

## EVALUATING NIGERIA'S HIGHER EDUCATION MANAGEMENT POLICIES FOR SUPPORTING GEN Z LEARNERS IN A TECHNOLOGY- DRIVEN ACADEMIC ENVIRONMENT

**Peace Chidiebere Ike (Ph.D.) and Prof. Hilda Chineze Agusiobo Ph.D.**

Department of Educational Foundations, Faculty of Education, Godfrey Okoye University, Enugu, Enugu State.

**Abstract:** The increasing integration of digital technologies into higher education has necessitated a critical evaluation of institutional policies in relation to the learning needs of Generation Z students. This study examines Nigeria's higher education management policies with a focus on institutional reforms, learning infrastructure, and digital inclusion within a technology-driven academic environment. It highlights the extent to which existing policies align with the cognitive, social, and technological expectations of digitally oriented learners. Drawing on the Technological Pedagogical Content Knowledge (TPACK) framework, the study explains how effective educational outcomes depend on the interaction between technology, pedagogy, and content. Empirical evidence reveals persistent gaps between policy formulation and implementation, particularly in areas such as infrastructure development, access to digital resources, and institutional readiness. The study further identifies challenges related to digital inequality, inadequate capacity development, and weak governance structures. Despite these limitations, findings indicate significant opportunities for enhancing teaching, learning, and research through strategic policy reforms and technological investments. The study concludes that for Nigerian higher education to remain relevant and competitive, policies must be adaptive, inclusive, and aligned with the realities of a digital generation. Emphasis is placed on the need for coordinated efforts among stakeholders to ensure sustainable and effective technology integration.

**Keywords:** Higher Education, Digital Inclusion, Gen Z Learners, Educational Technology, Institutional Policy

### Introduction

The rapid advancement of digital technologies has significantly transformed global educational systems, particularly higher education institutions that are expected to respond to evolving learner needs. In Nigeria, the emergence of Generation Z learners—individuals born into a highly digitalized world—has introduced new expectations regarding teaching, learning, and institutional support systems. These learners are characterized by strong digital literacy, preference for interactive learning environments, and demand for flexible and technology-driven educational experiences. Consequently, higher

education management policies must evolve to accommodate these changing dynamics. Ukonu and Warlimont (2025) observe that traditional learning techniques often fail to align with the cognitive and technological expectations of modern learners. This misalignment creates a gap between institutional practices and student needs. Addressing this gap requires a critical evaluation of existing policies. Therefore, the integration of digital innovation into higher education management has become imperative.

The Nigerian higher education system is the system that has gone through a series of reforms to enhance

access, quality, and relevance of education in the globalized world. Nevertheless, it is questionable whether these reforms have been effective in encouraging learning that is technology-driven. Egwuisi et al. (2025) observe that the Nigerian education control and policy frameworks have not placed importance on technological infrastructure in the past but rather on curriculum development and funding. This has an implication on the capacity of institutions to facilitate new learning environments. With the ongoing transformations that digital technologies bring to the establishment of educational delivery, there is an even greater necessity to realign the policy. The institutions should not only implement new technologies, but also provide enabling environments for their use. This includes infrastructure investment, training, and inclusion of digital policies. In the absence of these, the potential of technology in education cannot be achieved to the maximum.

Digital inclusion is the key concept to consider the difficulties of Nigerian universities in supporting Gen Z students. Digital inclusion is consistent access to digital facilities, digital proficiency, and Internet education. Ayomide (2025) highlights the fact that despite the rising rates with regard to technology adoption in Nigerian universities, there is a notable disparity in access. These inequalities have an impact on the capacity of students to engage fully in online educational settings. Moreover, system inequalities exist due to unequal access to devices, internet connectivity, and training on digital literacy. This kind of inequality compromises the objectives of inclusive education. Thus, the analysis of the issues of higher education policy should feature the assessment of its responsiveness to the problem of digital

inclusion. Equitable access is vital in ensuring that the students are engaged and achieve academic success.

The second important aspect of education which is technology-driven is the presence of learning infrastructure in making teaching and learning processes effective. Learning infrastructure involves online platforms, internet access, virtual learning platforms, and technological systems that aid in academic processes. Samuel et al. (2025) maintain that there must be a positive institutional structure to introduce innovative technologies to Nigerian universities. This involves policies that facilitate the application of computer tools in education, research, and evaluation. Nevertheless, even in many institutions people use outdated systems that restrict the potential of technology-enhanced learning. Inadequate infrastructure impacts the students as well as the academic staff. Owing to this, strategic investments in modern learning technologies are required. This kind of investment will be essential in the orientation of higher education to international standards.

