Digitalization of Tertiary Education Management in Nigeria: Problems and Way Forward

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Abstract

This paper discussed the digitalization of tertiary institution management in Nigeria: problems and way forward. The paper used secondary data. The secondary data were collected from both print and online publications through content analysis. The paper's findings revealed poor funding, poor implementation of policy on digitalization, shortage of infrastructure facilities, poor digital skills and knowledge, high cost of digital facilities, unstable internet service, corruption and energy crises as the problems militating against digitalization of tertiary institution management in Nigeria. Based on the findings, the paper hereby recommends that an increment in the funding of tertiary institutions, provision of modern digital infrastructure facilities, capacity building for non-academic staff, deployment of artificial intelligence to curtain corruption in the institutions, subsiding the cost of digital facilities, provision of quality internet servicer and ensure a constant supply of energy.

Keywords: Digitalization, Tertiary institution, management

Introduction:

Tertiary institutions are an organized fraction of the whole society curved out for teaching programmes, research and provision of community service. The tertiary institutions can also be seen as a subset of the general society that is made of a collection of different people, different cultures, different lifestyles and different values (Ogunode & Odo 2023). Tertiary education is defined by the National Policy on Education (2013) as the education given after Post Basic Education in institutions such as Universities and Inter-University Centres such as the Nigeria French Language Village, Nigeria Arabic Language Village, National Institute of Nigerian Languages, institutions such as Innovation Enterprise Institutions (IEIs), and Colleges of Education, Monotechnics, Polytechnics, and other specialized institutions such as Colleges of Agriculture, Schools of Health and Technology and the National Teachers' Institutes (NTI). Ogunode, Edinoh and Okolie (2023) conceptualized tertiary education as a planned and organized educational system designed for the total development of man/woman and for the total transformation of society through the utilization of teaching, research and provision of community service.

According to Ogunode, et al (2023a) the goals or objectives of tertiary education include; aiding the production of manpower; ensuring national unity; ensuring technological development;

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fostering national unity and international peace; increasing production through research; providing post-secondary school education; prepare students with quality knowledge and reliable skills for independent living and the world of work. The goals of tertiary education according to the FGN National Policy on Education (2013), shall be to: contribute to national development through high-level manpower training; provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interests of all Nigerians; provide high-quality career counselling and lifelong learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work; reduce skill shortages through the production of skilled manpower relevant to the needs of the labour market; promote and encourage scholarship, entrepreneurship and community service; forge and cement national unity; and promote national and international understanding and interaction. The realization of tertiary education objectives and goals depends on the availability of adequate human and material resources. The materials resources include digital resources. Digital resources are one of the critical resources available in educational institutions for aiding the management and administration of education.

The National Policy on Education, with the Digital Protocol Network on National Digital Policy, launched by the World Economic Forum together with the 2030 Agenda for Sustainable Development of United Nations policies, and the National Policy on Information and Communication Technology (ICT) in Schools provide better opportunities for deployment of technology and digital facilities for the acquisition of valuable knowledge and skills that will match the labour market skills demand. The goal of digital policy is to ensure the full digitization of educational institutions in Nigeria. The digitization of higher education is an ongoing process that has the potential to transform the way we teach and learn. Digital technologies such as online learning platforms, educational apps, and multimedia resources have opened up new opportunities for students and educators to access and share knowledge (Ogunode & Ndayebom, 2023). It is important to examine the various challenges of digitalization of tertiary institution management in Nigeria.

Literature Review:

Digitalization is the translation of all information kinds, such as text, audio, pictures, video, and other data from multiple sources into digital language. From the above, digitization can be conceptualized as those facilities that aid the conversion of teaching and learning into platforms like online courses, online assessments, and web seminars/conferences or workshops through the use of electronic platforms. Digitalization is the process of transforming physical teaching and learning resources into packages or platforms or electronic forms where they can be stored and manipulated by a computer for the implementation of teaching and learning programs in school (Machekhina, 2017). Digitalization in education is conceptualized by Titus (2018) and Olatunde et al. (2021) is the process of transferring traditional teaching and learning materials such as online learning platforms, educational apps, multimedia resources online courses, online assessments, web seminars/conferences or workshops to electronic model for deployment in the school.

