied and technical programmes, with a strong emphasis on practical and hands-on learning. Polytechnics focus on preparing students careers in fields such as engineering, technology, applied sciences and practical oriented vocational areas. They often collaborate closely with industry partners to ensure that their curriculum aligns with the needs of the job market.

Historically, the term Polytechnic is derived from the Greek words "poly" meaning 'many', and "techne". Meaning 'art' or 'skill'. Therefore a polytechnic institution is one that provides education in various technical and skill-based disciplines.

Concept of College of Education (Technical)

Basically, College of Education are professional training colleges for teachers. Specifically, College of Education (Technical) can be defined as a post-secondary institute of higher learning especially one that provide general or liberal arts education, in addition to requisite technical or vocational education and training for technical teachers or would-be technical teachers.

Colleges of Education (Technical) offers hands-on training and practical skills to prospective technical teachers, who desires to teach technical subjects like Technical Drawing, Auto Mechanics, Metalwork, Food and Nutrition, Basic Technology, Vocational Education, Carpentry and Joinery, Building and Woodwork, Business Studies, entrepreneurship etc. Thus, graduate of College of Education (Technical) are required to be equipped with requisite skills and knowledge that enhances their excellent performance in Technical education practice and management.

There are about 205 accredited Colleges of Education and other NCE certificate-awarding institutions in Nigeria, consisting of 27 federal, 87 private and 54 state colleges of education in Nigeria. Examples of Colleges of Education (Technical) include but not limited to the following:- Federal College of Education (Technical) Akoka Lagos State, Federal College of Education (Technical) Umunze Anambra State, Kogi State College of Education (Technical) Kabba Kogi State, Enugu State College of Education (Technical) Enugu-Abakaliki Road Enugu State, Federal College of Education (Technical) [Female only] Gusau Zamfara State, Federal College of Education (Technical) Asaba Delta State.

Emerging Issues in Monotechnics

Monotechnics in Nigeria contributes significantly to the development of macro-economic activities in all sectors of the country's economy. This is because monotechnics are involved in the training of young persons in skill acquisition in specific trade component necessary for specific task in the production sector of the economy. As a result of the importance of Monotechnics in the areas of youth empowerment in terms of specific skill acquisition for gainful employment in the production sector of the economy, some experts have been clamouring for more funding for Monotechnics, For instance, the Provost of Federal College of Forestry Ibadan Dr, Ibrahim Lawal, during the recently concluded convocation ceremony of the College, called for the inclusion of Monotechnics across the country as beneficiaries of the Tertiary Education Trust Fund (TETFund) in order to aid research as well as infrastructural development.

Thus, the major emerging issue in Monotechnics in today's Nigeria is about more government funding of the institutions that falls under this category. TETFund, which is an initiative of the federal government has carried out many infrastructural development projects in many institutions of higher learning in Nigeria, but incidentally and regrettably Monotechnics have been left out of their focus. With adequate funding, Monotechnics can further be empowered to carry out their mandate in terms of providing training to youths in emerging area of automobile mechatronics, artificial intelligence, building construction technology, vocational entrepreneurship and new business development initiatives.

Furthermore, the apathy of political office holders/lawmakers is another emerging issue in Monotechnics education. Political office holders hardly give scholarship or bursary award to Monotechnics students, unlike to their counterpart in other institutions of higher learning. In the same vein, lawmakers do not allocate enough funds to Monotechnics during appropriation of budgetary provision for Ministries and parastatals. This apathy of political office holders/lawmakers towards Monotechnics has reverberating effects on the quality of research that takes place in Monotechnics, because without adequate funding, researches on new issues, new methods or new innovation in the production sector of the economy will be hampered. Students will be restricted or limited to old way of learning and of doing things. For instance, in Monotechnics, where Automobile Technology is offered, training should be geared towards new skills acquisition in electric car maintenance, automobile mechatronics

equipment and other new innovations in automotive technology. Expertise in production of strong Lithium battery cells, helps in the durability of electric automobile that make use of lithium battery. The end users or motorists who drive electric vehicles will receive value for their money, when they purchase strong lithium battery cells produced by Monotechnic-trained technicians for their electric-powered motor vehicles. Automobile mechatronics devices like fuel economy sensors, safety devices chips, emission control sensors etc, are being introduced in modern automotive vehicles and equipment. These equipment and devices are novel to auto industry in Nigeria, as such Monotechnics that offers automotive technology need to be empowered to carry out researches in this area, so as to help graduates of the institution to acquire specific skill in emerging technologies in this field.

