

The Impact of Corona Virus Disease (Covid-19) Pandemic on the use of Library in Nigeria

**Abimbola Labake Agboke^{1*}; Felicia Nkat v Undie²;
Akeem Ayodeji Agboke³; Rose Ezeibe⁴**

Cataloguing and Classification Section, University Library, University of Uyo, Uyo. Akwa
Ibom State, Nigeria^{1*}; Department of Library and Information Science, Cross River University of
Technology Calabar, Cross River State, Nigeria²; Faculty of Pharmacy University of Uyo, Akwa
Ibom State, Nigeria³; University Library, University of Uyo, Akwa Ibom State, Nigeria⁴

bimbo.agboke@yahoo.com*

ABSTRACT

The paper aims at the positive and negative impacts of COVID – 19 on the use of libraries in Nigeria. The study reviewed previous researches on COVID – 19. Textbooks, Journals and electronic databases were consulted for the literature searches. Conclusions and recommendations were drawn in the light of the literatures reviewed. The study reveals the rapid spread of the pandemic between a space of one year despite all the necessary preventive measures introduced by the government and the Health Sectors in Nigeria. COVID-19 crisis has brought digital libraries into the limelight through the many benefits it has to offer, which were in the past unseen or non-essential. To maintain and obey the COVID -19 protocols, libraries' opening hours were reduced, most libraries system changed to online services. Libraries provided online services to assist students and researchers to have access to materials for their academic work. Library staff used Web tools to deliver messages to the users, the use of the internet became essential in the libraries. Library professionals organised seminars, conferences, meetings and workshops through Zoom and Webinar platforms. However, the traditional system of library services of the use of prints resources and physical visitation into libraries were greatly reduced. The paper recommended amongst others, the digitalisation of all library resources, effective training and development of the library staff on the use of computers and internet tools.

KEYWORDS: Impact, COVID -19 Pandemic, Use of Library, Vaccine, Immunisation.

*Corresponding Author

INTRODUCTION

Coronavirus disease (COVID-19) pandemic is a novel virus identified on December 31, 2019, in Wuhan, Hubei city of China. (World Health Organisation, 2020). The virus is highly contagious and has a multiple death rate. The common symptoms include fever, dry cough, tiredness, shortness of breath, pains and aches, sore throat, diarrhoea and nausea or a runny nose. WHO, (2020). It is a global pandemic that spreads within a short time. The virus affected several countries around the world including Nigeria. The first confirmed case of COVID-19 in Nigeria was announced on 27 February 2020 where an Italian citizen who entered Nigeria from Milan on a business trip, was tested positive in Lagos, Nigeria. Nigeria Centre for Disease Control (NCDC), (2020). On 27 April 2021, a total number 164,912 cases have been confirmed, 155,012 cases have been discharged and 2,063 deaths have been recorded in 36 states and the Federal Capital Territory of Nigeria. Nigeria Centre for Disease Control (NCDC), (2021). indicating how far the virus has spread in Nigeria within the space of one year. To curtail the spread of this virus, WHO, (2020) recommended frequent washing of hands, wearing of face mask, avoiding touching surface, social distancing, lockdown and isolation or quarantine to fight the pandemic. In consideration of the urgent need to protect the health and wellbeing of Nigerians in the face of the widespread and rising numbers of COVID-19 cases in Nigeria, By March 10, 2020, Nigeria adopted all the WHO COVID 19 protocols and signed them into regulation on January 26, 2021. Any person who contravenes the provisions of these Regulations commits an offence and it is punishable on summary conviction, by a fine or a term of six months imprisonment or both in accordance with Section 5 of the Quarantine Act. (COVID-19) Health Protection Regulations 2021). The country went on total lockdown because of this sudden disaster, livelihood changed drastically overnight. All educational institutions, schools, universities and libraries were closed, due to this crucial situation, all activities of human life were on hold because of human safety and benefits. During this lockdown, educational institutions all over the world adapted distance learning methods and shifted towards online courses. In Nigeria, all the universities, colleges, secondary, primary schools and libraries were closed down in order to maintain social distancing and curtail the spread of coronavirus. Across the world, people are taking extraordinary precautions to combat the dreadful situations created by COVID-19. Now the countries are reopening lockdown gradually by implementing standard operating procedures (SOPs) issued by the governments because people need to learn how to live with this condition. This new situation is called "New- Normal." Rfiq and others, (2020). Nigeria also introduced an eased lockdown which entered phase II as of, July 1, 2020. (NCDC, 2020).