In the case of the transformation of higher education in Nigeria, there is also a change of the traditional teaching methods into the more interactive and learner-focused methods of teaching. Chukwuemeka et al. (2025) point out that technology-based education promotes active learning, teamwork, and critical thinking among learners. The methods are specifically applicable to Gen Z students who enjoy experiential and technology-mediated learning. Nevertheless, institutional policies and management practices largely determine the adoption of such approaches. In the absence of enabling policies, teachers might not be able to embrace digital tools well. This highlights the need to synchronize the management approach with the pedagogical

innovations. The institutions should therefore work towards policies that facilitate flexible and adaptive learning practices.

Along with the pedagogical changes, the implementation of the use of technologies in higher education possesses some quality assurance and academic standards implications. According to Hassan (2025), new technologies like artificial intelligence are transforming the process of quality assurance in institutions of higher learning. These technologies allow monitoring, evaluation, and assessment of academic performance to be much more efficient. Nevertheless, their successful implementation will be determined by institutional willingness to implement them. In Nigeria, the policy frameworks should touch on the problem of readiness for technology, data management, and ethical concerns. This is to make sure that technologies can have a positive influence on the educational results. Finally, policy, practice, and institutional capacity are aligned to determine the success of the technology-driven education.

Lastly, the necessity to appraise the higher education management policies in Nigeria can be explained by the increasing awareness of the fact that education is one of the main developmental drivers. Nkaanée and Mgbomo (2025) opine that education driven by technology is important in ensuring economic growth and social development. Higher education institutions can become employable and innovative by providing students with digital skills. But to accomplish this, it has to be in the form of complete policy changes to facilitate the adoption of technology. These reforms should touch on the infrastructure, digital inclusion, and institutional capacity. Thus, the present research paper synthesizes the results of the empirical research to determine the effectiveness of the higher education

management policies in Nigeria to ensure that Gen Z learners meet the demands of a technology-driven learning process.

### **Theoretical Framework: Technological Pedagogical Content Knowledge (TPACK)**

The research is rooted in the Technological Pedagogical Content Knowledge (TPACK) model which offers an elaborate model to comprehend the merging of technology in education. Mishra and Koehler came up with the theory as a continuation of the concept of pedagogical content knowledge by Shulman. It also focuses on how technology, pedagogy, and subject content interact to improve teaching and learning activities. As stated by Handayani et al. (2023), TPACK can be used as a basic framework to understand how educators successfully implement digital tools in teaching methods. The theory applies more especially in technology-based learning settings where several fields of knowledge intersect. It offers a systematic way of interpreting the digital transformation in learning. Hence, it is appropriate to analyze the Nigerian higher education policies.

The main assumption of the TPACK theory involves the idea that good teaching involves a harmonious combination of three main areas of knowledge, including: content knowledge, pedagogical knowledge, and technological knowledge. Content knowledge is the subject mastery, while pedagogical knowledge is the teaching strategies and teaching methods. In its turn, technological knowledge is associated with the possibility of using digital tools efficiently in the educational process. According to Li et al. (2022), the domains interact to create more elaborate knowledge frameworks that lead to increased instructional effectiveness. Such interaction is essential in contemporary learning where

technology is the key element. The application of technology may not come with any significant learning results without this integration. Therefore, TPACK emphasizes the role of the synergy of the knowledge areas.

Advocates of the TPACK framework state that technology cannot be considered as a separate element of education but as a constituent of the pedagogical practice. As indicated by Ong and Annamalai (2024), it is important that a teacher realizes the impact of technological tools on the delivery of content and engagement of the students. This approach would change the educator position of a teacher who simply passes on knowledge to a facilitator of learning. It also highlights the importance of engaging in professional growth in digital competencies continuously. This also has a policy implication as far as higher education in Nigeria is concerned. The institutions have to make sure that the educators have the skills required to integrate technology in an effective way. This is in line with the objectives of serving the Gen Z learners. The other major assumption of the TPACK theory is that integration of technology is specific and ought to be modified according to the peculiarities of every educational setting. The study by Schmid et al. (2024) indicates that the institutional resources, student demographics, and curriculum goals are among the factors that affect the use of technology in teaching. Lack of infrastructure and digital inequality are the issues that need to be addressed in Nigeria in the process of introducing technology-driven policies. This renders TPACK very useful in assessing the management strategies in higher education. It offers a guideline on how to gauge the responsiveness of the policy to contextual realities. Thus, it facilitates a

more sophisticated interpretation of the educational reform.