Similarly, Monotechnics that offers construction technology need to be adequately funded to meet the demand of new construction methods that focus on modern way of erecting structures and modern design of buildings and structures in specific. Also in Business creation and growth, there are new trends and initiatives that capture the essence of vocational studies in Monotechnics. With the advent of the widespread usage of Compressed Natural Gas (CNG) powered automobiles, business ventures that deals in the sales and distribution of CNG and LPG are springing up. Researchers in Monotechnic should therefore be encouraged with funds to initiate technical expertise that will serve as spring board to would-be entrepreneurs in this area. This will have positive effect on the economy of the country as macro-economic activities will be boosted. Thus Monotechnics should train their students in the skill areas that revolve around new technologies in the production/service sector.

Emerging Issues in Polytechnics

The importance of Polytechnic education in the country cannot be over-emphasised. The curriculum of Polytechnic education is such that practical component of course work is much higher than theoretical component unlike universities. However, due to the nature of Nigerian society which prioritise paper qualifications more than practical ability of an individual, certificates from Polytechnics are seen as inferiors to that of universities and even degree awarding Colleges of Education. This has thus led to serious discuss on the HND-Degree dichotomy or discrimination in both public and private establishment. Emerging issues from this discuss has generated public interest in recent years. In some Federal parastatals, Polytechnic graduates cannot go beyond grade level 14 except of course they acquire post graduate diploma from a reputable university. Aside from the problem of dichotomy and discrimination between polytechnic certificate and university degree, there are also other emerging issues revolving around perennial problem of funding, poor and inadequate facilities and staffing, irrelevant or outdated curriculum, low ICT and Entrepreneurial content and the problem of cultism which is rife among polytechnic students.

Furthermore, the polytechnic in Nigeria are ill-equipped to meet recent developing trends in automobile industry, building and construction industry, business and entrepreneurial world. Technical courses like industrial Technical Education, Business Education, Vocational and Entrepreneurial Education etc requires capital intensive equipment and teaching and learning technologies, which the government and other stakeholders are ill-motivated to purchase. This is hampering the delivery of good technical education to students in these institutions.

Also worthy of note among the emerging issues in Polytechnics in Nigeria, is the new policy directive requiring HND graduates to present certificate of one-year Industrial Training (IT) before deployment for the mandatory National Youth Service Corps (NYSC) scheme, with effect from this year. This emerging issue further fuels the discrimination between polytechnics and university graduates. This requirement, which does not apply to university and colleges of education graduates, has put HND graduates in another dilemma, in addition to other emerging issues earlier stated.

Aside from the proposed one-year IT policy, there are other emerging issue considered discriminatory and frustrating to polytechnic students as well. One of them, also recent and emerging, is the policy of OND and HND holders writing Direct Entry Joint Admission Matriculation Board (JAMB) examination, for entry into university first degree programmes. Other emerging issues are placement on Grade level 7, non-compliance of post-graduate

diploma (PGD) in conversion to another cadre and in upgrading to progress beyond grade level 14 in the civil service, to become director and head departments.

This argument for these policies and emerging issues are premised on the distinct goal and technical nature of Polytechnic education, lesser theoretical content, fewer course, low cut-off point for entry and not having professors unlike in universities. Plausible reason often cited for these emerging issues is that polytechnics and monotechnics veered from technical and technological labour development purpose, to offer humanities, social sciences and administration programmes. Indeed, this tends to defeat the essence of polytechnic education, to an extent, as they now produce graduates loaded more with theoretical background and less practical skills. However, Federal and State government may not have also provided enough funds and state-of-the-art facilities to enable such institutions to produce the desired competent manpower. Thus, many stakeholders have severally called for adequate funding, and upgrading of standard polytechnics and monotechnic to technical and technology degree focused varsities, for better service delivery and productivity in our job-skill market.

