

RE-VENTILATING THE SUFFOCATED POLYTECHNIC SYSTEM FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Polytechnic education plays a crucial role in the technological and economic development of any nation by equipping individuals with practical and technical skills essential for industrial growth. However, Nigeria's polytechnic system has faced significant challenges, including inadequate funding, societal bias, outdated curricula, poor infrastructure, and limited recognition in the labor market. This study examines the issues suffocating the Nigerian polytechnic education system and explores strategies for its revitalization to ensure sustainable development. Using Performance Management Theory, particularly the Goal-Setting Theory, as a framework, the study highlights the importance of aligning institutional objectives with national development goals. Key strategies for reform include curriculum overhaul, infrastructure development, enhanced funding, stronger industry collaboration, policy reforms, emphasis on research and innovation, public perception enhancement, and continuous professional development for educators. The study underscores the necessity of fostering a culture of excellence, strategic agility, and sustainable institutional management to reposition Nigerian polytechnics for global competitiveness. The paper suggest that revitalizing polytechnic education requires a multi-stakeholder approach involving government agencies, industry players, educators, and policymakers. Proper implementation of recommended strategies can transform polytechnics into centers of innovation and skill development, bridging the gap between education and industry needs.

Keywords: Polytechnic Education, Sustainable Development, Curriculum Reform, Industry Collaboration, Policy Reform, Nigeria

1. Introduction

Polytechnic education is quite inevitable in the pursuit of technological development of any country. Elements that contributed to sustainable development of polytechnic education are creativity, innovation, networks and partnerships, staff development programme, teaching methods, generic skills, industrial relations and internships, counseling, entrepreneurship, ICT skills, interest, recognition, knowledge, competency-based training, articulation, and commitment of management. On these, the Nigerian polytechnic education system was established to provide technical and vocational training, aiming to produce skilled manpower essential for the nation's

industrialization and economic development. However, despite their foundational objective, polytechnic education in Nigeria has faced systemic neglect, policy inconsistencies, and societal biases that have hindered its effectiveness. While other countries have redefined and modernized their polytechnic education to align with evolving industry demands, Nigeria's polytechnics continue to struggle with outdated curricula, inadequate infrastructure, and limited recognition in the labor market.

The historical background of polytechnic education in Nigeria dates back to the colonial era when technical colleges were established to address manpower shortages. The Federal Government later upgraded these colleges to polytechnics, enacting the Federal Polytechnics Act in 1979 to define their roles in providing practical and professional training (Innocent, 2019). Today, Nigeria has over 150 polytechnics, yet their contributions to technological development remain underutilized due to issues such as poor funding, outdated teaching methodologies, weak industrial linkages, and the persistent devaluation of polytechnic qualifications compared to university degrees (Afolayan, 2011; Awodi, 2019; Petinrin, Agbolade & Petinrin, 2021).

One fundamental issue is the outdated conceptual framework of Nigerian polytechnic education. Unlike in countries such as Singapore, where polytechnics offer Certificate, Diploma, and Advanced Diploma programs, Nigerian polytechnics primarily award National Diploma (ND) and Higher National Diploma (HND) certificates, creating ambiguity in their role within the labor market (Innocent, 2019). Furthermore, the curriculum has failed to evolve in response to global technological advancements, leading to a skills gap between graduates and industry needs, particularly in emerging sectors such as renewable energy and information technology (Payton, 2024). Additionally, the lack of a dedicated regulatory body akin to the National Universities Commission (NUC) for universities has resulted in fragmented governance and weak policy advocacy for polytechnic institutions. This policy neglect has led to infrastructural decay, poor staff development programs, and inadequate funding, further diminishing the quality of polytechnic education (Buhari & Olajide, 2023). The societal preference for university education has also contributed to the marginalization of polytechnics, limiting graduates' employment prospects and discouraging potential students from enrolling in polytechnic programs (Ukpai, 2020). Thus, addressing these challenges requires a comprehensive approach that includes policy reforms, curriculum restructuring, infrastructural investments, and a societal shift in perception. Polytechnic institutions must be repositioned as centers of excellence for technical and entrepreneurial training, with stronger industry linkages, modernized teaching methods, and improved recognition within the educational system.

