

Policy and National Priority Contexts of E-Learning in Contemporary African Universities: Pitfalls and Opportunities¹

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ABSTRACT

A critical institutional analysis based on the survey of secondary data was employed to generate relevant data for this paper. Relevant existing documentary resources on the impact of the coronavirus (covid-19) pandemic-induced lockdowns on education within the national policy framework responses to them were evaluated by way of comparative exploration of African universities. The analysis of the generated data indicates that the ‘disruptions’ of the coronavirus pandemic and the consequent lockdown measures imposed across the world stimulated ‘temporary shifts’ in the delivery of learning in both traditional-based and open and distance learning (ODL) university institutions. Based on the objective to assess the sequence, nature, and implications of the national and institutional responses to the ‘new normal’, the paper further found that African universities were slower in responding to the changes occasioned by the covid-19 pandemic. Also, national policy frameworks on e-learning were non-existent or slow paced; e-learning was not a national priority for most of the countries; universities with dual mode mandates mainstreamed e-learning approaches faster; pre-existing e-learning universities faced competitors as newer universities took off with strong ODL orientations, while others expanded on their mandates. The significance of the aforesaid is that a combination of global, national, and industry factors as well as institution-based e-learning ecosystem policies affected the pace of the transition to e-learning systems. These factors manifested in and from the slow-paced policy shifts, funding, and other institution-based pitfalls typically the learners’ phobia of computers, unsustainability of internet services, poor electricity, and resistant employee attitudes. Yet, open and distance learning premised on e-learning resources remain the most viable change option to the constrained access to university education in traditional face-to-face African university institutions across regional differences.

Keywords: Change; ecosystem, learning; open and distance; transition

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1. PURPOSE/OBJECTIVE

By the 4th quarter of 2019, the coronavirus (code-named covid-19 by the World Health Organization) pandemic outbreak hit the whole world like a storm with far-reaching, unimaginable implications on the socio-economic and political life of mankind. The resultant consequences included the implementation of lockdown measures by most countries by the end of the first quarter of 2020- leading to the close down of markets, schools, neighborhood centers, airline operations and tourist spots around the world. The viral pandemic produced flu-like conditions in those infected, and is very contagious and virulent necessitating the lockdowns and social distancing (Smah, 20200).

One of the foremost institutions of society that suffered tremendously is education- specifically learning, teaching and research. School or campus closure policies were occasioned by the social distancing measures put in place by authorities (Smah, 2020). Without much success, e-learning became the most viable option to continue to provide education to learners by educators. By e-learning, it is meant electronic learning education that is anchored on computer systems that form a learning ecosystem by open and distance learning (ODL) institutions. The totality of the learning ecosystem encompasses anthropogenic activities and digital technologies with far-reaching influence on academic activities in universities. By extension, a digital learning ecosystem is a means to provide personalized experiences across the learning lifecycle (Smah, 2022). Such integration opens up avenues for learners and educators to upgrade their knowledge and skills from wherever they are located. Several internet-based technologies have evolved overtime to facilitate both learning and teaching (Holzberger, Philipp and Kunter, 2013). It is imperative therefore, that a learning ecosystem should have inbuilt processes and expected outcomes to guide learning. The covid-19 pandemic provides an opportunity to spotlight African universities' responses to the changes it brought on all and sundry.

To be able to achieve this depends on a number of factors, principal of which are the national priority and institutional policy frameworks designed to achieve set goal or objective of national development. This paper contributes to the debate about the success or failure of the e-learning systems in African universities.

2. METHODOLOGY/APPROACH

A critical review approach was undertaken to explore and review existing national priority and policy frameworks informing information and technology-based learning in African universities. The critical review focused on covid-19 as either a trigger or a wakeup call to mainstream e-learning systems as a response to the shortcomings of the traditional mode of face-to-face education and learning, especially issues of access and the deterioration and inadequacies of the physical learning environments. The review also explored the practical

responses to the covid-19 pandemic-inspired e-learning by university institutions to ascertain the degree of the penetration of open and distance learning systems in the continent. The advent of e-learning was evaluated in the context of the covid-19 pandemic which forced the world of learning to a standstill and imposed the question of the possible future response of African tertiary institutions with a foresight of this or similar pandemics in the future. The overall concern of this methodological approach was to draw comparisons from different university educational responses to ‘emergencies’ of such a global proportion and scale, such as covid-19 that could alter learning modes and methodologies.

