



Review of E-Learning Implementation in Nigeria Tertiary Education System during Covid-19 Era: Challenges And Prospect

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ABSTRACT

The novel virus (COVID-19) has dragged the education sectors in all countries of the world to an abysmal state. The educational sector which serves as a power-house and agent for the progression of any society, has recently being disrupted by the pandemic. In a bid to adjust to the changes brought on the academic calendar by the novel virus, tertiary institutions in Africa and other continents of the world are scouting for flexible and safe ways to navigate their cause. Globally, traditional mode of curriculum implementation in the educational sector has been replaced with e-learning so as to curtail the spread of the dreaded virus. More so, Nigeria's quest to fully adopt e-learning during the pandemic as an alternative to talk and chalk teaching method has been hampered by a number of challenges. The challenges sprout due to inadequate budgetary allocation to the education sector, policies mishap, infrastructural deficiency, and varying level of readiness of the tertiary institutions. It is in consonance with this underlying challenges that this paper review e-learning implementation in Nigeria tertiary education system during COVID-19 era. Furthermore, this study discuss the importance of e-learning; highlight and discuss challenges and as such prospect. This paper recommend among others governmental and non-governmental intervention in the education sector in order to fully maximize the potential of e-learning during COVID-19 era.

Keywords: Academic Calendar, E-learning, Covid-19, Curriculum Implementation, Tertiary Institution.

1. INTRODUCTION

Coronavirus as simply put by (WHO, 2020) is a large colony of viruses which cause severe diseases ranging from Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), and as such mere illness like common cold. Man has stayed with these viruses for a long time, insofar common cold has lingered. Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) was first isolated from a patient in Guandong, China in 2002, and it was later discovered that, bats is the causative agent (Zaki et al, 2012). Not more than a decade later, in the city of Jeddah, Saudi Arabia, a patient with pronounce symptoms of pneumonia was diagnosed with a new strain of Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV). According to the findings made by world health organization medical expert early 2020, some yet to be disclosed plethora of coronaviruses, which have not affected human beings are found to be circulating in animals, and there is a need for more global surveillance to uncover them.

Sometimes around mid-November, 2019 in the city of Wuhan, China a new strain of coronaviruses was isolated in a patient, what was perceived to be a mere infection turned out to be a pandemic in just few weeks of detection. The trading policies that eases mobility and connectivity amongst nations of the world made it possible for the epidemic disease to spread faster across all most the length and breadth of the earth within a short period, prompting world health organization to categories it as a pandemic on March 12, 2020 (WHO, 2020).

The Federal Ministry of Health Lagos, confirmed Nigeria's first index case of COVID-19 disease on February 28, 2020. The index case was an expatriate at Lafarge Cement Company Plc, an Italian by origin who just arrived Lagos on 25th February, 2020 from a vacation in Milan, Italy (FMoH, 2020). Not too long after the first case, just like other countries battling the pandemic they was an exponential increase in the spread of the disease across almost all the state of the federation, this prompted the Government to issue a circular directing the immediate closure of all the tertiary institutions and unity schools in the country, in other to arrest the surge of the virus (FMoE, 2020). About 91% of global student



population is impacted from the closure of educational institution globally (UNESCO, 2020). How does that sounds well? In a bid to adjust to the new normal brought on the academic calendar by the novel virus, tertiary institutions in Nigeria and other countries of the world are scouting for flexible and safe ways to navigate their cause.

Education being the agent for the progression of any society has had a great share of the consequences of the lockdown occasioned by the pandemic. Tertiary institutions in Nigeria have been making great effort to shift from the tradition method of curriculum delivery in other to contain the spread of coronavirus, hence e-learning has been introduce as alternative teaching method. E-learning which is believed to be an aspect of ICT was defined by (Turban et al, 2010) and (Okah et al, 2011) as an online dissemination of information for the aim of performance management, education, training or purpose management. The main aim of e-learning according to (Sabina, 2012) is to convert the chalk and board method of curriculum delivery and never to extinguish the curriculum or deprive the curriculum of it content. By and large, many tertiary institutions in Nigeria have been unable to fully adopt and maximize the e-learning teaching methods available.

