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Review Article

The Impact of COVID-19 on Projects and Logistics in Nigerian Tertiary Institutions: A Scoping Review

*¹Piring'ar Mercy Niyang, ²Itunu Omolade Dave-Agboola, ²Ibrahim Bola Gobir

About Article

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About Author

¹ Department of Project Management,
Salford Business School, University of
Salford, England, UK

² Georgetown Global Health Nigeria,
Abuja, Nigeria

Contact @ Piring'ar Mercy Niyang
pmniyang@gmail.com

ABSTRACT

The smooth functioning of a tertiary institution relies on a multitude of projects and logistical operations, encompassing various aspects such as student registration, healthcare provision, transportation, accommodation management, teaching and learning processes, information dissemination, data collection, and research, among others. Consequently, the implementation of lockdown measures aimed at mitigating the transmission of COVID-19 significantly disrupted projects and logistics in Nigerian tertiary institutions. As a measure to mitigate the transmission of the virus and reduce mortality rates, governments worldwide implemented the closure of schools. This study aims to explore the impact of the COVID-19 pandemic on projects and logistics in relation to tertiary institutions in Nigeria. The PICO framework was used to identify the key terms that guided the literature search to identify suitable papers for the scoping review yielding 56 relevant studies and empirical case examples published between 2020 and 2024. Well-established databases which include PubMed, the Cochrane Library, and CINAHL to identify scholarly articles using Search selection. The studies included were selected based on established inclusion and exclusion criteria. The selected studies were critically appraised using the Critical Appraisal Skills Program (CASP) tool to ensure that good quality studies were used. Data was extracted from the selected studies and presented in themes and sub-themes. The impact of COVID-19 on tertiary institutions includes the shutdown of educational institutions, the halt of research projects, the disruption of academic schedules, poor learning outcomes, inequitable access to educational opportunities, insufficient or non-existent technology for remote learning, and inability to attend seminars and conferences because the logistics for travelling were affected by the COVID-19 lockdown. The Nigerian government and academic institutions should include digital applications for logistics, projects, and instructional purposes to ensure that there is no disruption in academic activities during public health emergencies such as COVID-19.

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1. INTRODUCTION

The COVID-19 pandemic refers to the global spread of the coronavirus disease 2019, which is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), an infectious disease (WHO, 2020). The initial occurrence of the novel coronavirus was identified in China in December 2019, and subsequently, the virus disseminated swiftly to several nations globally.

As a consequence of these events, the World Health Organization (WHO, 2020) made the decision to officially proclaim a Public Health Emergency of International Concern (PHEIC) on the 30th of January 2020. Subsequently, on the 11th of March 2020, the WHO further classified the outbreak as a pandemic. The national public health response in Nigeria was directed by the Nigeria Centre for Disease Control (NCDC) in collaboration with the National Emergency Operations Centre (EOC).

The expeditious transition to remote learning as a viable strategy to sustain the educational continuum in specific regions after the abrupt closure of schools are among the consequences of the COVID-19 shutdown. Furthermore, it is imperative to acknowledge the significant role played by key stakeholders in the educational sphere, such as educators, professors, and scholars, in their efforts to address and minimize the repercussions of the COVID-19 pandemic on the realm of higher education (Jandric, 2020; Setiawan, 2020). A significant majority, exceeding 75% of the federated states within Nigeria experienced school closures. In response, the government at the state level endeavored to implement alternative teaching methods, specifically e-Learning initiatives such as televised and radio-based educational broadcasts. However, the transition from traditional classroom learning to a global learning environment proved challenging for tertiary institutions in Nigeria. Furthermore, it is evident that there is a dearth of empirical data that supports the efficacy of e-Learning solutions in Nigeria.

Additionally, there are notable research deficiencies in identifying the most effective strategies for facilitating successful teaching and learning outcomes through virtual interactions between educators and students (Choudhury & Pattnaik, 2020).

Logistics plays a pivotal role in the various activities that individuals partake in daily. Logistics include the transportation of individuals from one place to another, as well as the transportation of goods and services from one destination to another (Gudehus & Kotzab, 2012). The outbreak of COVID-19 in Nigeria in February 2020 and the following implementation of a lockdown had a substantial influence on various projects and sectors, including education. This resulted in considerable disruptions to numerous activities, with certain projects being totally halted (Akinyemi *et al.*, 2020). Tertiary institutions are involved in several substantial logistical activities, including extensive data collection, communication processes, printing operations, transportation arrangements, and data processing procedures (Stilyana *et al.*, 2020).

The expeditious transition to remote learning as a viable strategy to sustain the educational continuum in specific regions after the abrupt closure of schools are among the consequences of the COVID-19 shutdown. Furthermore, it is

imperative to acknowledge the significant role played by key stakeholders in the educational sphere, such as educators, professors, and scholars, in their efforts to address and minimize the repercussions of the COVID-19 pandemic on the realm of higher education (Jandric, 2020; Setiawan, 2020). Nevertheless, numerous developing nations, namely those in Sub-Saharan Africa, including Nigeria, exhibited a lack of sufficient readiness to effectively address a pandemic of this scale (Mbiydenyuy & Silungwe, 2020).

1.1. Purpose and objective of the study

To assess the Impact of COVID-19 on projects and logistics in Nigeria and its impact on public tertiary education in Nigeria. The specific objectives is to;

- i. To examine the impact of COVID-19 on project and logistics
- ii. To examine how the disruption in projects and logistics affected tertiary education in Nigeria.
- iii. To assess the measures taken by the university managements and staff to sustain academic activities despite the disruption in logistics caused by COVID-19.