3. FINDINGS/RESULTS

The results of this study encompass three critical issues, which are presented below.

3.1 Covid-19: Was it a Trigger/Wakeup Call?

In the late 1990s, e-learning was considered an aberration in most universities in Africa. There were no curricular based on e-learning and universities generally lacked the expertise to run courses in online mode. Then came covid-19 and subsequently lockdowns and school closures in over 188 countries of the world.

As a result, one wonders whether this was a trigger or a wakeup call to escalate e-learning as an opportunity waiting to be explored in the continent where the demand for higher education far outweighs the resources, whether human, physical or policy-wise (UNICEF & AUC, 2021). Traditional, single mode universities had different forms of problems, especially infrastructure and restricted capacity to meet the needs of the teeming youths needing higher education. In a study, UNESCO (2020a), reported that more than 1.5 billion students globally were locked out of the institutions during covid-19 lockdowns.

Whereas potentials and opportunities were presented in the covid-19 pandemic lockdowns for universities and governments in the region to take advantage of and explore or capitalize on, countries like Nigeria were not ready as shown by a ‘2018 Technological Readiness Ranking’ by the *Economist Intelligence Unit’s* which ranked Nigeria 79th out of 80 countries (Adarkwah 2021 and Nwachukwu, Ugwu & Wogu 2021). This illustrates the country’s inability to easily switch to e-learning solutions for students and their educators. The educational sector in most of the countries is characterized by a plethora of problems bordering particularly on lack of adequate and sustainable policy development (Aduke, 2008; Okocha, 2020).

As Adarkwah (2021) noted, despite disparities in the access to digital infrastructure, opportunities were explored in some of the higher education subsectors but which in countries like Zimbabwe, they could not pursue with the needed vigour and focus (Zinyemba, Nhongo & Zinyemba, 2021). In the case of the Association of Pacific Rim

Universities (APRU), Sharma (2020) discussed how leaders looking at how their institutions would respond to the COVID-19 pandemic were able to move to shut down physical contact models and with speed and flexibility, instead set up online alternatives rearranging teaching, research and other aspects of campus life. This was not the case with the Association of African Universities (AAU) member institutions where processes and actions were a bit slower.

Unlike the APRU region and the advanced western countries, Tamrat & Teferra (2020) noted the difficulty associated with meagre resources, such as the required expertise in developing sustainable e-learning ecosystems in Africa. The difficulty experienced in shifting to the ‘new normal’ stemmed evidently from three facets, including structural, economic, social and technical. The structural limitations include the restricted Information and Communication Technology (ICT) infrastructure not widespread enough to promote the knowledge-economy. The economic dimensions included the use of mobile-technology (m-technology) in the continent as a result of limited access to mobile broadband and high costs associated with it, thereby affecting the operations of academic businesses. The social and political contexts of the problems relate to students returning to their families with the greater majority severely affected by the gross inaccessibility to the internet services in rural and underserved urban fringe neighborhoods.

3.2 African Universities in The Age of Technology-Enhanced Learning

The onset of the 21st century was marked with fears and trepidations associated with the “Millennium Bug” (data switch to the year 2000), which extended the ubiquity of the Digital, Computer, New Media or Silicon Age started around the mid-20th century. Until the phobia of an imminent computer-system’s crash was found to be a hoax at the onset of the year 2000, the ‘technological’ age was presumably at risk. Also known as Y2K Bug, a National Geographic (2023)’s encyclopedic entry noted that ‘Millennium Bug’ referred to the fears that the “00” would cause a major glitch in the system. The question is where were universities with engineering programs at the time, not only in Africa but all over the world to have examined the implications of this far ahead of time.