Emerging Issues in College of Education (Technical)

College of Education (Technical) are post-secondary institute of higher learning especially one that provide general or liberal arts education, in addition to requisite technical or vocational education and training for technical teachers or would-be technical teachers. Colleges of Education (Technical) traditionally offers hands-on training and practical skills to prospective technical teachers, who desires to teach technical subjects like Technical Drawing, Auto Mechanics, Metalwork, Food and Nutrition, Basic Technology, Vocational Education, Carpentry and Joinery, Building and Woodwork, Business Studies, entrepreneurship etc. However, due to low enrolment in technical courses by prospective students, management of colleges of Education (Technical) are admitting students from social sciences, humanities and other branches of general education. This negates the ethos of colleges of education (Technical), which centres on specific training of technical teachers. Graduate of Colleges of Education (Technical) are required to be equipped with requisite skills and knowledge that enhances their excellent performance in Technical education practice and management, but without adequate funding in terms of provision of necessary facility and equipment to train teachers in technical and vocational practice, the essence of their establishment will be defeated. This is the order of the day as most Colleges of Education (Technical) have inadequate or obsolete equipment to undertake some essential technical courses, for instance, functional auto/metal lab, building/woodwork laboratory and electrical/electronics laboratory.

Aside from the issue of funding, there is the issue of accreditation for degree awarding colleges of education. Some colleges of education (Technical) that are degree awarding colleges do not have the necessary requirements nor meet the standard expected of a degree awarding institution. Many of their lecturers do not possess doctorate degrees which is a major criterion in universities where degrees are awarded,

Comparative Analysis of Emerging Issues in Monotechnics, Polytechnics and Colleges of Education (Technical)

Emerging issues in Monotechnics, Polytechnics and Colleges of Education (Technical) are intertwined with respect to funding, infrastructural deficit, staff shortage and dichotomy/discrimination issue. For academic convenience, these issues are treated collectively and comparatively analyzed. However, the issues are isolated and comparatively analyzed between Monotechnics and Polytechnics on one hand and then Colleges of Education (Technical) on the other.

1 - HND/B.Sc Dichotomy: Rating Higher National Diploma (HND) as inferior to Bachelors Degree has adversely affected different courses offered by the polytechnics at HND level. Alake in Joseph (2024) described the dichotomy between polytechnic and university certificates as the greatest threat to the survival of polytechnic education. According to Alake, the polytechnic system is further bedeviled by the fact that the people making policies for them are university graduates, saying: "They are the people that set the bar." The Nigerian Council on

Education, which is the highest decision-making body, has refused to allow the two certificates to be at par. Alake in Joseph (2024) however, noted that despite the perception against HND, it has its own merit, especially in the areas of skill acquisition and vocational studies, which would make holders of the certificate job creators and not job hunters.

2 - Job placement Dichotomy between HND Certificate and First Degree Holders: In Nigeria's civil service, holders of HND certificates awarded by polytechnics and monotechnics cannot rise above grade level (GL) 14 or become Directors in the civil service until and unless they acquire additional academic qualifications such as a postgraduate diploma or master's certificates as awarded by universities. However, university graduates are statutorily qualified to rise to grade level (GL) 17 as the peak of their career in the civil service in the country. According to Suleiman (2022), the policy also affects employees' entry level into the civil service. While bachelor's degree holders are placed on GL08, those with HND certificates are placed on GL07. The development has attracted complaints from many Nigerians including the leadership and members of the National Association of Polytechnic Students (NAPS), Academic Staff Union of Polytechnics (ASUUP) and the Senior Staff Union of Polytechnics (SSANIP). They described the policy as discriminatory and unfair.