Research Methodology

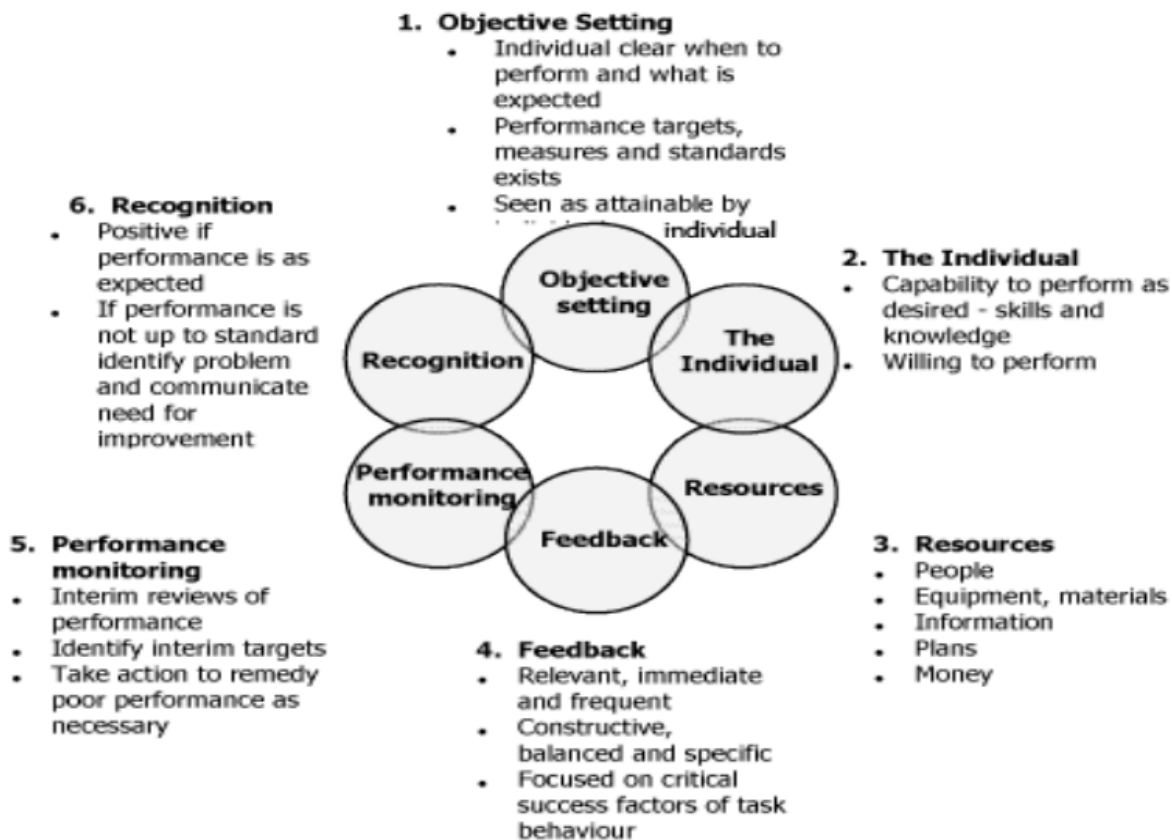
The study adopts doctrinal and empirical research methods. The doctrinal research method otherwise known as the library-based research. It means theorizing without considering the practical consequences, which means in this study shall wade through both primary and secondary sources.

Theoretical Foundation of the Study

Performance Management Theory in Revitalizing Polytechnic Education

The increasing complexities and challenges facing polytechnic institutions have necessitated the adoption of comprehensive management strategies to enhance their performance and sustainability. In response, **Performance Management Theory** has gained significant attention as a strategic approach to optimizing institutional effectiveness, particularly in times of economic and structural constraints. Performance management is a systematic application of processes aimed at improving outcomes by aligning internal capabilities with strategic goals (See figure 1).

Rather than relying solely on external factors such as government interventions or economic growth, polytechnics must focus on internal mechanisms to enhance efficiency, quality education, and institutional sustainability. Performance management, in this context, ensures that all stakeholders—including administrators, faculty, and students—understand their roles in contributing to the overarching goal of revitalizing the polytechnic system. It emphasizes effective people management, institutional goal alignment, and the creation of an enabling academic and administrative environment that fosters innovation, productivity, and sustainable development.



Source: Adapted from Philomena (2021)

However, there is no single universally accepted model of performance management, as scholars have approached the concept from different perspectives. For this study, we adopt the Goal-Setting Theory of Performance Management to provide a framework for reinvigorating the polytechnic

system.