A reflection of the ‘establishment’ problem associated with university management is a collection of perspectives on higher education published in 2012 by the Committee of Deans of Postgraduate Schools in Nigerian Universities (CDPGS, 2012). The perspectives on higher education in Nigeria was published to mark the 25th anniversary of the body. In the 25 years of the activities of such an apex committee steering the affairs of postgraduate programs in Nigerian universities, only two presentations, ‘The role of Information and Communication Technologies (ICT) in Postgraduate research’ (2000) and ‘Role of Information Technology (IT) in Postgraduate education in Nigeria’ (2005) attempted to draw attention to the significance of ICT in educational learning. A cursory review of the presentations even show that they were speaking of the same thing. It was Chadwick (2014)

who recognized ‘the use of mobile devices and smart phones by a growing number of people as a facilitator e-learning and m-learning in Africa’. In a similar way, Chadwick (2014) noted that it will also be necessary to expand the coverage of broadband internet and technology infrastructure, despite growing several hurdles still to cross.

Further to this issue of policy, RUFORUM (2020) was created and existed as a response to escalate national higher education based on the importance of technologies in training by universities and polytechnics (see RUFORUM, 2020b). It claimed the institutions surveyed had bandwidth problems despite that 60% of the institutions had an e-learning platform. This picture is promising but one needs first hand assessment to determine the sustainability of these resources for learning considering that Africa has a perennial power problem afflicting institutional efficiencies.

By way of insight, Assie-Lumumba (2006) published a book on *Higher Education in Africa; Crises, Reforms and Transformation*, in which she considered ICT as one of the cardinal agents and tools for structural change (p.136). However, this perception was not in anticipation of a situation in which learning will be delivered through an entire internet-based computer systems. The centrality of the ICT in this book was limited to mere administrative processes and office operations. So, standing on a vantage position now, the author would perhaps take a different view of the importance of ICT in the delivery learning to learners by educators.

According to RUFORUM (2020), Kituyi & Tsubira (2013) Uganda Technology and Management University (UTAMU) and Makerere University have learning policies on Open Distance and eLearning (ODEL), just as the National Open University of Nigeria (NOUN), which should ordinarily support an effective e-Learning ecosystem. The e-Learning in Africa Report (UNESCO, 2012) rightly spoke of pitfalls facing the attainment of the education of pupils and students in the face of decrepit learning environments in the continent (also see The Africa Report, 2012, UNESCO, 2011a, 2010). However, whereas governments are seen as the most important agents of change, political will and leadership issues stand out as very critical elements in determining the pedigree and sustainability of that change (Ware, 2012).

3.3 African Universities and Future of Africa with or without Pandemics: Which way?

A number of problems have been identified in this contribution. For example, XIX (2020) was established as a Global Partnerships for Education (GPE) in 18 Member States in Africa to demonstrate the significance of continental bodies, such as the African Union (AU) to foster effective partnership for higher education development and address identified challenges, inclusive of e-Learning in those countries. The potential and observed failures of this approach presents a formidable challenge to e-learning in Africa, especially if another

pandemic ‘surprise’ occurs and the continent has not made any significant remedial progress in stabilizing alternatives to traditional learning systems.

As means of ensuring a fundamental shift in contemporary policy to one that embraces hybrid modes of learning and sustainability of funding, Sawahel (2023) has called on the African Union Commission (AUC) to ‘decolonize’ itself and begin to look inwards to salvage the situation of higher education in the continent. In the publication of a study in the first quarter of this year, 2023, Sawahel (2023) reports its author as saying that “Most member states are not paying their membership subscriptions. The annual financial contributions of member states have been less than 40% of the total AU budget since 2002” (p.2).

