Information Technology, Distance Learning and Higher Education in Nigeria: A New Order

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Abstract

Learning in the past had substantially been anchored to classroom setting arrangement where both lecturers and students had physical interactions. Inadequacy in the available space for those yearning for higher education brought about the establishment of distance learning education. Distance learning education which provides access to education to students not accommodated by conventional universities was sited in places outside the catchment areas of the institution that owned them. Although, online teaching was visible in some of the centres, their effectiveness had been undermined with series of problems militating against effective teaching. However, a new twist emerged when information technology was deployed in delivering lectures and notes to students during the recent Covid-19 pandemic as a result of the closure of many institutions for several months. During the shutdown, examinations and convocations were held online by some institutions of higher learning which signals a new order in education delivery. Therefore, this paper examined the importance of information technology in the education delivery in Nigeria and realized that efforts in curtailing Covid-19 pandemic have a great impact on the mode of teaching and made information technology much more relevant in imparting knowledge to students. This is a new order in the world and Nigeria, a developing country, should gear towards leveraging on it. The study recommends that more resources should be devoted to information technology, the existing curriculum should undergo a review to reflect changes in learning mode and electricity power generation and supply should be improved upon.

Keywords: Distance Learning Education, Covid-19 Pandemic, Conventional Universities

Background History of Distance Learning and Higher Education in Nigeria

The establishment of formal educational institutions in Nigeria was pioneered by the white missionaries with the intention of taking the gospel to the grassroots by the locals who really understand the languages and culture of those to be evangelized. The cost of providing education was first free as beneficiaries were not charged for services rendered as the home missions that sent the missionaries to the country underwrote the cost of running these schools. The colonial government gave necessary support to these missionaries in terms of legal regulatory framework that enhanced the quality of products being produced. The need for clerks, and agricultural officers increased the yearnings of colonial government to provide education to the local people to participate in the new economy. The missionaries fulfilled the provision of education in order to

have translators, clerks, primary school teachers in abundance. Education is the bedrock of every society which contributes to the social, human and national development. The success of a country is proportional to the population of her educated citizens. Education liberates the mind, broadens horizons and promotes social inclusion. An educated person is better informed, more exposed and knowledgeable to contribute to nation building in various capacities. Industrialized nations of the world have benefited immensely from their investment in human capital which later serves as catalyst for economic development (Unwioduokit, 2011). Therefore, nations of the world are encouraged to provide qualitative education at affordable fees using different platforms.

The demand for higher education in Nigeria became competitive in view of limited available spaces in our tertiary institutions with teeming population of Nigerian youths who are in constant demand for higher education. The demand has always outweighed supply. Despite several efforts by the government to address the problem, the senior secondary schools in their thousands across the country continued to churn out 'secondary school leavers' on yearly basis with no adequate infrastructure to accommodate them into the respective universities of their choice. Students in this category sought respite in distance education to bridge the gap created by inability of existing institutions to accommodate and absorb them. This scenario became more worrisome by the desire of people for formal education certification. In this part of the world, 'certificates are worshipped' (accorded much respect than it deserves over and above individual ingenuity) and much importance is attached to it especially for people who intended to use it to secure the so called 'white-collar' jobs or those seeking promotions in their various organizations. Merits and individual capability became secondary factors of consideration by people in government or those in power to offer jobs to school leavers or get them promoted. Therefore, it is no longer new that the platform designed to support the working-class crop of students are now dominated by young boys and girls as newly admitted and prospective applicants in our various institutions.