The Goal-Setting Theory and Its Relevance to Polytechnic Transformation

Proposed by Edwin Locke in 1968, the Goal-Setting Theory asserts that organizations, including educational institutions, should establish a shared understanding of objectives and the strategies to achieve them. This theory is particularly relevant to polytechnics, as it underscores the importance of clear, well-defined goals in driving institutional reforms and achieving superior performance. Furthermore, the theory highlights three critical contextual variables—organizational culture, institutional climate, and strategic human resource integration—as essential components for effective performance management. These factors play a crucial role in shaping policies and practices that enhance the overall efficiency and sustainability of polytechnic institutions.

Thus, applying this theory, polytechnics can be characterized by their level of awareness regarding systemic challenges and their commitment to seeking and implementing suitable solutions. This approach ensures that performance management is not just an administrative function but a transformative tool for re-ventilating the suffocated polytechnic system, fostering innovation, and achieving sustainable development.

Conceptual Review

Historical Development of Polytechnic Education in Nigeria

According to Ukpai (2020), in pre-independent Nigeria, the training of technical personnel was largely a private arrangement by companies and organizations. This effort was augmented by the government in 1952 when it established the Yaba Higher College of Nigerian of Arts, Science and Technology, which had branches in Enugu, Ibadan and Zaria. Technical institutions were also established at Enugu and Kaduna in 1958, Ibadan in 1960 and Auchi in 1964. In 1987, the colleges became polytechnics. Decree 33 of 1979, which gave legal power to the establishment of Polytechnics in Nigeria, among other things, states that the main purpose of polytechnic education is to produce middle-level manpower to manage the nation's economy. To Idoko in 2005, these Polytechnics are to engage in researches suitable for developing human and material resources needed by the nation's industries and economy (Ukpai, 2020).

Meaning of Polytechnic Education

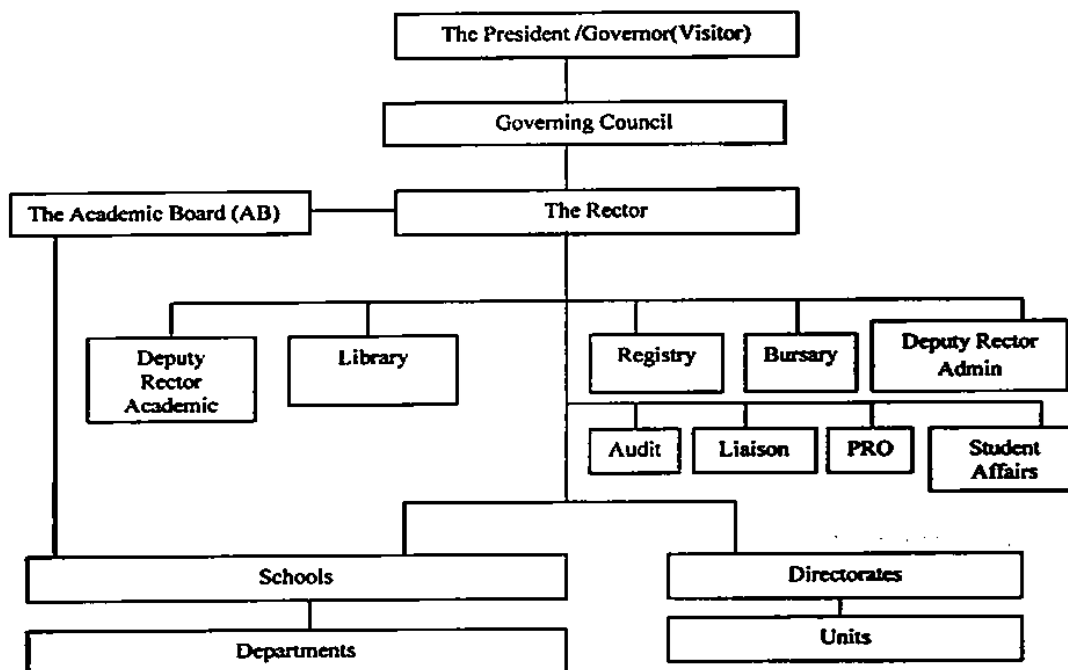
Polytechnic education is a specialized form of tertiary education designed to equip individuals with practical and technical skills that are directly applicable to various industries and economic sectors. As emphasized by Ukpai (2018), this type of education focuses on skill acquisition and hands-on training, preparing graduates for immediate engagement in the workforce. The Federal Republic of Nigeria (FRN) also recognizes polytechnic education as a crucial component of the nation's educational framework, particularly as the final stage in the 6:3:3:4 system of education, as outlined in the National Policy on Education (NPE). The primary objective of polytechnic education is to bridge the gap between theoretical knowledge and real-world applications. Unlike traditional university education, which often emphasizes theoretical learning, polytechnic institutions prioritize vocational and technical training, fostering innovation, self-reliance, and entrepreneurship (Afolabi & Taleat, 2024). This system of education plays a vital role in national development by promoting full employment opportunities, economic growth, and wealth creation.