Furthermore, it has been recognized that the harmonisation of educational curriculum as well as issues of “academic mobility, quality assurance protocols, and centres of excellence, (are) still mainly floating at the AU level without being much felt at national and institutional levels,” “Most AU higher education policies depend on external sources, as more than 70% of funding for AU projects comes from bilateral and multilateral donors,”. The author decried “Such neocolonial entanglement could make the AU gradually lose its legitimacy for African societies as it complies more with the needs of external actors than those of African institutions” (p.1). It further stresses:

Thus, it is the responsibility of AU to decolonise itself and re-centre African agenda and mobilise its members to effectively implement its policies and strategies...This includes mobilising resources and expertise from the African continent, constantly engaging with African institutions, and crafting a suitability plan for its policies and strategies... The real responsibility lies with the African countries themselves who must invest at least 3% of their respective GDPs (gross domestic product) in higher education research and development and developing strong policies to link universities with industrial development. It is only through giving the highest national priority to higher education, science, technology, innovation and entrepreneurship that African countries can emerge from the quagmire of poverty and deprivation. that the AU should draft an innovation policy for states to transition to become more technology driven...This demands human resource development in areas such as artificial intelligence, robotics, the internet of things, energy storage systems, next generation genomics or gene editing technologies, mineral extraction and processing technologies along with advanced agriculture (Sawahel, 2023: 1).

It is the contention of Paterson & Luescher (2023) that universities have opportunities and must offer knowledge that is of actual use on a genuinely democratic basis, and overhaul their processes of admission and assessment so that the learning capacity of all prospective students is recognised and fostered. Instead of the notion of academic success that is currently prized at most universities on the continent, which favours students who have attended elite

high schools and valorises individual characteristics that bear little relation to the kinds of skills that will be of value in the world beyond the campus gates, most undergraduate courses should not be assessed on the basis of the knowledge stored in the student's short-term memory. Assessment should be conducted on the basis of measuring both knowledge and skills, the aim being to produce people who have learned how to learn and who can address challenging problems throughout their lives. Universities are "getting the balance wrong". It is however important to not forget that the utility of education must answer society's questions about the desired state of existence in nature, arts, humanity and science and technology.

Furthermore, as O'Malley (2021) rightly argued, none of the United Nations' Sustainable Development Goals (SDGs), especially No. 4 can be achieved without the contributions of higher education through research, teaching and community engagement. Universities both in Africa and the rest of the world, must effectively be in the spotlight to achieve what Blessinger, Sengupta & Yamin (2018) posited "as humans learning how to adapt their ways of life to fit the natural rhythms and conditions of their environment...So, with the help of modern scientific knowledge and technological innovations, countries should be looking for ways to gradually replace or supplement the old with newer ways of existence".

According to Blessinger, Sengupta & Yamin (2018), the International Higher Education Teaching and Learning (HETL) Association should aim at addressing complex human problems through "developing the global competence of all students so they have the skills to productively engage with individuals from different cultural and national backgrounds; increase students' understanding of the most pressing economic, social and environmental challenges facing the world today; significantly increase students' physical and virtual mobility across nations so that many more students experience realities outside their domestic contexts and deepen their understanding of challenges and opportunities in other parts of the world; commit to cross-border and cross-sector research, knowledge sharing and innovation in collaboration with institutions' public and private stakeholders in pursuit of novel solutions to the SDGs; and communicate publicly about the progress and importance of higher education's global engagement".

Also, as RUFORUM's (2020a) Webinar Report suggested, African Governments should develop "smart budgets" that aim to reduce the costs of internet data bundles, the tax on digital gadgets and promote digital education across the entire education value chain and ensure equitable access to electronic-education (e-education) platforms. How do we predict and forestall the pandemics of the future? Kakuchi (2022) sees this in collaborative research. The disruptive lessons from the covid-19 pandemic since 2019 should make governments more keen on research that will help with early detection, including the origins of infectious diseases (zoonosis) that jump from animals to humans. Governments must prioritize the provision of safe public health systems despite the

challenging access to sophisticated and expensive technologies.