Inadequate budgetary allocation to the education sector, un-readiness and mismanagement among others are factors that hampers the adoption of e-learning in tertiary institutions during Covid-19 era in the country. The United Nations Educational, Scientific and Cultural Organization suggested 15% budgetary allocation to the educational sector of underdeveloped countries, for which Nigeria falls in the category. But Nigeria budgetary allocations for the last ten years (2011-2020) as captioned in Table 1 reflect how Nigeria has been unable to meet UNESCO benchmark. Lack of government priority to education, as reflected in the nation's budgets, poses plethora of challenges to tertiary institutions' drive to fully implement e-learning during Covid-19.

Table 1: Federal Government of Nigeria Budgetary allocation to Education Sector (2011-2020)

Year	Budget (Trillion)	Amount Apportioned To Education (Billion)	% of Budget
2011	₦4.972	₦306.30	6.16
2012	₦4.877	₦400.15	8.20
2013	₦4.987	₦426.53	8.55
2014	₦4.962	₦493.00	9.94
2015	₦5.068	₦392.20	7.74
2016	₦6.061	₦369.60	6.10
2017	₦7.444	₦550.00	7.38
2018	₦8.612	₦605.80	7.03
2019	₦8.830	₦620.50	7.05
2020	₦10.810	₦691.07	6.70
Total	₦6.662	₦485.52	7.49

Source: Clifford (2018) – Vanguard Newspaper, Educeleb.com, 2019



It holds well to infer from the Table above that for ten budgetary year just an average of 7.49% of the total budgets went to the education sector, which is conspicuously against 15% benchmark suggested by United Nations Educational, Scientific and Cultural organization. What then is the impact of this paucity of funds on the nation's tertiary institutions in the country? According to Adeoye et al, 2020 poor funding of higher educational institutions in Nigeria will malign the drivers of e-learning: ICT infrastructures, instructors' training, electricity and among others.

As at the time of writing this paper most private tertiary institutions in Nigeria have fully implemented e-learning as a means to keep their students engaged in order to prevent brain drain and total disruption of their academic calendar during the pandemic. Many of these higher institutions like Adeleke University, Osun State have recently conducted virtual convocation for graduating students. These tertiary institutions have been a pacesetter in the deployment of ICT infrastructure (e-learning) to enhance learning during COVID-19 period. Many e-learning technologies have been exploited by higher institutions, these among others includes Bamboo learning, Zoom, WhatsApp, WIZIQ, Blackboard learn, Elucidate, and google hangout (Adeoye et al, 2020). Unfortunately, very few government owned tertiary institutions have been able to exploit e-learning during the pandemic. The chairman of ASUU, Professor Biodun Ogunyemi recently commented that it may not be feasible to adopt electronic learning because they are not yet trained to do so. More so, just a hand full public non-university tertiary institutions like Federal Polytechnics Ilaro (FPI) have keyed into e-learning during the pandemic so as to keep their students busy with academic work.

To this end, Nigeria's quest to fully adopt e-learning has been hampered by a number of problems among which are varying level of preparedness of tertiary institutions, inadequate budgetary allocations, policy mishap, and infrastructural deficiencies.

It is in consonance with these underlying challenges that this paper under-see the tertiary education system in Nigeria during COVID-19 era. Furthermore, this study discuss the importance of e-learning; highlight and discuss challenges and as such prospect. This paper recommend among others governmental and non-governmental intervention in the education sector in order to fully maximize the potential of e-learning during COVID-19 era.

2. LITERATURE REVIEW

2.1 What is Electronic Learning and Information Communication Technology?

E-learning which can also be referred to as electronic-learning is a virtual, flexible and safe-space method of learning which enables learners to interfaces with teachers online. E-learning as posited by (Kassa & Balunywa, 2013) refers to all ICT infrastructures, internet, networks and various forms of electronic media that can be deployed for learning and teaching in order to transmit skills and knowledge. Additionally, the letter "e" should connote "everything, everyone, engaging and easy" in relation with "electronic" According to (Savinina, 2012) and (Olutola & Olutoye, 2015) Information Communication Technology connote the totality of technologies such as laserdisc, direct broadcast satellite, computers, microwave, printer, fiber optic cables, telephone, multimedia, pocket switching, internet, and digital satellite system employed in harnessing, gathering, storing and dissemination of information globally. The goal of electronic learning in the context of tertiary education is majorly for curriculum delivery. This was also affirmed by (Richmond, 1997) when he said that technology impact learning vis-à-vis curriculum implementation in three distinct ways, which are:

- The use of productivity instruments for presentation, implementation of data and demonstration.
- Using curriculum-identified Apps such as virtual laboratory, process simulations, musical composition, tutorials, visualization and graphics, education games, expert systems, representation of abstract concepts and drills and practice.
- Application of data and resources on interactive maps and atlases, CD-ROM, electronic journals, online encyclopedia and references.

More so, the importance of e-learning include but not limited to interactivity, confidence of learners and instructors, better content delivery and quality curriculum in the educational system (Park, 2013).



Furthermore, Nigeria Ministry of Education (FME, 2004) gave an insight on the nations' policy on Information Communication Technology as regard education when it posited that, "the government shall provide facilities and necessary infrastructures for the promotion of ICT and e-learning" Has the government really contributed enough to the thriving of e-learning in Nigeria during the pandemic era? Definitely no.

2.2 What are the Importance of E-electronic Learning during Covid-19 Era?

Electronic learning is the only platform of learning suggested by medical experts to contain the spread of the dreaded coronavirus disease, this is because it is a virtual teaching and learning mode, hence do not require the physical interactions of lecturers and students. The online nature of e-learning will give access to lecturers and students to exploits the large pool of resources available on the internet for enhance and efficient learning. Over the years, tertiary institutions in Nigeria have been faced with the challenges of overcrowding of classes due to inadequate space to accommodate students posing a challenge to the lecturer, the flexibility, safe-pace and non-physical interactive nature of e-learning will arrest these issues as student can attend their lectures online without any disruption.

The e-learning platform grant learners the opportunity to access lectures at their comfort locations with electronic gadgets they need unlike the chalk and board curriculum delivery mode where sometimes conducive learning is hindered as a result of lack of availability of basic amenities. This is in tandem with Pingle (2011) who posit that in India undergraduate students enjoy a high level of comfort learning online with their electronic gadgets they require than the traditional chalk and board platform.

E-learning create discussion forum where students can educate themselves on grey areas bordering of their lectures eliminating the communication gaps encounter in face-face interactions. It also provides students the opportunity to go over their lectures at their own pace as recorded videos and notes are readily available for download. At the same time, it relieves stress and enhance satisfaction. E-learning opens up the real world applications of courses to students, leading to retention and enhanced knowledge.

The adoption of e-learning can go a long way to reduce the high cost of funding infrastructural amenity such as lecture classrooms in tertiary institutions. The amount of funds expended in training a student online is less compared to that of physical interaction (Arkorful & Abaidoo, 2014). The above conclusion was made after careful reviewing factors such as: time of training, the number of student trained, and distance to be travelled. Furthermore, Guragain (2016) also asserted that the monetary value of traditional platform in terms of maintenance cost, content development and distribution are exclusively on the higher side than the cost of e-learning. At a time such as this e-learning proves to be the succor to the problems encountered in the education institutions as regarding curriculum delivery.

3. CHALLENGES ASSOCIATED WITH E-LEARNING IN NIGERIA IN COVID-19 ERA

Electronic learning is the only platform of learning available at the disposal of students of tertiary institutions in COVID-19 era is unarguably confronted with lots of challenges. Among this setbacks is the lack of awareness of the efficiency and flexibility of e-learning among the teeming populace, particularly parents and guidance. The efficacy of stimulating environment for learning cannot be overemphasis, when parents and guidance fail in their duty to make this provision available the academic achievement of the students may be compromise (Smart et al, 2013).