Furthermore, it contributes to social stability by reducing the prevalence of social vices such as cultism, violence, bribery, and corruption. In recent years, polytechnic education has gained even greater significance due to the increasing global demand for skilled professionals in technology, engineering, and vocational fields. Scholars such as Okolie, Elom, Igwe, Binuomote, Nwajiuba and Igu (2020) highlight that polytechnic education serves as a catalyst for industrialization and technological advancement, particularly in developing economies. Additionally, the integration of digital learning and emerging technologies into polytechnic curricula enhances students' adaptability to the ever-evolving job market.

Nigerian Polytechnics Management

The Effective Management of Polytechnic education is both external and internal dimensions. At the external dimension, the federal government through the National Board for Technical Education (NBTE) controls the polytechnics. NBTE is a body charged with the coordination of polytechnic education management in the country (Ukpai, 2012). To function, the NBTE undertakes certain activities to improve quality of polytechnic education in Nigeria, such as accreditation of courses; approval of courses and programmes; maintenance of minimum academic standards; monitoring of polytechnics; giving guidelines for setting up of polytechnics; monitoring of private polytechnics; prevention of the establishment of illegal campus; and implementing appropriate sanctions (Ukpai, 2020).

Again, the internal management of each polytechnic could be given in a simple organogram. According to the Students' Handbook (2012), the first is the Visitor who is usually the Head of State or the Head of Government that established it (The President in case of federal polytechnic and the Governors in case of state polytechnics). The second is the Rector, the head of the polytechnic, the apex of the management structure within each polytechnic is the Governing Council, headed by the Chairman, charged with the administrative functions in the areas of goal setting, policy formulation, staff development, general discipline, budget approval and liaison activities with the government. In addition to this, there is the Academic Board (AB), headed by the Rector and the Registrar as the Secretary (Ukpai, 2020). The AB regulates the academic activities of the polytechnic following the general guidelines provided by the NBTE. In Nigeria, polytechnics are run through committee/board systems which are either responsible to the Governing Council or the Academic Board (AB). The above explanations can be represented in an organogram thus:



Source: Adopted from (Ukpai, 2020): Registry Unit, Akanu Federal Polytechnic

Vision 2020 and Polytechnic Education

The vision and mission of establishment of polytechnic is to develop the need of the society technologically. Provision is made for polytechnic education and the necessity of skill acquisition and training; entrepreneurship, well-equipped workshops and laboratories in Vision 2020. About 80% of what humanity embarks upon worldwide requires technical and vocation skills (Petinrin et al., 2021). Polytechnic education through skill acquisition is the master key that unlocks the country's future that will facilitate the Nation to harness and distribute her vast resources in manufacturing, mining, industry and agriculture. It has the potential to address youth unemployment and empower self-employment in the nation through science and technology. These youths can then be transformed into competent citizens and highly skilled men and women capable of competing word wide. Former President Goodluck Jonathan government transformation agenda plan in continuation of his predecessors on Vision 2020 craves to develop Nigerians capacity needs to meet development objectives, through:

- i. Highly-skilled world-class manpower and
- ii. World class institutions in Nigeria with:
 - World class infrastructure;
 - World class learning resources; and
 - World class teachers.

In order to achieve these objectives, a 4-year strategic plan was set, which includes:

- i. Establishing National Vocational Qualification Framework (NVQF).
- ii. Polytechnics to award B.Tech. degrees.
- iii. Parity between degree and HND.

- iv. Increase awareness and sensitization for Technical Vocational Education and Training (TVET).
- v. Review of 2001 blueprint on TVET.
- vi. Production of science equipment for laboratories.
- vii. Fabricating science and technical instruction materials for technical colleges, etc.

These goals and objectives are not far from the ones contained in the National Policy for Education and the National Board for Technical Education (NBTE) Act of 1985. It is unfortunate that the vision on polytechnic education was dead before its implementation because of lack of vision, drift from industry to polytechnic staffers, corruption and political propaganda (Petinrin et al., 2021). As industries are collapsing so also the vision and mission of establishing polytechnics is going down. The products of polytechnics are expected to be self-sufficient and employable. Therefore, polytechnic curricula need to be re-examined to meet job market. Figure 1 depicts requirements for graduates to be employable.