2. LITERATURE REVIEW

Tertiary institutions undertake substantial logistical operations, including extensive data gathering, communication, printing, transportation, and data processing (Stilyana *et al.*, 2020). The smooth functioning of a tertiary institution relies on numerous projects and logistical tasks, such as student admission, student registration, healthcare services, transportation, accommodation management, teaching and learning, information dissemination, data collection, and research (Eom *et al.*, 2010). Consequently, the lockdown measures implemented to control the spread of COVID-19 severely disrupted academic activities (Yunusa *et al.*, 2021). Before the emergence of COVID-19, experts advised educators to modernize their educational system, course content, and teaching methods to keep pace with the swift progress in technology in projects and logistics (Tartari *et al.*, 2012). The swift adoption of remote learning as a substitute method to sustain the educational process in many regions after the abrupt closure of schools is one of the consequences of the COVID-19 lockdown.

UNESCO (2020) reports that the closure of educational institutions has a significant impact on over 70% of the global student populations. Developed countries successfully shifted from traditional classroom learning to virtual learning to minimize the effects of the COVID-19 lockdown on education. But developing nations, specifically those in sub-Saharan Africa, such as Nigeria, encountered challenges in managing the disruptions caused by the pandemic (Ebohon *et al.*, 2021). The challenges that countered the seamless transition of classroom learning to online learning were primarily attributed to inadequate project planning and logistics, such as insufficient internet connectivity, competing funding needs, and skill deficiencies (Chothia, 2020). The tertiary institutions in Nigeria also faced a lot of challenges in academic projects and logistics during the COVID-19 lockdown.

The COVID-19 pandemic has had a significant effect on higher education in Nigeria, primarily manifested through the complete



closure of educational institutions without the provision of viable remote learning alternatives. In response, governmental bodies and non-governmental organizations attempted to implement radio-based learning as a temporary substitute for primary and secondary schools. However, this alternative approach did not yield the anticipated results (Ogunode *et al.*, 2021). In Nigeria, educational institutions experienced a prolonged closure lasting six months, namely from May to November 2020. Additionally, public universities were affected for a duration exceeding ten months due to a strike initiated by the Academic Staff Union of Universities (ASUU) that began in January (Hruby, 2020). Moreover, the lockdown affected the revenue of many tertiary institutions because they had to pay staff members and the students who are their major source of income were at home and no revenue could be generated from the students; hence the tertiary institutions ran short of funds (Campbell & McCaslin, 2020).

3. METHODOLOGY

3.1. Research design

This study was conducted through a scoping review of existing scholarly literature. A scoping review requires the analysis of pertinent literature from reputable sources, which is known as secondary data collection. By using secondary sources, researchers can obtain a more comprehensive view of the issue being studied, leading to a deeper knowledge of its intricacies (Mwita, 2022).

3.2. Inclusion criteria

The following is a list of the inclusion criteria for this scoping review:

- i. Studies that entail the impact of COVID-19 on projects and logistics in Nigeria and how it affected tertiary education.
- ii. The research will only include publications that are available in full text to ensure that the researcher has access to all the information provided by the authors.
- iii. Only studies that were published about the COVID-19 lockdown of the year 2020 will be included in the research.
- iv. This scoping review will only consider articles that are published in English because English is the language of this study.

3.3. Exclusion criteria

- i. Studies that do not entail the impact of COVID-19 on projects and logistics in Nigeria and how it affected tertiary education will be excluded from the scoping review.
- ii. Studies that the full texts are not accessible will be excluded from the research.
- iii. Studies that were published about other pandemics apart from COVID-19 will be excluded from the research.
- iv. Studies that are published in other languages apart from English will be excluded from the research.

3.4. Selection of studies

An extensive search for relevant literature was conducted using the key phrases listed in the PICO framework, based on the

specified inclusion and exclusion criteria. The author searched well-established databases covering 56 relevant studies which includes PubMed, the Cochrane Library, and CINAHL to identify scholarly articles that will achieve the aim and objectives of the research. The Boolean operators, “AND” and “OR”, were used to construct logical expressions and keywords to facilitate a literature search (Eriksen & Frandsen, 2018).

3.5. Evaluation of the quality of the studies selected.

After identifying relevant studies through an extensive literature search, a thorough evaluation was performed to assess their compliance with the criteria of validity, reliability, and acceptability. The researcher employed the critical appraisal approach of study evaluation proposed by Varai *et al.* (2020), which entails the utilization of the Critical Appraisal Skills Programme (CASP) tool and its standardized checklists. The CASP tool consists of a set of ten questions that are presented consistently and systematically (Long *et al.*, 2020).

3.6. Data extraction

A thematic analysis will be conducted to identify and extract recurring themes from the studies that have been chosen for the scoping review. The extracted theme will be presented in themes and narrative synthesis. The data that has been extracted will be displayed in a table format to demonstrate uniformity and offer a concise summary of the studies that were incorporated in the narrative evaluation.

3.7. Data analysis

The secondary research study depends on previously conducted studies for data collection. To acquire pertinent and significant data for analysis, a researcher must initially assess, arrange, and meticulously analyze the collected data (Lester *et al.*, 2020). The data collected for this study was subjected to thematic analysis to discover reoccurring themes. The acquired data was analyzed thematically to address the study topics.

3.8. Data synthesis

Data synthesis refers to the process of combining and analyzing data from multiple sources to generate new insights or conclusions. The data collected in this research was analyzed utilizing the method of theme analysis and thereafter conveyed through narrative synthesis.

3.9. Ethical Considerations

Ethical considerations are a crucial aspect to be considered in various academic disciplines and research endeavors. These considerations involve the examination of the studies to ensure that human rights were not violated and that there was no bias in the selected studies.