Besides, the TPACK framework emphasizes that it is necessary to create learning settings, that encourage interaction, collaboration, and critical thinking. Yue et al. (2024) believe in the effective adoption of technology, which makes students engage better and have better learning results of learning. It is particularly relevant to Gen Z learners who are used to the digital interaction and learning processes that are customized. Using the TPACK model, this paper discusses the role of higher education policies in Nigeria in integrating technology in teaching and learning. It also gauges the degree of compatibility of these policies with the requirements of contemporary learners. Finally, the framework gives a theoretical ground for how the relationship between policy, technology, and educational outcomes is understood.

### **Empirical Review**

Existing empirical research on technology-based education in Nigeria indicates that the management policy on higher education is effective to a large extent. In their article, From Policies to Strategic Actions: Digitally Transforming Higher Education in Nigeria through a Stakeholder-Driven Co-Governance Model, Ukeje et al. (2025) investigated the adoption of the policies of digital transformation in Nigerian universities. The study was aimed at evaluating the transfer of policy frameworks into practice. The qualitative approach allowed the researcher to examine the views of the stakeholders and the institutional practices. The results indicated that despite the existence of policies, there is usually a disconnect between policy formulation and implementation. The research also emphasized the significance of collaboration among the stakeholders in order to attain effective digital transformation. This

is in line with the participatory governance requirements in education. Nevertheless, it is unlike the other research works in that it focuses on governance structures and does not focus on student experiences.

On the same note, Ayomide (2025) also did a study titled Assessment of Technology-Based practices in learning and research among undergraduates in South West Nigeria Universities. This was aimed at assessing the level of use of technology among the students. It used the survey research design and used the data of undergraduate students. The results showed that students actively use digital tools in studying. Nevertheless, inaccessible and slow internet and insufficient institutional support were also found to be issues in the study. These results are comparable to Ukeje et al. (2025) as they feature gaps in implementation. Nevertheless, the research conducted by Ayomide is rather student-level experiences as opposed to institutional policies. This offers a contrasting point of view on integrating technology.

In the article Technology Readiness and Implications in Higher Education in Universities in North-central Nigeria, Oladele (2024) explored the readiness of higher education students to technology-driven education. The researchers used a mixed-method research method in order to examine quantitative and qualitative data. Results indicated that the majority of students (especially the Gen Z ones) exhibit high digital affinity rates. Nevertheless, the readiness of institutions was identified as insufficient in terms of facilitating such potential. This observation is in line with that of Ayomide (2025), who also mentioned infrastructural constraints. The distinction is in the aspect of focusing on preparedness, as opposed to usage. The study by Oladele highlights the necessity

of institutional reforms to align with the capabilities of the students.

In the study Information Needs and Seeking Behaviors of Gen Z Undergraduate Students in Nigerian University Libraries, Oyighan et al. (2025) investigated the way students acquire and consume information resources. This was with the aim of determining the importance of digital libraries in facilitating academic works. Through the descriptive research design, the study discovered that Gen Z learners use digital resources more than traditional library systems. It also brought out the necessity of the institutions to incorporate technology-driven library services. The observation is consistent with the general theme of digital transformation in education. The study is, however, different in that it examined library services and not the policies of the institution in general. It gives an understanding of an important aspect of learning infrastructure.

In addition, in their article Transforming from Traditional to Smart Education in Nigeria, Chukwuemeka et al. (2025) discussed the challenges and opportunities linked to digital learning. The analysis was based on a conceptual and analytical method to assess the current educational practices. The results showed that conventional pedagogical approaches are less effective in meeting the needs of contemporary learners. It was also found that there are a number of opportunities to implement smart technologies in the field of education. These data are comparable to those of other researchers, such as Ukonu and Warlimont (2025), who state that the methods of teaching should be aligned with the digital realities. Nevertheless, Chukwuemeka et al. do not pay much attention to particular policy assessment but concentrate on systematic change.