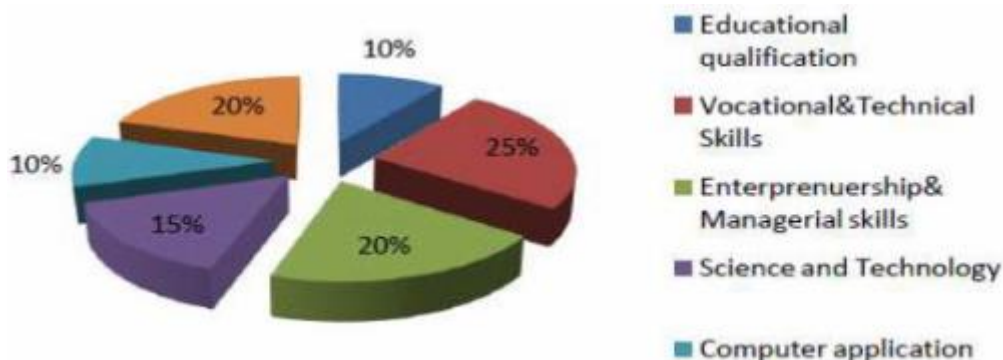


Fig. 1: Requirements for graduates to be employable (Dung-Gwon 2014)

Polytechnic Education and National Development

According to Doern in 2008, a polytechnic is a higher education institution that is established to focus on education concerning applied technology. Polytechnics Canada defines polytechnic education in this twenty-first century as a “career-focused applied education that spans trades through advanced degrees, delivered in an environment where students receive hands-on training that enables them to apply more of their skills” (Innocent, 2019). Basically, polytechnics are regarded as technological institutions that produce technological manpower for the technological advancement of a country. Polytechnic education emphasizes personal development in the areas of teamwork, leadership, communication, practical problem-solving, critical thinking, and analytical skills. This type of education is vital to the technological growth and development of any country (Ebele, 2014). There is no nation that can grow and develop technologically without technical education. It is important to note that polytechnic education is designed to blend theory and practice in order to solve real-life problems for the benefit of society. Polytechnics are established to produce high-quality technical manpower required for technological development and self-reliance of the country (Ebele, 2014).

Moreover, polytechnic education is key to industrial growth. It has an industrial orientation. Most practicals conducted in the polytechnics have industrial applications. Polytechnic education provides prospective employees with hands-on practical experience, skills, and knowledge that

meet industrial needs (Amedorme et al., 2014). In other words, polytechnic students are trained to fit into the industry. Polytechnic graduates are marketable. This is because they are equipped with hands-on skills that are needed to solve practical or real-life problems. This makes them highly marketable in the labor market. Additionally, polytechnic graduates are prepared to become self-employed (Innocent, 2019). They are equipped with the skills necessary to create jobs for themselves and for other people, thus contributing to the economic growth and development of their country.

Additionally, Obasi (2019) further highlighted several contributions of polytechnics to national development including:

- (i) **Manpower Generation:** The polytechnics produce various levels of manpower deployed in the private and public sectors of the economy. Available statistics show that between 1996 and 2003, the polytechnics produced 157,963 National Diploma graduates and 87,802 Higher National Diploma graduates in 89 varied courses and programmes ranging from arts to engineering.
- (ii) **Fabrication of Tools (Prototypes):** Many polytechnics in Nigeria have recorded great measure of success in simple tool and machine production. Some of their products awaiting refinement and sponsorship for commercial production include Cassava Processing machine, Rice Parboiling Equipment, Palm Kernel Cracker, Maize Shelling machine, Yam Pounding machine, Robots, Electric Oven, etc.
- (iii) **Research and Development:** The Polytechnics have also been involved in researching on certain aspects of our material life, such as food seasoning and preservation techniques.
- (iv) **Agricultural Production:** The Federal Polytechnics and many others engage in direct production of food crops such as palm fruits, and vegetables; and in animal production such as poultry, goats, snails, fish, cows, etc. (Obasi, 2019).

The General Challenges Facing Polytechnic Education in Nigeria

Polytechnic education in Nigeria is a vital component of the nation's educational framework, aimed at producing skilled technical and vocational manpower. However, despite its importance, polytechnic education faces several challenges that hinder its effectiveness and contributions to national development.

1. Inadequate Funding:

A major challenge confronting polytechnic education in Nigeria is inadequate funding. According to Odu (2011), insufficient funding has resulted in poor infrastructure, lack of modern equipment, and inadequate teaching materials. The funds allocated to polytechnics are often insufficient to cover operational costs, leading to a decline in the quality of education provided (Ekpenyong & Nwabuisi, 2020). According to Odufowokan (2018), the budgetary allocations for polytechnics are often insufficient to cover basic operational costs, let alone investments in modern equipment and infrastructure.