Jagboro et al. (2012) viewed digitization as all the steps involved in the process of making collections of historical and other materials available online. Digitization is the process of converting manual information or data to a digital format for a more meaningful interpretation. Bejinaru (2019) observed digitalisation is the conversion of text, pictures, video, and music into digital format utilizing technologies such as a laptop computer, the internet, mobile devices, a

scanner, a digital camera, a projector, and printer, among others, that may be played by a computer. Digitization can be conceptualized as those facilities that aid the conversion of teaching and learning into platforms like online courses, online assessments, and web seminars/conferences or workshops through the use of electronic platforms (Ogunode and Ndayebom 2023). Digitalization is the process of transforming physical teaching and learning resources into packages or platforms or electronic forms where they can be stored and manipulated by a computer for the implementation of teaching and learning programs in school (Ogunode et al., 2023b).

Digitization in higher education will consist of support according to Panji (2023):

i. A comprehensive guide to numbers, math and statistics classes. Facilitating research and data analysis for digitization teachers and students.

ii. Numbers help the imagination. One can learn to identify and organize information through transformation, and numbers.

iii. Digitization helps students learn to work with qualitative data. In this form of education, students will have quality information for relevant work.

iv. It can be used in various fields such as accounting, business, journalism and other fields.

v. Digitization is part of the correction, which can also be identified in life. Numbers can be used to collect and analyze the information we need today.

vi. For breadth of knowledge in numbers, students can also go to developing fields. According to the information of the numbers, the students study the information and analyze it.

vii. Digitization allows students to learn the statistical techniques needed to quantify data. In this view, students can become experts in this field.

viii. Numbers, every part of our life, learning to digitize will help us even in our ordinary.

Methodology:

This paper is a position paper. The paper employed the use of secondary data. The secondary data were collected from online publications and print materials. Content analysis was used to select the final literature used for the paper.

Research Result and Discussion:

There are many problems militating against digitalization of tertiary education Management in Nigeria. Some of these problems include the following:

i. **Poor funding:** Poor funding is a major problem militating against the digitalization of tertiary institution management in Nigeria. Digitalization programme is an expensive programme that requires a lot of capital and investment. For the past three decades, funding allocation to tertiary institutions has been poor and has affected the implementation of programmes like this. Udida et al., (2009) remarked that the major issue in educational development is shortage of funds. One of the most serious problems threatening the survival of the educational system is that of dwindling level of public funding in the face of rising demands and hence rising cost of higher education. This shortage of funds affects job performance and the

growth of the institution. Higher educational institutions cannot perform optimally without funding. This situation calls for increased funding initiatives from both the government and educational stakeholders to sustain the tempo and growth of the education industry. The inability of the Nigerian government to objectively accept and implement the 15%-20% funding formula for education recommended by UNESCO impact negatively on the performance and sustainability of higher education. Thus, it has become obvious that Nigeria's neglect of the funding formula is detrimental to higher educational institution performance and development aspiration as quality performance is the veritable instrument for the sustenance of the education system. This neglect has further precipitated crises in the entire higher educational system as effective teaching, research and service are no longer taking place seriously. Poor funding of tertiary institutions and education in general has affected the implementation and digital programme**s** in schools across the country (Dada et al., 2022; Abdullah et al., 2017).

ii. **Poor implementation of policy on digitalization:** Poor implementation of policy on digitalization in educational institutions is another factor that is affecting the digitalization of tertiary institutions management in Nigeria. Ogunode et al (2023b) noted that poor policy implementation has been a challenge to the digitalization of higher education in Nigeria. To realize the international goals of digital education and national goals of digitalization of education in Nigeria, the federal government has developed different ICT policies and digital policies to enable the development of digital education in Nigeria. For instance, The Federal Government of Nigeria through the Nigeria Digital Economy Policy and Strategy (NDEPS) document has set a corresponding target of achieving 95 per cent digital literacy by 2030 (NITDA, 2021). The policy is anchored around equipping Nigerians with relevant digital literacy skills to keep up with the best global practices will put the current workers, youths and other professionals in ready mode for opportunities that may open up within and beyond the shores of Nigeria. This will diversify the economy, significantly reduce unemployment and enhance labour productivity and mobility. In turn, this would improve investment and transform Nigeria into a country well-known for technology, problem-solving and critical thinking. The Nigerian digital policies stated that the National broadband brand is targeting about 95 per cent digital levels to be achieved across states and local governments by 2030." And with a target to achieve 60 per cent digital literacy for youths and adults by 2025. Poor implementation of policies in Nigeria has affected the development of policies like the digitalization programme in tertiary institutions (Attah 2021; Anene et al., 2014).