On the whole, the reviewed empirical studies show some similarities and differences in their results. The main issue that is prevalent in the studies is that there is a disconnect between the intentions to implement the policies and their practical application. The majority of studies emphasize the issues associated with infrastructure, digital inclusion, and institutional preparedness. They however vary in terms of areas of focus with some focusing on governance, others on student experiences, and others on infrastructural components. This summary highlights the difficulty in assessing higher education management policies. It also identifies the necessity of a comprehensive approach that takes into account various aspects of technology-based education.

### **Institutional Reforms for Technology-Driven Higher Education**

The key aspect of technology integration in systems of higher education is institutional reforms. Nigeria is a country where most universities are run through strict administrative systems that curb innovation and responsiveness to the emerging digital trends. To Gen Z learners who are accustomed to flexibility and to interacting digitally, this rigidity establishes a mismatch between the institutional practices and the expectations of the learner. The reform efforts should therefore be directed towards the reform of the governance systems to enable nimble decisions and technology adoption. This involves decentralization of power so that units and faculties can adopt contextual digital solutions. Also, institutions should put solid policies in place where the digital transformation is a key goal and not a side project. These reforms increase institutional ability to be flexible to the increasingly changing demands in education.

The other facet of institutional change is curriculum change to suit digital realities. Conventional curriculum usually focuses a lot on theoretical learning and little on the incorporation of computer and real-life practices. Nevertheless, Gen Z students need curricula, that embrace digital literacy and critical thinking, and problem-solving skills. The universities are thus required to reformulate programmes to encompass technology-based learning activities, virtual simulation as well as interdisciplinary strategies. This will make graduates have the competencies that are applicable to the contemporary workforce. In addition, institutional reforms must deal with administrative procedures through the digitalization of services to register, assess, and communicate. This becomes efficient and the general student experience is better. Finally, institutional reforms provide a facilitating environment for sustainable digital transformation.

### **Learning Infrastructure and Digital Capacity Development.**

The learning infrastructure is important in determining the success of technology-based education. The Nigerian case is no exception, and poor infrastructure is among the biggest obstacles to digital learning. Most of the institutions do not have stable internet access, contemporary learning management systems, and current technological applications. This constrains the capacity of students as well as educators to be completely involved in online learning settings. In a bid to overcome this problem, universities should invest in powerful digital infrastructure enabling online and blended learning. This encompasses rapid internet, cloud computing, and interactive digital tools. This type of investment is necessary to build inclusive and effective learning environments.

Along with physical infrastructure, there is also a digital capacity development. Learners and teachers should have the competencies to make use of the digital tools. With Gen Z learners, although digital familiarity may be perceived, advanced digital skills like information evaluation and academic use of technology are still lacking. It is therefore important that institutions offer training programmes that will increase the level of digital literacy and academic technology. On the same note, academic personnel need an ongoing professional growth in order to bring technology into the teaching methods. The availability of infrastructure will not ensure effective learning in the absence of proper training. Consequently, the infrastructural investments should be accompanied by capacity development. Collectively, they make the base of effective education that is technology-based.

### **Learning Infrastructure and Digital Capacity Development**

One of the basic factors when assessing higher education policies in a technology-driven environment is the issue of digital inclusion. Although technology can increase access to education, it can enlarge the existing inequalities when there is no proper handling. The issue of digital resource access inequality in Nigeria is also a problem, especially among students who come from disadvantaged backgrounds. Economic constraints, geographic location, and lack of access to internet services are some of the factors that bring about this inequality. Consequently, digital learning opportunities cannot be equal for all students. To manage this problem, it is necessary to take some policy actions that encourage the fair distribution of technology.

Universities need to implement an inclusive approach that will guarantee all students access to the required

digital tools and resources. This can involve the provision of subsidized devices, the expansion of internet access in campuses, and negotiation with telecommunication companies to help in the minimization of data expenses. The institutions should also develop learning platforms that are friendly and easy to use by various categories of students. Digital inclusion is also the provision of students with different degrees of digital literacy with specific training programmes. Higher institutions of learning will be able to develop effective and inclusive learning environments by ensuring equity. It is vital to the success of the bigger objectives of educational and social inclusion.