4. RESULTS AND DISCUSSION

4.1. Data extraction

The extracted data is presented in tabular format to demonstrate consistency and succinctly present the findings of the study as shown in table 3 below:



Table 2. Data extraction

Author of publication and year	Research design	Aim of research/ intervention	Outcomes	Recommendations
Aiyedun & Ogunode (2020)	Survey	This study aimed to assess the impact of the COVID-19 pandemic on the academic programs and logistics of Nigerian institutions.	The study showed that the COVID-19 pandemic had an impact on academic programs, resulting in significant disturbances in academic operations and logistics in tertiary institutions.	Based on the findings, it was recommended that tertiary institutions should move more of their activities such as registration, admission processing, and receiving lectures to online platforms to reduce the need for physical presence in the smooth running of operations in tertiary institutions.
Ogunji <i>et al.</i> (2022)	Survey	To evaluate the impact of COVID-19 on the activities and logistics in the tertiary institutions in Nigeria.	A decision was made to halt all programs and instructional activities being provided in Nigerian universities as the COVID-19 pandemic lockdown affected the logistics of activities in tertiary institutions. To avoid the stagnation of academic activities, online learning was preferred as an alternative. The study's findings submitted that Nigerian tertiary institutions lack the necessary readiness to implement e-learning methods as a substitute for traditional teaching and learning approaches during emergency circumstances.	The research indicates the need for implementing training programs to enhance the confidence of academic staff and students in utilizing e-learning platforms. Additionally, it advises the provision of necessary facilities to provide a seamless transition to the new normal.
Suleman & Olayinka (2021)	Survey	To examine the impact of COVID-19 on academic learning, projects And the academic achievement of students at tertiary institutions in Lagos state, Nigeria.	The study's findings indicated that the introduction of online running of academic activities and school projects was greatly impacted by the technical and financial resources available as well as students' motivation levels. This was a consequence of the COVID-19 lockdown, which necessitated the provision of online teaching. The use of online platforms for school activities during the COVID-19 pandemic promoted the continuity of academic activities to an extent, but the logistics activities in the schools were halted.	There is a need to build the capacity of the students and staff members of tertiary institutions on how to use online platforms for learning and other logistic activities such as student registration and procurement activities.



Sambo <i>et al.</i> (2021)	Survey	To examine the impact of COVID-19 on Nigerian higher education institutions.	The study's findings indicate that the conventional face-to-face learning strategy could not continue due to COVID-19 restrictions, resulting in prolonged school closures and a significant decline in academic activities, project stagnation, and impaired logistic activities.	One recommendation from the report is to conduct a comprehensive review of the Nigerian Policy on Education. This assessment would enable the development of future pandemic preparations that might prevent the need for school closures or disruptions to instruction. This objective may be accomplished through two methods: by implementing e-learning in public schools and by providing them with access to contemporary educational resources.
Ibrahim (2021)	Survey	To evaluate the effectiveness of e-learning in mitigating the impact of the COVID-19 pandemic in Nigerian tertiary institutions.	The study's findings indicate that Nigeria's e-learning strategy faces several obstacles, including a scarcity of human resources, opposition to change, inadequate internet access, insufficient power supply, and costly internet data plans, among other issues. However, the study also shows that these issues will ultimately improve spontaneously. Considering the impact of the COVID-19 pandemic on tertiary institutions, e-learning is now widely recognized as a valuable idea.	To ensure the learner's success, it has been recommended that both students and lecturers should be trained on how to use e-learning platforms to prevent hitches during the learning process.
Binwai (2021)		The article examines the effects of the COVID-19 pandemic on the long-term viability of higher education and logistics in tertiary institutions in Nigeria.	Several barriers to the use of online platforms for academics and logistic activities were identified, such as the inadequate online library resources in Nigerian tertiary institutions, unreliable or absent internet connectivity, and inadequate knowledge of information and communication technology resources	Based on the research findings, tertiary institutions should implement rules that encourage the utilization of contemporary communication resources such as computers for Skype and Zoom, as well as electronic libraries, to address the learning needs of students without in-person meetings.
Yunusa <i>et al.</i> (2021)	Interviews	To analyze the impact of COVID-19 on education and logistics in Nigeria's higher education industry.	The findings indicated that the COVID-19 pandemic had a detrimental effect on activity in tertiary institutions because they were forced to shut down and academic operations came to a halt during the outbreak. The successful adoption and implementation of e-learning in Nigerian higher education institutions is hindered by a scarcity of essential resources, insufficient proficiency, and poor logistical support.	The COVID-19 lockdown has shown that ensuring the effectiveness of online teaching and online learning approaches has become essential to fulfil the needs of all students. This will be beneficial in the future for addressing challenges about accessibility and insufficient educational opportunities during emergencies. This will ensure that any physical limitations do not hinder the process of learning and put lessons at risk.



Eze <i>et al.</i> (2021)	Exploratory mixed method	To investigate the impacts and challenges that COVID-19 has presented for tertiary education in Nigeria.	The study's findings showed that COVID-19 had adverse effects on school enrolment, teaching and learning activities, the widening of academic performance gaps, and educational inequalities.	Adapting and adjusting teaching and learning approaches to accommodate all students was found to be crucial during emergencies such as the COVID-19 pandemic that led to a lockdown. This implies that e-learning opportunities should be integrated into the academic curriculum to ensure that academic sessions remain unaffected and that geographical limitations do not impede education.
Oyediran <i>et al.</i> (2021)	Survey	This research aims to assess the effectiveness of e-learning in mitigating the impact of the COVID-19 lockdown on tertiary institutions in Nigeria during the COVID-19 pandemic lockdown.	The study's findings suggest that the utilization of the Internet for the purpose of integrating learning has not yielded positive results in Nigerian tertiary education. The effectiveness of e-learning was limited during the COVID-19 lockdown due to inadequate preparation, inadequate electric power supply, lack of internet facilities, and socioeconomic factors.	To overcome the obstacles that impede e-learning in tertiary education institutions, the government should prioritize the establishment of a reliable and uninterrupted power supply. To reduce the expenses incurred by high tariffs, it is also recommended to promote the local production of diverse information and communication technology accessories.
Ebohon <i>et al.</i> (2021)	Cross-sectional study	This study seeks to investigate the impact of the COVID-19 lockdown on logistics and tertiary education in Nigeria and provide recommendations for the development of remote teaching and project implementation strategies.	As a result of the COVID-19 lockdown, students at higher education institutions were compelled to complete their courses through online learning. However, there was a lack of effective contact between the lecturers and the students which impaired online learning activities. Projects in higher institutions were also grounded because the logistics to implement projects were grounded by the COVID-19 lockdown as well.	To facilitate a more interactive teaching experience while conducting online classes, both students and faculty members must possess a comprehensive understanding of the many functionalities offered by digital technology.