The history of open distance education system dates back to 1887, a time where General Certificate Examination (GCE) was conducted via correspondence study (Ayo, Jonathan & Ambrose, 2014). Under the practice, students were permitted to work and study simultaneously to enhance their skills at work and contribute to the national development. Ayo *et al*, (2014) assert that the practice of Open Distance Learning (ODL) became popular in Nigeria in 1974 with the establishment of Correspondence and Open Studies Unit now Distance Learning Institute at University of Lagos. It was the first of its kind in the higher education system in Nigeria. Open Distance Education is a system which involves the use of Information and Communication Technology (ICT) tools to impart knowledge, skill and facilitate productive learning among students who are at a distance in terms of space and time from their lecturers (Ayo *et al,* 2014). Distance learning is a teaching/learning process which allows independent involvement of students in education with no physical contact with the lecturer but continuously interact with the lecturer through online platform (Faulkner, 2014). Open distance education took different dimensions such as

correspondence study, part time education, sandwich and continuing education program in the form of adult education.

Bakare (2012) described distance education as all-inclusive education where both the teachers and students are miles apart in time and space but interact regularly with the help of information and communication technology gadgets. According to Bakare (2012), distance learning education was designed as a platform of access to further education for the working-class students whose performance, promotion and productivity at work were attached to the level of acquired knowledge. Studies have shown that staff performance at work is a factor of acquired skills, knowledge and training. Although, the intention was conceptualized as adult education, unfortunately, the practice of open distance education has assumed the status of regular education in our society today. Distance education was designed as work-study opportunity for students who could not afford fees charged by conventional universities and most often than not were hindered by other pressing social needs such as work, family responsibility, religious belief and early marriage.

In the words of Ajadi, Salawu, and Adeoye, (2008), poverty and lack of fund precluded some students from conventional higher institutions of learning. This category of people are assumed to be matured and of relative age who could take informed decisions that can impact the society in a positive way. These attributes coupled with limited carrying capacity of existing universities to admit the teeming applicants into the conventional universities created a gap which was later filled through provision of education by other alternatives and this accounted for the rush for tertiary education in distance learning centres across the country and one of the reasons for students' influx into the National Open University (NOUN). Ajadi *et al* (2008) were of the opinion that open distance education became prominent in the eighties, specifically in1983 with the establishment of National Open University of Nigeria (NOUN) by an Act of Parliament over the growing demand for education by Nigerian youths. The authors expressed disappointment over disruption of the Act to take effect immediately as it suffered a setback with the intervention of the military in 1984 which put all democratic practices including education on hold. NOUN was later reactivated in year 2002 (Ajadi *et al*, 2008; Olatunji & Adebisi, 2021).

The outbreak of Covid-19 in December, 2019 was traced to a popular market in a city named Wuhan, China. At first, it started like play with blame game here and there. However, with the pronouncement of the virus as pandemic on 11ᵗʰ March 2020 by the World Health Organization (WHO), reality dawned on all with the understanding that the virus is a great threat to humanity (Ugochukwu *et al*, 2021). The pandemic brought a sudden change in the manner and ways of doing things. Although, the outbreak cut across all the countries of the world, the impact greatly differs from one country to another. While the impact was so lethal on some countries due to their unpreparedness, some countries were quick to transit to a new way of doing things which they tagged "the new normal". The transition was possible as a result of proactiveness and investment in life changing technologies which currently drive the world.

The negative consequences of the pandemic cut across every facet of life and no sector was exempted. Education sector which is the focus of this study was badly hit. Nevertheless, learning was taken to homes in some countries to ensure that it never stops. As part of measures to curtail further spread of the virus, closure of schools was ordered by governments of various countries because there was the general assumption that the virus is contagious and learning environment in most cases is over-crowded where mingling and interaction with other people is a common occurrence.

In Nigeria, education faced a lot of challenges even before Covid-19 outbreak. Aside from infrastructure deficit and poor funding which are major setbacks to education development, insecurity in the country has sent millions of school children out of school due to kidnapping, banditry, abduction and terrorism. Schools have been under severe attacks from faceless individuals who in most cases are on the run. This occurrence cut across all levels of education including primary, secondary and higher institutions of learning both in public and private establishments and has led to drastic reduction in the number of school children in Nigeria and attendant implication on social vices. Kidnapping creates panic, social tension, psychological trauma and untimely death (Peter & Osaat, 2021). In addition, incessant disruptions of academic programs occasioned by faceoff between the government and students, particularly in government owned institutions, portend a great challenge to educational development in Nigeria.