2. Poor Perception and Discrimination:

Polytechnic education in Nigeria is often perceived as inferior to university education. This negative perception affects enrollment rates and the employment prospects of graduates. Employers often favor university graduates over their polytechnic counterparts (Odiagbe, 2013). The discrimination is further exacerbated by disparities in the remuneration and career progression of polytechnic graduates compared to university graduates (Odu, 2011). As Obasi (2019) notes, this stigmatization leads to a vicious cycle where polytechnics attract fewer students and subsequently receive less funding and support.

3. Curriculum and Skill Relevance:

The curricula of many Nigerian polytechnics are outdated and fail to meet industry requirements. Alade (2019) argues that the disconnect between polytechnic curricula and the needs of the labor market contributes to graduate unemployment and underemployment. Modern industries require graduates equipped with relevant technical skills, yet many polytechnic programs lack practical components (Ekpenyong & Nwabuisi, 2020). As highlighted by Adeoti (2020), there is a critical need to revamp the curriculum to include emerging technologies and practices. Ojimba (2012) identified six problems associated with the current curricula in Nigeria. They are:

- i. The curricula are based on foreign model which has evolved under ideal conditions (staff, equipment, infrastructure, training opportunities, etc) that are not easily duplicated in developing countries.
- ii. There is a basic lack of textbooks in the area and most of the available textbooks have foreign background and often illustrated with examples from outside the local environment.
- iii. There is usually a shortage of highly competent indigenous teaching and support staff with sufficient practical experience of technology
- iv. The curricula are adjudged to be too academic and overloaded with intellectual content in pure science and mathematics at the expense of basic engineering and technology.
- v. Inadequate provision of humanities, social sciences, business management concepts and entrepreneurial skills development. Because of the inadequate preparations of the students for the industry, some employers retain the graduates to make them productive in their organizations.
- vi. The teaching approach follows the conventional method of transferring knowledge across through the lecturer reading out to the students, who would then take down notes. The educational system continues to place considerable value on this method of teaching.

4. Inadequate Staffing and Brain Drain:

Another significant challenge is the shortage of qualified lecturers and instructors in polytechnics. The low remuneration and poor working conditions drive many skilled educators to seek opportunities abroad or in other sectors (Akinyemi, 2013). This brain drain further depletes the quality of polytechnic education and compromises the institutions' ability to deliver quality training.

5. Poor Infrastructure and Learning Environment:

The infrastructure of many polytechnics is in a dilapidated state, affecting the quality of education. Laboratories, workshops, and classrooms are often poorly equipped or lack essential resources, making it difficult for students to gain hands-on experience (Odiagbe, 2013). According to Aluko and Adesina (2021), this inadequacy is a direct consequence of poor funding and neglect.

6. Government Policies and Management Issues:

Ineffective government policies and mismanagement are also contributing factors. Policy inconsistency and lack of proper regulation hinder the growth of polytechnic education (Alade, 2019). Additionally, the management of many polytechnics is plagued by corruption, resulting in misallocation of resources (Ekpenyong & Nwabuisi, 2020).

7. Brain Drain

This refers to the movement of technical teachers and lecturers of technical education which are very much needed for the socio-economic and technological development of Nigeria from one University to the other or to other professions where they feel will offer them better conditions of service. According to Eze (2018) about 45% of all Nigerian professionals including technical educators have left the Nigerian shores over the years. Between 1997 and 2007 alone, Nigeria lost over 10,000 middle level and high-level managers to the western economies. About 500 lecturers from Nigerian tertiary institutions have continued to migrate each year, particularly to Europe, America and other African countries.

Issue in Re-ventilating Nigeria's Polytechnic Education

According to Professor Pat Utomi in his keynote address on "The Challenge of education Reform" in 2007, the primary objective of the transformation strategy is to build upon the initial efforts of the Obasanjo administration around the introduction of the universal basic Education (UBE) policy. In other to consolidate the existing policy as part of introduction a number of new innovations, the following key factors should be adhered to:

- (1) Increase investment in UBE and education to 10% of the consolidation Federal revenue, enabling an expansion in teacher compensation, resources, school feeding and student bursary across the country.
- (2) Create new agencies to oversee an aggressive school infrastructure construction and classroom equipment program.
- (3) Partner with universities and other tertiary institutions to commercialize technology

and drive venture-backed innovation,

- (4) Expand adult literacy programs in partnership with local communities, business communities and Open University,
- (5) Expand citizen access to a revitalized, competitive and option rich educational sector.
- (6) Help Nigerian student earn the global rankings and credibility the country was known for in the past.
- (7) Cultivate a culture of excellence and success in education which could change minds within government, among teachers and parents about how to achieve success in educating polytechnic education in Nigeria.