4.2. Impacts of the COVID-19 Pandemic on projects and logistics in tertiary institutions

4.2.1. Halting research projects

The COVID-19 pandemic had a profound impact on the education of students in their final year. This includes both students who were enrolled in graduation classes, as well as postgraduate students who were actively working on their projects under the physical guidance and supervision of their instructors who could not continue their work (Ebohon *et al.*, 2021). Ibrahim (2021) also submitted that the implementation of physical distancing measures hindered students from collecting data for their research due to their inability to engage in face-to-

face interactions through data collection methods that involved direct human interactions.

4.2.2. Lack of logistics to attend physical Conferences and Workshops

Suleman and Olayinka (2021) assert that the COVID-19 lockdown measures and social distance regulations hindered the academic staff of tertiary institutions from participating in physical activities that are beneficial for their personal and professional growth such as participating in seminars and conferences. This is in tandem with the submission of Ogunji *et al.* (2022) that the COVID-19 lockdown and social



distancing rules prevented academic staff members from attending in-person conferences and seminars, which were moved to online platforms due to travel limitations caused by COVID-19. The tertiary institution staff members however expressed dissatisfaction with the lack of opportunities to connect and establish new professional networks and partnerships.

4.2.3. Suspension of enrolment and graduation logistics and activities

Due to the COVID-19 restrictions, freshly admitted students who were supposed to begin their studies were unable to attend school for enrollment and registration to commence academic activities. Similarly, final-year students who were supposed to graduate were unable to do so since they were unable to finish their schoolwork and complete their clearance. In addition, the COVID-19 limits imposed logistical constraints that hindered the advancement of research projects among final-year students.

4.3. The impact of COVID-19 on tertiary education

4.3.1. Closure of schools

The findings of this study (Aiyedun & Ogunode, 2020; Ogunji *et al.*, 2022) indicate that the COVID-19 pandemic led to the closure of schools, resulting in the loss of instructional time for students enrolled in tertiary institutions. In addition, Binwai (2021) and Sambo *et al.* (2021), submitted that COVID-19 led to a loss of academic sessions as students had to return to their prior academic level after spending about two semesters at home due to the COVID-19 lockdown.

4.3.2. Poor learning opportunities

The findings of this study demonstrate that regular interactions with educational institutions, which are essential for tertiary education in Nigeria, could not be substituted by online learning as an alternative to conventional classroom instruction. According to the study done by Eze *et al.* (2021), a significant majority of students (98%) reported encountering difficulties while attempting to learn remotely. A quote from Eze *et al.* (2021), says: "For now, getting involved in effective online teaching and learning is almost impossible for an average Nigerian student that schools in a public tertiary institution, though it may be possible for students in private schools".

4.3.3. Lack of equal access to e-learning resources

Poor/unequal access to education opportunities was also identified and confirmed as a major impact of COVID-19 on education and learning in Nigerian tertiary institutions (Suleman & Olayinka, 2021). This is because there is poor access to technological devices, poor electricity, and network issues that are almost general in Nigeria (Ibrahim, 2021). According to Sambo *et al.* (2021), "Teachers and parents in Nigeria were not well prepared to handle online learning, hence they could not support the students". Eze *et al.* (2021) also posited that the majority of Nigerian tertiary students are either insufficiently connected to the internet or lack the gadgets to access educational opportunities online amidst the covid-19 pandemic.

4.3.4. Challenges related to homeschooling

As the COVID-19 lockdown led to school closures and the introduction of online learning from home, difficulties in homeschooling were encountered by the learners. Interview data from Oyediran (2021) showed that effective homeschooling was difficult for both the parents and the learners, and in isolation, does not support considerable academic growth. According to Oyediran (2021). "The parents were under pressure of economic threat– how to meet up with daily up-keep of the family and not in the position to play the supervisory or teaching role." Ebohon *et al.* (2021) also submitted success in homeschooling is difficult to achieve due to several factors, such as the parents' educational background, and socioeconomic conditions which made them unable to support their children's homeschooling. Homeschooling was negatively impacted by the inadequate level of participation from all parties involved (lecturers, students, and parents).

4.3.5. Inadequate access to technology for distance learning

Due to the limited availability of the Internet, especially in remote areas, distance learning was not feasible for many students during the COVID-19 pandemic (Aiyedun & Ogunode, 2020; Sambo *et al.*, 2021). Moreover, there was a lack of established rules that oversee the development and delivery of online education in Nigerian tertiary educational institutions (Suleman & Olayinka, 2021). The lack of preparedness within the school system led to the difficulties encountered in distance learning. Furthermore, most teachers and students do not have the necessary resources for virtual education (Ibrahim, 2021; Yunusa *et al.*, 2021).

4.3.6. Urban-rural disparities in resource access to online learning resources.

This scoping review found that urban and rural areas exhibit disparities in terms of the distribution of resources and access to resources (Ibrahim 2021; Aiyedun & Ogunode, 2020).

The findings of this study also indicate that there are disparities in the availability of educational resources between urban and rural locations, which poses challenges in delivering a high-quality education during the closure of schools due to COVID-19 (Ibrahim, 2021; Suleman & Olayinka, 2021; Aiyedun & Ogunode, 2020). According to Eze (2021), a study found that 53% of parents and 59% of instructors acknowledge being impacted by the disparity in educational resource availability between urban and rural areas. Yunusa *et al.* (2021) found that a considerable number of students in their research had challenges related to poor power supply and insufficient internet connectivity (76%). Additionally, a large fraction of these students lacked sufficient technological skills and competence (67%). These findings indicate that parents, teachers, and children living in remote locations have limited access to resources (Sambo *et al.*, 2021).