iii. **Shortage of infrastructure facilities:** Shortage of infrastructure facilities is one of the factors affecting the deployment of digitalization of the tertiary institutions in Nigeria. Digital facilities to support the development of digitalization of the tertiary institutions in Nigeria are not available adequately and this is affecting the development of digitalization of the tertiary institutions in Nigeria. Ogunode, et al (2023a) opined that digital resources are very important in the implementation of digital programmes in educational institutions. They are the resources designed and packaged for administration and management and to make teaching and learning fast, interesting and flexible. Digital resources are such that are used by the

academic staff and non-academic staff to carry out academic service and implement teaching, research and learning programmes. The use of digital resources is central to management, teaching and learning simply because teaching and administrative functions need these facilities to aid effectiveness and efficiency in the system. Perhaps one of the biggest challenges for the deployment of digital tools for management in various institutions is a shortage of digital facilities. To promote digital transformation, equal emphasis needs to be allocated to digital skills development as it is to infrastructural development.

iv. **Poor digital skills and knowledge:** Poor digital knowledge and skills among stakeholders in tertiary institutions are a major problem affecting the digitalization of tertiary institutions in Nigeria. Ogunode (2020) argued that one of the most difficult aspects of digital deployment for management is the lack of digital skills and knowledge among the staff and students. Many students and staff struggle to deploy digital tools through digital platforms because of a lack of skills and knowledge to operate the gadgets. When digital skills and knowledge aren't there, it is difficult to deploy digital facilities to carry out academic services, for teaching and learning activities such as downloading notes and communicating with students and lecturers. Poor digital skills and knowledge are a national problem in Nigeria. A study by World Bank Development indicated that more than 50 per cent of Nigeria's over 200 million population do not have digital skills and therefore cannot use data services, 2021 (World Bank Development Report, 2021). The report further revealed that for Nigeria, despite having national data infrastructure compared to peers, there is still a huge gap in data usage, as critical demand side barriers persist. Chief economist at the World Bank described the gap as a huge policy problem for Nigeria and the West African region. The report indicated that across Nigeria, the largest segment of the population is in the usage gap because they report a lack of digital literacy. More than half of the population is reporting that they do not have the skills to use data services, so this is a huge policy challenge, one of the largest for Nigeria and the region (Businessday, 2020).

v. **High cost of digital facilities:** The high cost of digital facilities in Nigeria has also affected the development of digitalization of tertiary education Management in Nigeria. Digital facilities are very expensive in Nigeria and this affects the usage and deployment in educational institutions. Ogunode et al. (2023a) opined that the high cost of these facilities has limited many teachers and students from buying and using digital resources for teaching and learning. Also due to poor funding of many educational institutions, heads of schools cannot procure adequate digital resources for their schools. It has been observed that many teachers and students cannot afford to buy various digital facilities because of the high price.

vi. **Unstable Internet service:** Poor Internet penetration in Nigeria also constitutes challenges to the development of digitalization of tertiary education Management in Nigeria. Recently, Femi (2022) reported that only 12.1 per cent of the Nigerian population currently enjoys quality Internet services (Meaningful Connectivity) in the country. This is according to detailed research by the Alliance for Affordable Internet (A4AI). The findings explained that an 81 per cent meaningful connectivity gap exists in Nigeria, it claimed that only 6.6 per cent of the rural population and 16.4 per cent of the urban areas have good Internet service. This is coming as

broadband penetration in Nigeria hits 42.3 per cent, while users increased to 80.7 million. Abdullahi & Tijani (2019) observed that Educational institutions in Nigeria suffer poor internet accessibility while the majority of the country's schools have no access to the internet at all. Lack of skills is also an obvious factor that needs attention in the proper implementation of digital education in Nigeria.