4. CONCLUSION/IMPLICATIONS

The development of Africa, nay any continent for that matter, lies not so much in what they have as in how they manage what they have; nor is it in the lack or absence of formidable policies and frameworks in themselves- but so much in the flexibility to adapt to new changes imposed by natural and man-made factors. Thus, at the heart of the development of any society lies the effective utilization of their cultural creations and endowments, namely- technologies, human resources, education and what they have. In this context the roles of universities as centers of excellence come to the fore. Universities are considered as the intellectual vanguard of all societies. As such, it is expected that through research and innovation, out breaks of social, economic and political issues of enormous proportions are predicted and, hopefully prevented.

The outbreak of covid-19 pandemic, that spread rapidly around the world was sudden, which should not have been so- were our researchers, engineers and politicians vigilant over the affairs of their countries. In the 1930s, there was a similar pandemic in the name of the “Spanish Flu” that ravaged the world at that time. It had the same consequential implications on human interactions- sports, schools and markets were closed. In the 2019 viral infections due to coronavirus, most institutions- health institutions, universities, laboratories, especially in the developing world, which Africa illustrates, were caught gapping- failing to learn from the lessons of history. Several ‘conspiracy theorists’ took the center-stage, such as the blame game of who was responsible for the outbreak of the virus while many people were dying, schools were shut, markets were closed and global migration came to a sudden halt with dire financial, monetary, investment and social interactive consequences. According to Airport Council International (ACI), all this had a direct impact on international students who were stranded all over the world.

The implications of the results of this contribution include the fact that universities in Asia, Europe and America were better positioned to quickly change modes of learning delivery compared to Africa, where the opportunities for sustainable e-learning were missed due to political, policy and national priority questions. Ojo (2019), for example, located the e-learning problems in Africa, with Nigeria as a case in point, to the fear by proponents of traditional governance approaches, regarding the potency of the development and implementation of transformative electronic governance (e-governance) of the continental and national processes. This is because e-governance is a veritable instrument of transparency and accountability. Unfortunately, most universities were closed for a long time before e-learning options were considered in the continent.

Danladi (2018) also reported that corruption is at the heart of the operations of the implementation of curriculum at the tertiary educational institutions in Nigeria and Africa. This comes in different forms and sheds, for example, contract over invoicing, poor quality curriculum content development, inexperienced educators and illegal enrollment issues. Danladi (2018) went further to include the *theft of public property, embezzlement of public funds, appropriation of public property, nepotism and engagement of learners with planned learning opportunities and outcomes* as evidence of the plethora of higher education problems in Africa. Ajayi, Jacob & Ayoko (2023) also included on the list of problems ‘shortage of technological facilities, unstable power supply, poor internet services, shortage of computer teachers, inadequacies of ICT facilities as well as poor ICT policies’, among others. These problems are widespread in the entire continent.

Academics in public institutions were themselves not even in support of virtual classes (Lawal, 2020). This is a big problem that belies the depth of e-learning problems in universities across Africa. However, newer, private universities took advantage and structured their curricular and are better placed to challenge the ‘supremacy’ of traditional open and distance universities. The conventional ODL universities were also closed down during the lockdowns and, in spite of their vantage positions, they could not write examinations. The covid-19 pandemic was not a tonic, then; it was rather a shock- telling the world that a lot more then and now still need to be done to mainstream e-learning and mobile (m-)learning processes across modes of educational services delivery as a complement or an outright alternative to the traditional, face-to-face learning. The root cause of the crisis in online university educational institutions in Africa has been interlocked in the lack of clear, focused, and deliberate national and institutional integrated ICT frameworks for national development, inclusive of learning and educating, all of which relate directly to poor governance (nepotism), political will and leadership questions. Gunga & Ricketts (2006), fourteen years before covid-19 pandemic, however, while acknowledging the challenges facing e-learning in African universities, noted that the problems confronting the continental e-learning initiatives can be surmounted, proposing the possibilities of multistakeholder collaboration networks that can make policymakers, telecommunication network service providers and teachers enthrone online learning as an immediate, medium and long term solution to higher education crises in the continent’s universities and other institutions of learning.

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