### **Digital Inclusion and Equity in Higher Education**

Digital inclusion is a fundamental consideration in evaluating higher education policies in a technology-driven environment. While technology has the potential to expand access to education, it can also deepen existing inequalities if not properly managed. In Nigeria, disparities in access to digital resources remain a significant challenge, particularly for students from disadvantaged backgrounds. Factors such as economic constraints, geographic location, and limited access to internet services contribute to this inequality. As a result, not all students are able to benefit equally from digital learning opportunities. Addressing this issue requires deliberate policy interventions that promote equitable access to technology.

Universities must adopt inclusive strategies that ensure all students have access to necessary digital tools and resources. This may include providing subsidized devices, expanding campus internet access, and partnering with telecommunications providers to reduce data costs. Additionally, institutions should design learning platforms that are

accessible and user-friendly for diverse student populations. Digital inclusion also involves supporting students with varying levels of digital literacy through targeted training programmes. By prioritizing equity, higher education institutions can create learning environments that are both inclusive and effective. This is essential for achieving the broader goals of educational development and social inclusion.

### **Policy Implementation and Governance Challenges**

The problem of policy formulation and implementation is one of the greatest in the higher education system in Nigeria. Most policies sound good on the need to integrate technology, but when it comes to how they are practically implemented, it fails. This is attributed to the poor funding, the institution's inability to operate, and the absence of accountability. This leads to the fact that even well-crafted policies on paper do not always bring about practical results. This provides frustration to stakeholders and constrains the effectiveness of reform efforts. To solve this issue, it is necessary to pay more attention to the strategies of implementation and monitoring.

Good governance is critical in closing the divide between policy and practice. Institutions should develop proper structures for checking and assessing policy implementation. These involve establishing targets that can be measured, resource allocation, and making decisions in a transparent manner. Also, it is important that the stakeholders are involved in making sure that the policies are sensitive to the real needs. Policymaking should be actively involved in students, teachers, and administrators. This encourages the sense of ownership and responsibility. The effectiveness of higher education management

policies is then improved by strengthening governance structures.

### **Implications for Educational Management and Policy Development**

This study has implications for education management in Nigeria. To begin with, it requires a paradigm shift from conventional management systems to more innovative and technology-oriented management models. Educational managers should be aware of the dynamic nature of learning and change their ways of doing things. This includes adopting digital technologies, encouraging collective work, and promoting the culture of innovation in institutions. This change is needed to address the needs of the Gen Z generation. It also helps in increasing institutional competitiveness within a globalized education environment.

Second, the policy formulation should be progressive and dynamic with regard to the new trends in education. Instead of responding to changes, the policymakers must anticipate future changes and formulate proactive measures. These encompass investing in research and development, encouraging innovation, and establishing collaboration with technology providers. Also, the policies should be adaptable to accommodate the fast technological changes. Strict policies can become outdated within a relatively short time. Thus, flexibility is one of the major factors in policy formulation. The institutions of higher education will be in a better position to prepare for the future by taking a strategic and prospective approach.

### **Conclusion**

The review of empirical evidence shows that although Nigeria has been successful in its efforts to incorporate technology in higher education, there is still a lot that needs to be addressed regarding how

policies can be adjusted to meet the needs of Gen Z learners. Theoretical contributions of the TPACK framework state the significance of combining the technology, pedagogy, and content in a balanced, well-rounded way. Nevertheless, there is empirical evidence of a lack of infrastructure, digital inclusion, and policy implementation. To overcome such challenges, a complex of reforms should be developed with the main focus on technological preparedness, cooperation between stakeholders, and equal access to online resources. Finally, the efficient management policies of higher education should be adaptive, contextual, and consistent with the reality of a technology-based academic setting.

### **Recommendations**

1. Universities should implement comprehensive institutional reforms that promote flexibility, innovation, and digital transformation.

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2. Government and stakeholders should invest heavily in modern learning infrastructure, including reliable internet and digital platforms.

3. Higher education institutions should develop continuous training programmes for both students and staff to enhance digital competencies.

4. Policies should prioritize digital inclusion by ensuring equitable access to technological resources for all students.

5. Strong monitoring and evaluation mechanisms should be established to ensure effective policy implementation.

6. Educational managers should adopt data-driven decision-making processes to improve institutional performance.

7. Collaboration between government, institutions, and private sector organizations should be strengthened to support sustainable digital transformation.

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