vii. **Corruption:** The high rate of corruption in the administration of education in Nigeria is another big problem responsible for poor digitalization development in any educational institution. Funds released for such capital programs are sometimes diverted into private pockets and mismanaged. Some digital facilities installed in schools are sometimes removed by the various school heads and converted for family use at their houses (Ogunode et al., 2023a). Premium Times (2019) submitted in their report that Transparency International observed that 66 per cent of the money Nigerian governments budgeted for education was stolen by corrupt officials. The group presented the report at its sub-regional meeting in Abuja as part of the policy papers on land corruption and corruption in education systems in West Africa. According to the report, "corruption is commonplace in education systems across the Economic Community of West African States (ECOWAS). "This affects education access, quality, inclusion and learning outcomes with devastating consequences, not only for national economic growth but also for the life chances of children, their families and communities," the report said. The report highlighted Resource misallocation, corrupt procurement, exchange of sex for grades, examination malpractices, fake qualifications, teacher absenteeism, and corrupt recruitment practices as the various corruption risks and challenges facing education systems in all countries. Corruption has affected the development of programmes and implementation of policies in tertiary in Nigeria (Okeyim et al., 2013; Ololube, 2016; Osunyikanmi, 2018; Ogunode & Stephen, 2021; Ogunode et al., 2021).

viii. **Energy problem:** Another problem affecting the development of digitalization of tertiary education Management in Nigeria is the energy problem. Nigeria, as a country, is facing energy crises and this is affecting the deployment of digital facilities for administration and management in educational institutions, especially tertiary institutions. Thisday (2022) reported that West Africa has one of the lowest rates of electricity access in the world with only about 42% of the total population and 8% of rural residents, having access to electricity, yet only three countries are on track to provide access to electricity by 2030. "At this slow pace, 263 million people in the region will be left without electricity in ten years," the World Bank said in its „Putting Africa on the path to universal electricity access" report. Asogwa (2011) ascertained that it is very unrealizable for computerization and digitization to take effect in an environment of epileptic power supply. The issue of power has become a national calamity. Thus it has to be given priority by any library aspiring to attain global visibility. Hence, all the institutions in Nigeria only depend on a generator for their power supply, and most often there is no light due to a lack of diesel or generator breakdown which often hinders the digitization process. Also, Thisday (2022) cited the 2022 Energy Progress Report by Tracking SDG 7 and observed that Nigeria has the lowest access to electricity globally, with

about 92 million persons lacking access to power which is stifling the country's industrial growth and causing other problems.

The study indicated poor funding, poor implementation of policy on digitalization, shortage of infrastructure facilities, poor digital skills and knowledge, high cost of digital facilities, unstable internet service, corruption and energy crises as the problems militating against digitalization of tertiary institution management in Nigeria. This finding is in line with the discovery of Ogunode, & Ndayebom (2023) who found that poor funding of digital education, inadequate digital facilities, unstable power, poor internet coverage, high cost of digital facilities, high cost of maintenance, shortage of digital personnel, poor lecturers" digital skills and knowledge, poor students" digital skills and knowledge, the resistance of change and lack of self-control are the factors hampering digitalization of education in higher education in Nigeria.

Conclusions:

This paper examined the digitalization of tertiary institution management in Nigeria: problems and ways forward. The papers' findings revealed poor funding, poor implementation of policy on digitalization, shortage of infrastructure facilities, poor digital skills and knowledge, high cost of digital facilities, unstable internet service, corruption and energy crises as the problems militating against digitalization of tertiary institution management in Nigeria.

Recommendations:

Based on the findings, the paper hereby recommends that an increment in the funding of tertiary institutions, provision of modern digital infrastructure facilities, capacity building for non-academic staff, deployment of artificial intelligence to curtain corruption in the institutions, subsiding the cost of digital facilities, provision of quality internet servicer and ensure a constant supply of energy.

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