The Nigeria government in her wisdom and in line with international practice ordered immediate closure of schools across the country to curtail spread of the virus. Ministry of Health through the National Centre for Disease Control (NCDC) was saddled with the responsibility to sensitize and create awareness about the pandemic. Death statistics, number of infected patients and the discharged were rolled out daily to further enlighten members of the public of the dreadful nature of the virus. Government did not have it easy to convince Nigerians of how serious the virus was; people violated government directives and continued their normal way of life despite the frightening figures of the dead and the infected. A step was taken further by placing curfew on inter-state mobility of people and vehicles. Social gatherings were not left behind as recreation centres, hotels, parks, event centres, restaurants etc. had their operations under restriction.

The market place, however, remained unshut in most states as people were defiant to lockdown order and troop to market at will. Measures like physical and social distancing, regular hygiene, face masking and coughing into the elbows enforcement became difficult in market places across the country.

Governments in various states of the country sought alternative teaching/learning platforms for continuous education devoid of physical contact with tutors and fellow human beings. Television and radio broadcast were launched as teaching medium, especially for pupils in primary and secondary schools. However, it became difficult to ascertain with statistical evidence the extent of success or failure recorded using the medium (Yunusa *et al*, 2021).

At higher level, managements of tertiary institutions were left with the decision to sustain learning during pandemic by whatever means available as there was no policy framework on the next line of action. Deployment of technology apparatus was more visible in private universities than government owned institutions. Studies have shown that private businesses tend to be profit oriented and as such efforts were made by some of these universities to sustain learning online in order to have uninterrupted academic calendar and to retain and expand their student enrolment. Registration, assessment, examination and thesis supervision were carried out using IT supported mechanisms such as Whatsapp application, Zoom, Skype, Google meet and Google classroom to mention but few. On the contrary, same cannot be said of government owned institutions which before pandemic had been in poor state of maintenance characterized with outdated teaching equipment.

Literature Review

Ajadi *et al* (2008) evaluated the prospects and challenges of e-learning in National Open University in Nigeria. The study revealed that students in Nigeria National Open University (NOUN) have learnt at their pace, have input in the direction of learning, have access to IT and non-IT courses. The study concluded that lack of access to personal computers, technophobia, high cost of internet services, absence of IT curriculum, students' reaction, and high cost of software licensing currently undermined the effectiveness of distance education at NOUN.

Ayo *et al* (2014) in a study reviewed the open distance education and human development in Nigeria using three case studies. The samples were taken from two states in South Western part of Nigeria (Lagos and Ibadan). The findings show that open distance education programs faced numerous challenges including erratic power supply, lack of infrastructure, poverty and non-availability of skilled personnel. The authors concluded that what was obtained in their review was more of correspondence study program than outright online learning atmosphere.

Uzoma (2018) considered the role of open and distance education in national development of Nigeria. The author opined that open distance education contributes to national development through employment generation, poverty reduction, human capacity development and acquired entrepreneurship skills. Uzoma (2018) identified poor funding, inadequate teaching and learning facilities, irregular distribution of course materials, delay in payment of facilitators allowances, and non-utilization of information and communication technology in the centres as bane of open distance education to nation's development.

Adesina-Uthman (2013) appraised distance learning education using the National Open University of Nigeria as case study. The author affirmed that education for all (EFA) mantra necessitated open distance education while it became obvious that carrying capacity of existing universities was limited coupled with the exponential population growth rate. The findings highlighted attitude of the students, high turnover of facilitators, inadequate technology infrastructure, inadequate

funding, shortage of academic personnel, and facility breakdown as challenges of open distance education, particularly in NOUN.