4.3.7. Poor knowledge of ICT among teachers and students

In addition, the study found that teachers' insufficient understanding of online education and internet usage was a notable obstacle to online education in tertiary education in



Nigeria (Eze *et al.*, 2021). The COVID-19 pandemic, which necessitated the use of online learning, was the reason for this.

4.3.8. Pessimistic attitude to online learning

An important obstacle to online learning is the presence of a pessimistic attitude to online learning. Oyediran (2021) states that most of educators, parents, and students in Nigeria have doubts regarding the appropriateness and effectiveness of online learning and assessment. According to the report of Binwai's (2021) research, parents and instructors may be unwilling to consider online learning because they believe it cannot be as effective as conventional classroom teaching. Their pessimistic mindset hindered their ability to participate in online learning, thereby preventing them from offering the necessary assistance to the students.

4.4. Discussion based on research objectives

The research objectives are elucidated by the discussion below:

4.4.1. The impact of COVID-19 on project and logistics

The findings of this study suggest that the implementation of COVID-19 lockdown measures and social distancing rules hindered the ability of the staff of tertiary institutions and other professionals to physically participate in conferences and seminars. Consequently, the meetings were shifted to virtual platforms because of travel limitations and constraints on in-person contacts. However, the professionals expressed their dissatisfaction with the restricted opportunities to convene and establish new professional partnerships and connections.

This corroborates the report of Evens' (2020) that the COVID-19 pandemic prevented academic dons from tertiary institutions from participating in physical activities that help them to network and establish professional networks. Woodruff *et al.*, 2021 also submitted that lecturers from tertiary institutions were unable to make use of the opportunities for in-person networking that they often had during conferences, seminars, and workshops as COVID-19 restrictions limited their ability to do so.

In addition, both undergraduate students in graduating classes and postgraduate students engaged in research projects had obstacles in pursuing their studies due to the implementation of physical distancing measures, which hindered their ability to collect data for their studies. This was because they were unable to engage in in-person interviews and other data-collecting techniques that required direct human connections. This statement aligns with the assertion made by Bratan *et al.* (2021) that the COVID-19 pandemic significantly disrupted several ongoing research activities in the healthcare sector and other industries. This is also in tandem with Jacob *et al.* (2021), that the effects of COVID-19 on school administration in Nigeria involve the suspension of academic programs, internal examinations, and extra-curricular activities. It also disrupts the academic schedule and prevents the enrollment and graduation of new students. Conversely, Omary *et al.* (2021) opined that it is more beneficial to be under lockdown than to contract COVID-19 while conducting research.

4.4.2. How the disruption in projects and logistics affected tertiary education in Nigeria

Based on the results of this scoping investigation, the COVID-19 outbreak led to the shutdown of schools in Nigeria, causing students enrolled in higher institutions to miss out on instructional time. Due to the complete halt of educational activities at Nigerian tertiary institutions, students in their final year, who were scheduled to graduate on a specified day, had their graduation postponed until the government decided to reopen the schools. Moreover, a significant proportion of scholars were affected since they were unable to continue their research endeavors during the period of closure of the institution. The lockdown in Nigeria had a significant impact on those who were enrolled in advanced study programs and those who had made reservations to attend conferences, both domestically and internationally.

This aligns with the submission of Rotas and Cahapay (2020) that a significant number of educational institutions worldwide were closed to adhere to the procedure set by the World Health Organization for the initial response to the COVID-19 virus. This action was taken during the WHO's deliberation on the most efficacious approach to address the pandemic. Furthermore, according to Akinyemi *et al.* (2020), the COVID-19 pandemic resulted in the cancellation of both local and global logistic activities. Furthermore, due to the shutdown of schools in Nigeria, learning activities at higher education institutions had to be shifted to virtual platforms. However, virtual learning activities in Nigeria were limited due to a lack of access to technological devices, insufficient power supply, and network issues, all of which are prevalent challenges in Nigeria. Moreover, the students encountered challenges with online education because many students lacked access to essential technical resources, and a higher percentage of parents were unable to offer their children the required support to ensure that their virtual learning was successful. Parents had challenges in supporting their children's virtual learning due to their lack of familiarity with the platforms utilized for online education. In addition, several parents were preoccupied with their job obligations and enterprises, therefore unable to offer assistance for their children's remote education. These findings align with the results of Owusu-Fordjour *et al.* (2020), who investigated the impact of COVID-19 on the logistics of education in Ghana. The investigation revealed that when tertiary institution learning was moved to virtual platforms due to the COVID-19 pandemic, many of the students were unable to study effectively from home because the online learning system was strange to them, and they did not have adequate information technology resources and power supply as well as poor support from their lecturers and parents.

Furthermore, this scoping review revealed disparities in the accessibility of educational resources across urban and rural areas. This poses challenges in delivering a high-quality education to students in remote areas during school closures due to COVID-19. Moreover, the insufficient understanding of online education and internet usage among lecturers in Nigerian higher schools was a substantial obstacle to the adoption of online education efforts inside the Nigerian tertiary



education system. This is also in tandem with the submission of Owusu-Fordjour *et al.* (2020), which asserts that although the Ghanaian government introduced e-learning platforms for tertiary students to continue their education during the COVID-19 lockdown, these platforms also posed significant challenges for the majority of students because both students and lecturers were not prepared for the virtual learning experience. Moreover, a significant number of Ghanaian students lacked the requisite technical expertise in using technology gadgets and had restricted availability to internet connectivity (Owusu-Fordjour *et al.*, 2020). Similarly, Noor *et al.* (2020) highlighted some barriers to the application of online learning during the COVID-19 pandemic in Pakistan which include the exorbitant expense of data, uncooperative learners, teachers with poor knowledge of technological self-efficacy, and insufficient network infrastructure.