3 - Non-inclusion of monotechnics as beneficiaries of the Tertiary Education Trust Fund (TETFund): The Tertiary Education Trust Fund (TETFund) was originally established as Education Trust Fund (ETF) by the Act No 7 of 1993 as amended by Act No 40 of 1998 (now repealed and replaced with Tertiary Education Trust Fund (Establishment, Etc.) Act No. 16 of 2011). It is an intervention agency set up to provide supplementary support to all levels of public tertiary institutions with the main objective of using funding alongside project management for the rehabilitation, restoration and consolidation of Tertiary Education in Nigeria.

The main source of income available to the Fund is the 2 percent education tax paid from the assessable profit of companies registered in Nigeria. However, the Tax was reviewed upwards to 2.5 percent by the Finance Act 2021 and further increased to 3 percent by the Finance Act 2023, effective September 2023.

The funds are disbursed for the general improvement of education in federal and state tertiary education institutions specifically for the provision or maintenance of:

- (a) Essential Physical Infrastructure for teaching and learning;
- (b) Instructional material and equipment;
- (c) Research and Publications;
- (d) Academic Staff Training and Development; and
- (e) Any other need which, in the opinion of the Board of Trustees, is critical and essential for the improvement and maintenance of standards in the higher educational institutions.

In spite of all these provisions, monotechnics are not included as beneficiaries of the Tertiary Education Trust Fund (TETFund), to aid research and infrastructural development. Consequentially, Scholars have begun to draw Federal Government's attention to this issue. For instance, Lawal in **Olaitan (2024)** has called for the inclusion of monotechnics across the country as beneficiaries of the Tertiary Education Trust Fund (TETFund), to aid research and infrastructural development. This clarion call is apt because it would be unfair to continue to exclude monotechnics as beneficiaries of TETFund. If adequate funding is made available for monotechnics, most of the problems confronting the society would have become a thing of the past. Therefore, there is urgent need for the Federal Government to enlist monotechnics as beneficiaries of the TETFund. With the monotechnics benefitting from TETFund, it would go a long way in helping them towards giving our children the best of education.

4 - Enrollment decline in technology education offered in Monotechnics, Polytechnics and Colleges of Education (Technical): The challenges of enrollment decline in technology education and its related educational programs seem to have become common issues among the developing nations of the world, Nigeria inclusive.

For instance, African Economic Outlook (2010) reported that between the year 2001 and 2005, enrollment in technical and vocational education in North Africa was 22.95%, Latin America was 11.6%, South Eastern Asia was 9.5%, and Sub-Saharan Africa, Nigeria inclusive was 5.2% of the total enrollment in schools. In Nigeria, this ugly trend in enrollment into Monotechnics, Polytechnics and Colleges of Education (Technical) programmes seem unchanged. The higher education students' preferences in Nigeria, between year 2007 and 2010 clearly demonstrated that the youth continue to indicate more interest in non-technical academic programmes than technical or technology-oriented programmes. In 2007, 2008, 2009, and 2010, the students' preferences for university education were 911,679, 1,192,050, 1,184,651, and 1,330,531 respectively. Whereas, the students' preference for Polytechnic, Monotechnic, and College of Education (Technical) within the same period were 167,836, 310,022, 342,908, and 45,140 (Shu'ara, 2010).

The record of students' preference for Polytechnic, Monotechnic, and college of education, especially in 2010 show a very disturbing situation of enrollment decline in these all important aspects of educational system in Nigeria. It has been observed that this enrollment decline syndrome in technology education has persisted over the years, most especially, in the technical and vocational education area in Colleges of Education (Technical).

Ebenehi and Baki (2015) investigated the challenges of enrollment in technology education in Nigeria with particular focus on Technical and Vocational Education (TVE) programme in colleges of education. The data gathered were transcribed and classified under four categories. The categories include personal-related challenges, societal/environmental-related challenges, institutional-related challenges, and governmental-related challenges of enrollment into TVE programme in Colleges of Education (Technical) in Nigeria. Findings under personal-related challenges of enrollment into TVE program include interest, entry academic qualification or requirements, economy, and career aspiration of the individual candidate. Findings under societal/environmental-related challenges of enrollment into TVE programme were family influence, peer group influence, public attitudes and comments about TVE. Institutional-related challenges include admission policy or entry requirements, capacity of training facilities, instructional personnel availability, fees or tuition, infrastructures, and advertisement of TVE programme. Findings under governmental-related challenges of enrollment into TVE programme include admission policy of cut-off points, funding of the program, training and re-training of personnel, supervision, curriculum review and evaluation of TVE programme, public re-orientation or enlightenment, and special bursary or scholarship awards to TVE students as a means of motivation.