Additionally, the lack of stable power supply in Nigeria is a major setback in exploiting the rich benefits of e-learning during the pandemic. Erratic power supply which is regarded as an age long deficiency in Nigeria has crippled the nations' economy over the years and by extension the educational sector. Most urban cities in Nigeria cannot boost of eight hours regular power supply, this has forced many households and businesses to make provisions for alternative means of power supply which in most cases not efficient and sustainable. Public Tertiary institutions in Nigeria also share in the consequences of epileptic power supply as the ICT infrastructures in most of these schools are have not been adequately utilized by students for learning and research. Private tertiary institutions in Nigeria have been able to manage the brunt of the power crises over the years, because in most cases they rely on the outrageous tuition fees paid by their



students to fund their operational cost. As at the time of writing this paper, Covenant University, Ota, Ogun State have been enjoying stable and uninterrupted power supply since inception owing to the fact that they generate their own electricity. Consequently, students who lives in the suburb of cities and rural areas are the worst hit of the problems of electricity as most of these locations are not connected to national grid.

Furthermore, the rate of poverty is another major challenge that inhibit the full adoption of e-learning during the pandemic. Since the announcement of lockdown by the Federal Government of Nigeria on the 27th of March 2020, many companies and middle scale enterprises have folded up, and those which are still in operation amidst the economy downturn have reduced the size of their workforce. How does a parent who has no stream of income during the pandemic cater for the necessary equipment needed for his children's' e-learning engagements? How possible is it for a parent who lost his job during the pandemic and now living on the little savings he has, sustain the heavy cost of e-learning for his children? The answers to these questions are not far-fetched. E-learning during the pandemic is also entangled as a result of the lack of vary level of preparation by tertiary institutions. The Chairman of ASUU was recently interviewed to share his views concerning the transition of the traditional method of curriculum delivery during covid-19 era, and in his response he highlighted that it is close to impossible to adopt in e-learning in public tertiary institution in Nigeria, due to the fact that lecturers are not trained to do so. He further elaborated that there are two stages of e-learning; the asynchronous and synchronous e-learning. The asynchronous e-learning just as the name connote does not require direct interaction of the lecturer and the students. This is when student download literatures, lecture notes and videos from online without interaction with the lecturers. But the synchronous e-learning is a technical and advanced level of electronic learning, which is a combination of both technology and pedagogy. It is synchronous because it involves direct online interaction between students and instructor. He concluded by saying that "there is nowhere synchronous e-learning is adopted globally without adequate training, sensitization and re-orientation". This was also affirmed by Ololube (2006) and Wodi (2009) when they said that to catch up with the dynamism of information communication technology which engenders creativity, innovation and knowledge, it is imperative to make provisions for continuous and aggressive training programs.

Another problem associated with e-learning in Nigeria during the pandemic, is the high cost of internet subscriptions. The cost of Data (which is a precursor to assess the internet for online teaching and learning) is still on side in Nigeria. This poses a challenge to the instructor and students. In scenarios where data is available, fluctuation of is a major challenge, mostly when it pertains to interactive sessions between leaners and lecturer (Adeoye et al, 2020). More so, electronic gadgets such as desktop computer, laptop, and android phones, which are enablers of electronic learning are still very expensive in Nigeria and as such students find it difficult to acquire them for e-learning engagements.

4. CONCLUSION AND RECOMMENDATION

Conclusively, Covid-19 pandemic has made tertiary institutions globally to look inwardly for contingencies in order adapt to the new normal in the education sector. Electronic learning is now adopted as alternative to traditional learning method thereby helping to cushion the effect of the changes brought on the academic calendar of tertiary institutions. The pandemic has uncovered the loopholes in Nigeria tertiary institutions; these gaps have left a bane in the nations' quest to fully adopt e-learning. This is conspicuous mostly in government tertiary institutions. These challenges ranges from lack of awareness of the benefits of e-learning among parents and guidance, unstable power supply, poverty, lack of training, inadequate infrastructures, high cost of data, high cost of electronic gadgets among others.

This paper recommend that there should be synergy between governmental and non-governmental agencies on awareness of the rich benefits of e-learning among the teeming populace. Government needs to review its policies around education so as to quickly adjust to other new normal that may arise in the educational sector in the future. Private tertiary institution should build on the benefits of e-learning in Covid-19 era, and also make some necessary adjustments in order to offset the challenges encountered during implementation. More so, Government should pull more resources in building and revitalizing ICT infrastructures in public tertiary institutions nationwide.



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