Strategies to Reform the Polytechnic Education System

To achieve the purpose reforming the Nigerian polytechnic education System, several strategies can be implemented:

Curriculum Overhaul: Updating the curriculum to align with current industry demands is essential. Incorporating practical, hands-on training ensures that graduates are job-ready and equipped with relevant skills. Stakeholders have emphasized the need for a robust curriculum reform that integrates practical exposure, thereby enhancing the employability of polytechnic graduates (Azeez, 2023).

Infrastructure Development: According to Anyanwu (2025), adequate infrastructure is fundamental to effective learning. Modernizing facilities and providing state-of-the-art equipment can enhance the learning experience and better prepare students for real-world challenges. The Federal Ministry of Education has highlighted the importance of addressing inadequate infrastructure in polytechnics to improve educational outcomes.

Enhanced Funding: Sufficient funding is necessary to support infrastructure development, staff training, and program delivery. Budgetary constraints have been identified as a persistent issue limiting the ability of institutions to provide quality education (Ajakaiye, 2025). Addressing these financial challenges is crucial for the sustainability and effectiveness of polytechnic education.

Industry Collaboration: Establishing strong partnerships between polytechnics and industries can bridge the gap between theoretical knowledge and practical application. Such collaborations can lead to curriculum updates that reflect current industry trends and provide students with practical training opportunities. This approach ensures that graduates possess skills that are directly applicable in the workforce.

Policy Reforms: Implementing comprehensive policy reforms can address systemic challenges within the polytechnic education system. This includes reviewing the structure and management of institutions, developing sustainable funding mechanisms, and ensuring curriculum relevance to national development. Also addressing the disparity between Higher National Diploma (HND) and bachelor's degree holders in terms of employment opportunities and career progression. Recent discussions have called for structural reforms within the National Board for Technical Education

(NBTE) to empower polytechnics to award bachelor and postgraduate degrees in technology-related programs (Jamiu, 2024). Policymakers have called for thorough reforms to correct negative perceptions and enhance the effectiveness of polytechnic education.

Emphasis on Research and Innovation: Encouraging a culture of research and innovation within polytechnics can lead to technological advancements and problem-solving initiatives that benefit society. Establishing technology incubation centers in polytechnics has been recommended to foster innovation and applied research.

Public Perception Enhancement: Combating the stigma that polytechnic education is inferior to university education is vital. Promoting the value of technical and vocational education can encourage more students to consider polytechnics as a viable option for higher education. Efforts to change public perception are essential for attracting talented individuals to polytechnic programs.

Continuous Professional Development for Educators: Investing in the continuous professional development of educators ensures that they remain updated with the latest teaching methodologies and industry practices. This investment enhances the quality of instruction and keeps educators abreast of evolving industry standards.

Regular Policy Reviews: Periodic reviews of policies governing polytechnics are necessary to address emerging challenges and align with global best practices. This proactive approach ensures that the education system remains relevant and responsive to changing economic and technological landscapes.

Re-thinking Strategies for a Sustainable Future for Nigerian Polytechnics

The notion of re-thinking^l refers to reconsideration, re-evaluation, review or reexamining a decision or conclusion that has previously been made in order to change or improve it (Cambridge Dictionary, 2020). In the context of this study, it points in the direction of insufficiency or inadequacy of existing approaches adopted in the management of higher educational institutions thereby necessitating a re-think of a more robust and sustainable approach. Thus, higher institutions need to do everything within their power to keep positive images with their various constituents, and one way to do this is to make use of the opportunities innovations, entrepreneurship and strategic alliances present. With the Nigerian institutions of higher learning undergoing various reforms to expand and access quality and efficiency in the educational system, understanding the concept of sustainability/strategic agility and integrating them for improved performance should be a top priority.

Critical Steps to Adopt in Integrating Sustainability in Polytechnics Education

- Adequate funding of Polytechnic education to promote practical teaching and procurement of state-of-the-art equipment/tools
- Appropriate and conducive environment for both staff and students that will engender proper monitoring and evaluation of all projects.
- Operating model should be based on transparency and meritocracy.