5 - Unbundling Computer Science course in Polytechnics, Monotechnics: The Nigerian federal government has announced unbundling the Higher Education Diploma course in Computer Science. This was disclosed in a recent letter signed by the Executive Secretary of the National Board for Technical Education, Prof Idris Bugaje, addressed to all Polytechnics and Monotechnics nationwide. Accordingly, the computer science program in Polytechnics and Monotechnics will cease to exist.

Consequently, Aremu (2024) quoted NTBE saying there will no longer be admissions into the HND Computer Science programme from the 2024/2025 academic session. Meanwhile, students who have already been admitted into the former programmes are given up to 2025 to phase out. The new specialized areas floated out of Computer Science are as follows: HND Artificial Intelligence, HND Networking and Cloud Computing, HND Software and Web Development, HND Cybersecurity and Data Protection.

Conclusion

Monotechnics, Polytechnics and Colleges of Education (Technical) are established for the study of technology and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. From the time these institutions were first established to date, certain issues and emerging ones have continued to be a thorn on their flesh and a cork in the wheel of

their progress. These issues are multi-dimensional, cross-cutting and peculiar and have very strong potency to derail or frustrate the entire concept of technical and technology education in Nigeria. For instance, HND/B.Sc Dichotomy, Job placement Dichotomy between HND Certificate and First Degree Holders, Non-inclusion of monotronics as beneficiaries of the Tertiary Education Trust Fund (TETFund); and Enrollment decline in technology education offered in Monotronics, Polytechnics and Colleges of Education (Technical) are established extant issues affecting our technical programmes that if not checked, would spell doom for the ever growing population of Nigeria.

Recommendations

The following recommendations are hereby made :

1. The Federal Government, through the instrumentality of the Legislature or Executive feat, should abolish the HND/B.Sc Dichotomy. Accordingly, the bill, which was passed at the last 9th National Assembly, abrogating dichotomy between HND and BSC holders should signed into law by the incumbent administration. Alternatively, an Executive Order can be issued by The President of the Federal Republic of Nigeria in that regard,
2. The Head of Service of the Federation should push for equal job placement between HND Certificate and First Degree Holders,
3. Deliberate policy actions such as strict compliance to Universities admission policy should be enforced such that only applicants that meet the cut-off bench would be admitted into Universities. With this measure, the issue of enrollment decline in technology education offered in Monotronics, Polytechnics and Colleges of Education (Technical) would be drastically reduced. Furthermore, Government needs to improve funding to adequately meet the basic requirements of TVE and make technology and technical education more attractive. Federal and State Ministries of Education should also embark on serious enlightenment campaign and re-orientation of the society towards understanding the correct concept and importance of TVE; and
4. The unbundling of Computer Science course in Polytechnics and Monotronics should be sustained to encourage professionalism and pushing of intellectual boundaries in the Computer science discipline.
5. Modern equipment that meets the requirement of emerging technologies in automobile/metalwork industry and building/construction technology should be provided by government Monotronics, Polytechnics and Colleges of Education (Technical) that offer Industrial Technical Education as a course.
6. Business friendly environment should be created and encouraged by government so as to promote business creation and growth and entrepreneurial endeavors among graduates of Monotronics and Polytechnics
7. Annual budgetary allocation for technical education across Monotronics, Polytechnics and Colleges of Education (Technical) should be improved by the executive arm of government and also the lawmakers.
8. Technical Teachers Training Programme should be revitalized so as to improve the efficiency of technical teachers in Monotronics, Polytechnics and Colleges of Education (Technical)
9. New curriculum should designed and implemented to accommodate new teaching and learning methods for emerging technologies and improved way of production, distribution and consumption of new products and services in the country's economic system

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