Salakhova, Shamsitdinova, Shakhakimova (2020) examined the impact of IT on distance education during the pandemic in the Republic of Uzbekistan. According to the author, learning never stopped as teaching was taken home with the help of information technology. The author stated that the hidden characteristics of open distance education were brought to public awareness by the pandemic. The study pointed out that learning at a time like this requires new skills and competencies from teachers who were caught unaware by the pandemic.

Yunusa, Sanusi, Dada, Oyelere, Agbo, Obiado, and Aruleba (2021) examined the challenges associated with higher education in Nigeria at the wake of Covid-19 pandemic from lecturers' point of view. The findings show that both learning and teaching were halted as government ordered immediate closure of schools at all levels with the exemption of few private owned universities which were able to drive teaching through digital technologies. The study found that lack of infrastructure constituted a threat to remote transition from physical learning to online platform. Similarly, there was lack of policy framework on alternative teaching method from the government. The finding concluded that some lecturers used their ingenuity and collaboration with students and colleagues using digital divides to stay connected in order to ensure that learning never stopped.

Egielewa, Idogho, Iyahlomhe and Grella (2022) considered the impact of Covid-19 on digital education in Nigeria from students' perspective. Samples were obtained from universities, polytechnics and colleges of higher education. The outcome of the study revealed that poor infrastructure, weak financial power, personal and environmental factors were limiting factors to the successful deployment of online apparatus for learning in the wake of Covid-19 pandemic. The interview revealed that university students were more satisfied with online education than their counterparts from polytechnics and colleges of education. Students from colleges of education were most dissatisfied with online learning and would love to go back to traditional/physical-contact teaching system after the pandemic.

Ugochukwu-Ibe and Ibeke (2021) evaluated the challenges of teaching technical courses in Nigeria tertiary institutions in the wake of Covid-19 crisis. The study emphasized that online teaching was enhanced in the developed world during the pandemic because of investment in online apparatus, but became a major stumbling block in Nigeria due to lack of infrastructure. The findings indicated that high cost of data tariff, unstable electricity supply, poor internet network, lack of skilled personnel, and other technical issues challenged teaching, particularly of technical courses during the pandemic.

All these led to what would be the new order in higher education in Nigeria.

Challenges of Education before the Pandemic

Inadequate Budgetary Allocation

Allocation to education by the government over the years had not been encouraging and quite inadequate. The outbreak of Covid-19 has led to further reduction in allocation to education as a result of more competing needs demanding government attention. More revenue continues to be allocated to other sectors e.g. ministry of health in view of the outbreak. In reality, funding education at any level by government has always been a daunting task and there has never been a time universities are adequately funded (Akinyemi, 2011). The consequences of inadequate funding are evident in endless academic unrest, poor infrastructure, outdated equipment, shortage of academic and other support staff, dilapidated buildings, low reading culture and deficient academic curriculum (Akinyemi, 2011). Allocation to education over the years is yet to meet the United Nations Educational, Scientific and Cultural Organization (UNESCO) benchmark of 26% of the total budget. According to the Guardian (2021), ₦620b representing 7.05%, ₦671b representing 6.7%, and ₦742.5b representing 5.6% of the total budget was allocated to education in the years 2019, 2020 and 2021, respectively. Unless improvement is made to the budget allocated to education, the system which had been in a state of comatose over time may not fit well into the new teaching and learning mode occasioned by Covid-19 and the nation will subsequently suffer from human capital and national development.

Outdated Curriculum Design

The existing traditional curriculum was tailored towards teaching/learning with less emphasis on information and communication technology (ICT). In most cases, the curriculum is not subjected to review on due time, and this has hampered teaching from being dynamic like that of the advanced countries of the world. In order to thrive in the new normal environment, the Nigeria government has to ensure that the existing academic curriculum is, as a matter of necessity, updated in line with changes in the social, political, economic and technology advancement.