- Engagement of tested and experienced members of staff in leadership positions and not by favouritism, nepotism or tribalism.
- Capacity building (training and re-training of staff) to enhance shared knowledge, interactions, expertise and best global practices.
- Procurement and installation of technical labs/workshops/studios with contemporary equipment/tools.
- Acquisition of ICT and other critical tools to makes the Polytechnics products (students) competes with their contemporaries globally.
- Value re-orientation with an open communication system that spreads developmental ideas among all staff.
- Quality assurance of teachers and teaching of all courses with a viable and well-motivated Quality Assurance team in place to ensure compliance.
- Adequate compensation/recognition of self-motivated and committed Polytechnic staff to boost commitment and contentment within the institution.
- Management of Polytechnics should take concrete steps also intensify the war against indiscipline and corruption from the highest to the lowest levels.
- Advocating a paradigm shift from “sharing the cake” to “baking the cake”, and this re-orientation should cut across government official in charge of higher Institutions, the Management, staff and students.
- Government must avoid neglect, stigmatization, under-funding that inhibits the educational environment from effective teaching and learning (Philomena, 2021).

Policy Implications

Increased Government Commitment: Policymakers must prioritize polytechnic education by ensuring consistent and adequate funding. The government should allocate at least 10% of consolidated revenue to education, with a significant portion directed toward polytechnic institutions.

Legislative Reforms: Policies addressing the disparity between Higher National Diploma (HND) and university degrees should be implemented to ensure equal employment opportunities and career progression for polytechnic graduates.

Industry Integration: Policies promoting collaboration between polytechnics and industries should be developed to align curricula with industry needs. Establishing mandatory internship programs and industry-sponsored research projects will enhance the employability of graduates.

Infrastructure Development: The government and private sector should invest in state-of-the-art laboratories, workshops, and ICT facilities to enhance hands-on learning experiences.

Performance-Based Management: Polytechnic institutions should adopt performance management

frameworks to improve governance, transparency, and accountability, ensuring measurable improvements in educational outcomes.

Public Awareness Campaigns: Government agencies and educational stakeholders should actively engage in sensitization programs to reshape public perceptions about polytechnic education, emphasizing its relevance in driving technological and economic development.

Recommendations

1. The National Board for Technical Education (NBTE) should regularly update polytechnic curricula to incorporate emerging technologies, entrepreneurship, and soft skills essential for the modern workforce.
2. The government should introduce special intervention funds for polytechnic education, similar to those available for university education, to improve infrastructure and facilitate research.
3. A structured capacity-building program should be implemented to train and retain qualified lecturers and instructors, reducing brain drain and ensuring the availability of competent educators.
4. Polytechnic institutions should establish formal partnerships with industries to facilitate knowledge exchange, internships, and collaborative research.
5. Regular policy reviews should be conducted to address emerging challenges in polytechnic education, ensuring that policies remain relevant and effective in achieving educational and developmental goals.
6. Polytechnics should be encouraged to set up research and innovation centers to drive technological advancements and entrepreneurial ventures among students and faculty members.
7. Employers and government agencies should recognize and reward polytechnic graduates equitably, ensuring that employment policies do not favor university graduates over their polytechnic counterparts.
8. Polytechnic management should embrace transparency in financial management, resource allocation, and institutional administration to prevent corruption and mismanagement.
9. The government and polytechnic management should create a conducive learning environment by addressing infrastructural deficits, ensuring security, and promoting an academic culture of excellence that will enhance the overall quality of polytechnic education.
10. Continuous dialogue between the government, academic institutions, industries, and civil society will ensure a collaborative approach to sustaining and improving the polytechnic education system.

Conclusion

The revitalization of the Nigerian polytechnic education system is crucial for achieving sustainable national development. As highlighted in this study, polytechnic education plays a significant role in bridging the gap between theoretical knowledge and practical application, producing skilled manpower essential for industrialization and economic progress. However, systemic challenges such as inadequate funding, outdated curricula, poor infrastructure, discrimination against polytechnic graduates, and ineffective management policies have severely hindered the sector's ability to fulfill its objectives. To effectively re-ventilate the polytechnic system, it is imperative to adopt a holistic approach that integrates curriculum reforms, enhanced industry collaboration, increased funding, improved infrastructure, and a shift in societal perceptions regarding technical education. Emphasizing research, innovation, and entrepreneurship will further strengthen the system, ensuring that polytechnic graduates contribute meaningfully to national growth. By adopting performance management strategies such as the Goal-Setting Theory, polytechnic institutions can align their internal capabilities with strategic objectives, fostering innovation, productivity, and sustainability.

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