4.4.3. The measures taken by the university management and staff to sustain academic activities despite the disruption in logistics caused by COVID-19

The university administrations and faculty implemented steps to ensure the continuation of academic activity despite the logistical challenges posed by the COVID-19 pandemic. Following the abrupt closure of schools in Nigeria due to the COVID-19 shutdown, there was a transition to remote learning as a potential means to sustain the educational process in certain areas. The stakeholders in tertiary education, such as lecturers, professors, and researchers, made efforts to address and mitigate the impact of the COVID-19 pandemic on higher education through virtual learning platforms. However, the findings of this study demonstrated that virtual education in Nigeria during the COVID-19 pandemic posed significant challenges for both students and instructors.

The findings from this study show that a considerable proportion of lecturers lack the essential skills required to effectively conduct virtual learning, highlighting potential challenges in institutions' preparedness for transitioning to online learning. Moreover, a significant proportion of the students and lecturers lacked adequate knowledge of online learning as well as essential infrastructure such as power supply and internet connectivity. Additionally, students encountered challenges related to accessibility. This corroborates the findings from Aboagye *et al.* (2020), which indicated that both students and lecturers were unprepared for the shift from face-to-face learning to online learning because they both had accessibility issues with online learning platforms. Additionally, Utunen, *et al.*, (2020) reported that a minority of lecturers were capable of effectively facilitating remote teaching and learning.

Furthermore, Gyampoh *et al.* (2020) performed a parallel analysis to assess the preparedness of tertiary institutions to offer remote teaching and learning possibilities during the COVID-19 crisis. The findings reveal that only 33.3% of the lecturers have the requisite proficiency to conduct remote sessions.

Moreover, none of the academic institutions examined by Gyampoh *et al.* (2020) have the essential infrastructure to seamlessly facilitate the shift to emergency remote education. According to Bhebhe and Maphosa (2016), it is crucial for

educators to possess a comprehensive understanding of pertinent educational technology to effectively incorporate technology into an educational environment.

According to James and Pattison (2020), some professors used their ingenuity to establish a virtual connection and engagement with their students to ensure project supervision during the COVID-19 disruptions. An instance of this may be seen in the use of a digital platform, specifically Microsoft Teams, at the Brigham and Women's Hospital Fellowship in Cardiovascular Medicine to minimize the COVID-19 disruptions that were happening to the academic activities being conducted during the fellowship (Almarzooq *et al.*, 2020). Furthermore, James and Pattison (2020) detailed the disruptions that the COVID-19 pandemic generated in the recruitment and selection processes for healthcare workers. To mitigate the adverse effects of the disruptions, they employed video conferencing as a substitute for in-person interviews at that moment. According to the research conducted by Khattar *et al.* (2020), COVID-19 had a profound impact on the logistics and learning processes of children, causing significant disruptions that were difficult to mitigate due to inadequate public health and educational preparedness.

This scoping review found that the transition to virtual learning due to the closedown of tertiary institutions during the COVID-19 pandemic proved to be ineffective in most Nigerian tertiary institutions, especially the public ones. This situation revealed the weakness of the educational system in Nigeria since there was no clear regulatory framework in place to steer educational institutions towards non-traditional classroom methods. Additionally, there is a deficiency in the essential infrastructure to facilitate the implementation of remote education. Moreover, issues related to the rural-urban divide, possession of digital devices, and the requisite skills to operate them further compound the situation. Some private tertiary institutions in Nigeria have successfully addressed these limitations by establishing and sustaining connections and interactions with their students and faculty via digital applications such as Zoom, WhatsApp, Telegram, and Skype to ensure the continuity of learning. The wealth disparity between the rich and the poor further widened since only the affluent had the financial means to enroll their children in private higher education institutions. Furthermore, the adoption of e-learning within the COVID-19 pandemic required users to adapt and enhance their skill sets. Based on the results of this study, it is evident that most educators, parents, and children were unprepared for the sudden onset of the COVID-19 pandemic and how it affected the projects and logistics of tertiary education.

5. CONCLUSION

This research investigated the impact of COVID-19 on projects and logistics in the Nigerian tertiary education system. Based on the findings of this study, the tertiary education system in Nigeria faced several problems during the COVID-19 pandemic. The challenges encompassed the shutdown of tertiary educational institutions, the halt of research initiatives, the disruption of academic schedules, subpar learning outcomes, inequitable access to educational



opportunities, obstacles related to homeschooling, insufficient or non-existent technology for remote learning, disparities in resource allocation and access between urban and rural areas, and insufficient proficiency and expertise among teachers and parents. Furthermore, the research revealed that COVID-19 had an adverse impact on school enrollment, exacerbating achievement gaps and educational inequalities, among other consequences.

The COVID-19 pandemic compelled tertiary institutions to move learning activities to online platforms, but virtual learning was not successful because the tertiary education system in Nigeria was not prepared for the transition. Several tertiary institutions had difficulties when transitioning from traditional face-to-face classes to online classes. These hurdles were mostly caused by insufficient funding, inadequate facilities, and a lack of adequately trained staff. Despite the presence of online lecture facilities at the tertiary school, students persistently expressed their inability to access them due to various reasons, such as unreliable power supply, expensive mobile data, and increasing costs of technological devices. Due to the absence of virtual learning in the Nigerian educational system, the COVID-19 pandemic significantly impacted projects and logistics in tertiary institutions.