Lack of Training and Re-training of Personnel

Teaching and learning in an electronic environment requires appropriate skills for ease of knowledge transfer on the part of lecturers/tutors. However, lack of staff development from time to time has hindered this. A lecturer must be well grounded in technology usage and deployment of same to impart knowledge into the students. As things stand, significant numbers of lecturers are not conversant with technology, and as such are reluctant to embrace changes brought about by technological devices.

High Cost of Education and Training

The current economic challenge all over the world has definitely affected students' enrolment and desire for formal education due to weak financial power. Some students, particularly those on work-study arrangement, have lost their means of livelihood due to the pandemic. Government at all levels should ease this by providing scholarship offers to students. Moreover, through some of its agencies, particularly Tertiary Education Trust Fund (TETFUND), government should train lecturers on technology-based courses at a reduced rate.

Envisioned New Order in Nigeria Education System

Remote Learning

The Covid-19 has reshaped and brought new methods of teaching and learning into education. In higher education, in particular, lectures are given without being in physical contact with the students. Many that are not so much versed in computer usage have been encouraged to learn in order to remain relevant.

Market Expansion to Internet Service Providers

The overwhelming demand for internet services has brought about increase in the number of internet service providers which eventually signal reduction in the cost of internet to the user. Students, particularly those that are learning virtually, prefer low-cost data tariff and would, therefore, align with providers whose cost is considered cheaper and effective.

Improved Access to Education

The use of information technology has led to continuous learning in and outside schools. Lecture materials are being shared online. Tests and other assessments are taking place virtually. Physical contacts between students and lecturers, except for the practical aspect of learning which requires students and lecturers to be in the laboratory have reduced. Non-practical courses could almost be taught online.

Infrastructure Funding

The cost of funding the classroom, office spaces, furniture, and fittings to provide enabling environment for learning in schools has been shifted in favor of provision of information technology apparatus which is far cheaper and accessible to stakeholders in any part of the world. Therefore, Covid pandemic has opened a new dimension or platform of imparting knowledge into students without necessarily being in physical contact with their lecturers. This new dimension would reduce the regularity of teachers' embarking on strikes which they usually attribute to inadequate funding of education by the government. Therefore, the standard of education is most likely to be enhanced because normal contact hours of lecturers and students would not be compromised which normally happened in the traditional teaching mode.

Creativity in Learning/Teaching

The advent of the pandemic has brought and will further bring out the best of ingenuity, innovation and creativities from lecturers/tutors who will need to interact with the students from their remote homes. It is expedient on the lecturers to brace up acquiring relevant skills necessary for online/remote teaching. This will enhance personal development on the part of the lecturers.

Reduction in Labor Unrest

The frequent agitation by academic and non-academic unions including stakeholders in education will be reduced because demand for infrastructure and staff welfare will be out of place as construction of lecture theatre which is usually capital intensive will fizzle out. Also, members of staff would be remunerated based on number of contact periods with students.

Recommendations

The future belongs to countries which can seek and secure opportunities as it comes. Technology is the order of the day; therefore, Nigeria should not be left behind by not accessing opportunities provided by information and communication technology in the wake of Covid-19 pandemic. Government is advised to reshape the educational environment through digitalization of operations that can complement students-teacher relationships.

(a) Increased Budgetary Allocation
Government should increase the budget allocation to education to improve learning and promote industrialization bearing in mind that a nation with skilled citizens and right education has an added advantage over its contemporaries.

(b) Revised Curriculum
The existing curriculum should be subjected to regular review to accommodate changes in the social, political, economic and technological world order.

(c) Continuous Education for All

Government is enjoined to invest heavily in staff development over time so that the country at large may be better off in the long run. Students at all levels should be encouraged to seek and access education with ease.

(d) Flexible Learning Environment
The lecturers should disabuse their minds against information and communication technology (techphobia); government should create enabling environment that will make teaching and learning technological based courses user- friendly and simplified.

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