RECOMMENDATIONS

To mitigate the impact of such a public health emergency on the educational sector, it is imperative to take precautions and prepare for such emergencies. It would be optimal if outbreaks such as COVID-19 no longer posed barriers that hindered the continuity of educational activities, including teaching, learning, and other academic endeavors inside educational institutions. To ensure the continuity of learning and teaching in Nigerian educational institutions during public health emergencies that prevent physical learning interaction, the following recommendations are hereby proffered. The government should ensure that tertiary institutions receive adequate funding to improve their Information Communication Technology (ICT) infrastructures and also strengthen tertiary institutions to minimize the negative effects of the pandemic on their financial capabilities. To address the ongoing issues surrounding the availability of infrastructure, specifically the lack of Internet access which hinders the learning process, the government should collaborate with local Internet service providers to make Internet access more accessible to people in rural areas. Given the increasing employment losses caused by the pandemic, it is imperative for tertiary education institutions to incorporate entrepreneurship education into their curriculum to provide students with the skills necessary for self-reliance upon graduation. When conferences, seminars, or workshops are moved to online platforms, there should be a networking opportunity as well such that the participants will not have the impression that virtual meetings have cut them off from networking. This can be done by creating WhatsApp or Telegram groups for networking among professionals.

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REFERENCES

- Aboagye, E., Yawson, J. A., & Appiah, K. N. . (2020). COVID-19 and E-Learning: The Challenges of Students in Tertiary Institutions. *Social Education Research*, 2(1), 1–8. <https://doi.org/10.37256/ser.212021422>
- Aiyedun, T. G., & Ogunode, N. J. (2020). Effect of Covid-19 pandemic on academic programme of universities in Nigeria. *Electronic Research Journal of Engineering, Computer and Applied Sciences*, 2, 193–201.
- Akinyemi, K. O., Fakorede, C. O., Anjorin, A. A. A., Abegunrin, R. O., Adunmo, O., Ajoseh, S. O., & Akinkunmi, F. M. (2020). Intrigues and challenges associated with COVID-19 pandemic in Nigeria. *Health*, 12(8), 954–971.
- Almarzooq, Z. I., Lopes, M., & Kochar, A. (2020). Virtual learning during the COVID-19 pandemic: a disruptive technology in graduate medical education. *Journal of the American College of Cardiology*, 75(20), 2635–2638.
- Bhebhe, S., & Maphosa, C. (2016). Examining teachers' computer literacy and utilization of ICTs in teaching and learning at primary school level. *Journal of Communication*, 7(2), 231–240.
- Binwai, P., & Abubakar, I. A. (2021). Impact of Covid-19 Pandemic on Sustainability of Nigerian Tertiary Institutions: A Case Study Of University Of Jos. *International Journal of Research In Commerce and Management Studies*, 3(1), 01–09.
- Bratan, T., Aichinger, H., Brkic, N., Rueter, J., Apfelbacher, C., Boyer, L., & Loss, J. (2021). Impact of the COVID-19 pandemic on ongoing health research: an ad hoc survey among investigators in Germany. *BMJ open*, 11(12), e049086.
- Campbell, J., & McCaslin, J. (2020). *How Nigeria has responded to COVID-19 so far*. Council on foreign relations. Retrieved from <https://www.cfr.org/blog/how-nigeria-has-responded-covid-19-so-far>
- Chothia, A. (2020). *Coronavirus outbreak closes all South African universities, colleges*. TheSouth African. <https://www.thesouthafrican.com/news/coronavirus-southafrican-universities-colleges-closed-nzimande>
- Choudhury, S., & Pattnaik, S. (2020). Emerging themes in e-learning: A review from the stakeholders' perspective. *Computers & Education*, 144, 103657.
- Ebohon, O., Obieniu, A. C., Irabor, F., Amadin, F. I., & Omoregie,



- E. S. (2021). Evaluating the impact of COVID- 19 pandemic lockdown on education in Nigeria: Insights from teachers and students on virtual/online learning. *Bulletin of the National Research Centre*, 45(1), 1-11.
- Eom, J., Stone, J. & Ghosh, S. (2010). *Daily Activity Patterns of University*.
- Eriksen, M. B., & Frandsen, T. F. (2018). The impact of patient, intervention, comparison, outcome (PICO) as a search strategy tool on literature search quality: a systematic review. *Journal of the Medical Library Association: JMLA*, 106(4), 420.
- Evens, R. G. (2020). The impact of a pandemic on professional meetings. *Radiology: Imaging Cancer*, 2(3), e204012.
- Eze, U. N., Sefotho, M. M., Onyishi, C. N., & Eseadi, C. (2021). *Impact of COVID-19 Pandemic on Education in Nigeria: Implications for Policy and Practice of e-Learning*. Online Submission.
- Gudehus, T., & Kotzab, H., (2012). *Comprehensive logistics*. Springer Science & Business Media.
- Gyampoh, A. O., Ayitey, H. K., Fosu-Ayarkwah, C., Ntow, S. A., Akossah, J., Gavor, M., & Vlachopoulos, D. (2020). Tutor Perception on Personal and Institutional Preparedness for Online Teaching-Learning during the COVID- 19 Crisis: The Case of Ghanaian Colleges of Education. *African Educational Research Journal*, 8(3), 511-518.
- Hruby, A. (2020). A rough road ahead for Nigeria: Atlantic council. Lagos: Atlantic Council. Ibrahim, A., 2021. Investigating educational significance of e-learning in Nigerian universities post-COVID-19: Implications for assuring quality e-assessment. *E-Journal of Education*, 9, 207-218.
- Ibukun, W. O., & Aboluwodi, A. (2010). Nigeria's national policy on education and the university curriculum in history: Implication for nation building. *Journal of education and practice*, 1(2), 9-17.
- Jacob, O. N., Deborah, J., Elizabeth, A., & Samuel, A. (2021). Impact of Covid-19 on Educational Planning in Federal Capital Territory, Abuja, Nigeria. *Educational Journal of History and Humanities*, 4(1), 55-62.
- James, H. K., & Pattison, G. T. (2020). Disruption to surgical training during COVID-19 in the United States, United Kingdom, Canada, and Australasia: a rapid review of impact and mitigation efforts. *Journal of Surgical Education*, 78(1), 308-314.
- Jandrić, P. (2020). Postdigital research in the time of Covid-19. *Postdigital Science and Education*, 2(2), 233-238.
- Khattar, A., Jain, P. R., & Quadri, S. M. K. (2020), May. Effects of the disastrous pandemic COVID 19 on learning styles, activities and mental health of young Indian students-a machine learning approach. In *2020 4th International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 1190-1195). IEEE
- Kiger, M., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical teacher*, 42(8), 846-854.
- Long, H. A., French, D. P., & Brooks, J. M. (2020). Optimising the value of the critical appraisal skills programme (CASP) tool for quality appraisal in qualitative evidence synthesis. *Research Methods in Medicine & Health Sciences*, 1(1), 31-42.
- Nigeria Centres for Disease Control and Prevention. (2020). *COVID-19 response in Nigeria*. <https://covid19.ncdc.gov.ng/advisory>
- Mwita, K. (2022). Factors to consider when choosing data collection methods. *International Journal of Research in Business and Social Science*, 11(5), 532-538.
- Newman, A., Bavik, Y. L., Mount, M., & Shao, B. (2021). Data collection via online platforms: Challenges and recommendations for future research. *Applied Psychology*, 70(3), 1380-1402.
- Nwachukwu, P. O. (2014). Funding education for sustainable development in Nigeria: Challenges and the way forward. *Journal of Education and practice*, 5(20), 51-56.
- Ogunode, N. J., Ndubuisi, A. G., & Terfa, A. C. (2021). Impact of the Covid-19 Pandemic on Nigerian educational institutions. *Electronic Research Journal of Engineering, Computer and Applied Sciences*, 3, 10-20.
- Olatunde-Aiyedun, T. G., Ogunode, N. J., & Eyiolorunse Aiyedun, C. T. (2021). Assessment of virtual learning during covid-19 lockdown in Nigerian public universities. *Academia Globe: Inderscience Research*, 2(5), 159-175.
- Ogunode, N. J., Ndubuisi, A. G., & Terfa, A. C. (2021). Impact of the Covid-19 Pandemic on Nigerian educational institutions. *Electronic Research Journal of Engineering, Computer and Applied Sciences*, 3, 10-20.
- Ogunji, C. V., Onwe, J. O., Ngwa, E. S., David, E., Olaolu, M., & Cresantus, B. (2022). Higher education and the new normal: implications for sustainable post covid-19 era in Nigerian tertiary institutions. *Cogent Education*, 9(1), 2125206.
- Owusu-Fordjour, C., Koomson, O. C. K., & Hanson, D. (2020). The Impact of Covid-19 on Learning. The Perspective of the Ghanaian Student. *European Journal of Education Studies*, 7(3). <http://dx.doi.org/10.46827/ejes.v0i0.3000>
- Oyediran, W. O., Omoare, A. M., Owoyemi, M. A., Adejobi, A. O., & Fasasi, R. B. (2020). Prospects and limitations of e-learning application in private tertiary institutions amidst COVID-19 lockdown in Nigeria. *Heliyon*, 6(11).
- Pollock, D., Davies, E. L., Peters, M. D., Tricco, A. C., Alexander, L., McInerney, P., ... & Munn, Z. (2021). Undertaking a



- scoping review: A practical guide for nursing and midwifery students, clinicians, researchers, and academics. *Journal of advanced nursing*, 77(4), 2102-2113.
- Rotas, E. E., & Cahapay, M. B. (2020). Difficulties in Remote Learning: Voices of Philippine University Students in the Wake of COVID-19 Crisis Difficulties in Remote Learning: Voices of Philippine University Students in the Wake of COVID-19 Crisis, (December). <https://doi.org/10.5281/zenodo.4299835>
- Samaddar, R. (2020). Introduction: Borders of an epidemic. In Samaddar, R. (Ed.), *Borders of An Epidemic: COVID-19 and Migrant Workers*. Calcutta, India: Mahanirban Calcutta Research Group.
- Sambo, U., Bello, M. A., & Sule, B., (2021). Impacts of COVID 19 on policy of tertiary education in Nigeria: The case of professional diploma in education students of federal college of education. *American Journal of Education and Learning*, 6(1), 28-42.
- Setiawan, A. (2020), April 10. *Scientific Literacy Worksheets for Distance Learning in the Topic of Coronavirus 2019 (COVID-19)*. Reading Academic Articles.
- Stilyana, V., & Lilyana, K., & Miroslav G. (2020). Interaction Between Higher Education Institutions And Business Organisations In The Field Of Logistics And Supply Chain Management. *Economy & Business Journal, International Scientific Publications, Bulgaria*, 14(1),116-129.
- Tartari, V., Salter, A., & D'Este, P. (2012). Crossing the Rubicon: exploring the factors that shape academics' perceptions of the barriers to working with industry. *Cambridge Journal of Economics*, 36(3), 655-677.
- UNESCO. (2020a). *COVID-19 Educational Disruption and Response*. <https://en.unesco.org/covid19/educationresponse>
- UNESCO. (2020b). *COVID-19 Impact on Education*. <https://en.unesco.org/covid19/educationresponse>
- UNESCO. (2020c). *Monitoring COVID-19 Caused by School and University Closure*. <https://covid19.uis.unesco.org/global-monitoring-school-closures-covid19>
- Woodruff, P., Wallis, C. J., Albers, P., & Klaassen, Z. (2021). Virtual conferences and the COVID-19 pandemic: are we missing out with an online only platform?. *European urology*, 80(2), 127.
- World Health Organization, (2020). *The Coronavirus Disease(COVID-19) pandemic*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Yunusa, A. A., Sanusi, I. T., Dada, O. A., Oyelere, S. S., Agbo, F. J., Obaido, G., & Aruleba, K. (2021). The impact of the covid-19 pandemic on higher education in Nigeria: university lecturers' perspectives. *IjEDict-International Journal of Education and Development Using Information and Communication Technology*, 17(4), 43-66.