The library exists to satisfy the information needs of the parent's body. Olajide and Adio, (2017) stated that the library is a busy information centre, where information is packaged in various formats to the advantage of the users. Libraries established to provide information resources and services to support teaching, learning and research in academic institutions such as universities, polytechnics, colleges of education and other similar institutions are referred to as academic libraries. Abubakar, (2011) opined that academic libraries are at the forefront of providing information services to their respective communities which comprise students, lecturers, and researchers to support teaching, learning and research. The purpose of the university libraries is to provide adequate and relevant information resources both in print and non-print formats. The print information resources like journals, textbooks, magazines, newspapers and reference materials and non-print like CD-ROM, audio-visual materials, microfilm, microfiches, databases, and e-resources are to support assignments, projects work, term papers and seminar presentations by providing relevant information and services for effective and efficient achievement of academic excellence.

However, during the COVID 19 pandemic restrictions libraries were also locked down. Since the major aim of libraries amongst others is to disseminate information to the users, due to the hard-hit from the COVID 19 pandemic, public services have been paralysed, academic activities and classes were restricted online due to the closure of colleges. Libraries have to look for other effective ways of disseminating information. Community members and the public needed information on how to protect themselves against coronavirus. Given this, librarians have been highly engaged to control the situation through effective dissemination of relevant health information on COVID 19. IFLA (2020), reported that on 23rd March 2020, the president of IFLA had announced that "Libraries around the world are being affected by the emergence and spread of the coronavirus. This situation has made librarians around the globe to mobilise and provide a collection of valuable and reliable information on coronavirus to give people a source they can trust (IFLA, 2020). There was a need for the libraries to perform their function of dissemination of information during the locked down because, citizen, students and researchers and the public as a whole needed to make use of information. Therefore, the libraries evolved various means of disseminating information during the COVID - 19 pandemics and lockdown in Nigeria. This paper aims to discuss the impacts of the COVID - 19 pandemic and lockdown on the use of libraries in Nigeria.

THE OBJECTIVE OF THE STUDY

The following are the objectives of this study:

1. To examine the positive impacts of COVID - 19 pandemics and lockdown on the use of libraries.
2. To identify the negative impacts of the COVID - 19 pandemic and lockdown on the use of libraries.
3. To examine the effects of Coronavirus vaccine on the management of the spread of COVID - 19 in Nigeria
4. To recommend the way forward on the use of libraries during the COVID 19 pandemic, lockdown and any other pandemic in Nigeria.

The Positive Impacts of COVID - 19 Pandemic and Lockdown on the use of Libraries

The emergence of the COVID -19 pandemic and lockdown has both positive and negative impacts on the use of libraries in Nigeria and all over the world at large. Many types of research have been conducted on the COVID -19 pandemic and lockdown. The following are the positive effects of COVID – 19 on the use of libraries.

Library organised online seminars and conferences during COVID 19 Pandemic

The use of online became essential during COVID – 19, COVID – 19 Leverage technologies to promote digital library services such as holding a virtual research party. In this way, the library can reach out to faculty and students more effectively and innovatively. Keep developing a digital library experience that enhances remote and distance learning through seamlessly accessing library e-resources and digital library services off-campus, actively integrating digital content and services into Library Management Policy and collaboratively connecting to other academic community, etc. Asif and Singh (2020). Asserted that COVID – 19 gave the libraries opportunities of Learning with the Virtual Platform/Webinar. This is the time for library professionals to avail opportunities and improves their skills/ability for outreach in the virtual environment. They can organise virtual seminar or webinar. Now a day, there has been a trend of the webinar and there is some specialised applications/software to conduct the virtual meeting, webinar, video conferencing, live chat, etc. A web-based (virtual) seminar platform can be used to conduct online meetings, lectures and conferences.

Webinar software provides the online platform, where mutual interaction between the speakers and attendees takes place to carry out audio-visual communication. Webinar software provides real-time interactive features like

multiple hosts/clients, polls/voting, live chat, questions & answers, screen sharing, etc. This technology is also useful in online teaching, lectures, training and learning purposes. Downloading/connecting Links are given hereunder for a few applications/software, most of them offer free trial/module and require the simple process to run as indicated in the connecting links. Libraries can use these facilities for knowledge sharing purpose among the staff/researchers/users. Libraries can strengthen online services to provide access to their resources. Recently, the National Digital Library of India (NDLI) has initiated specially designed collections of e-resources for a specific group of students to help the student community in the difficult situation arising out of the suspension of physical classes and closure of physical libraries arising out of COVID-19 lockdown. The services are provided through the library social networking pages. NDLI, (2020).

Libraries also provided online services to assist students and researchers to have access for materials for assignments, selection and dissemination of information resources on COVID-19 to researchers were made available virtually. For example, virtual instruction, online reference services, access to e-books and e-journal, linking users to health institutions and organisation on information relating to coronavirus, publish a pamphlet and handbills for safety measures against coronavirus were made available online. Ishtiaq, Sehar and Shdid, (2020) reported that University libraries are preferring and contributing to their patrons in terms of increasing their knowledge in online education. According to the findings of their study, most of the library staff is using different web tools to deliver messages effectively. The study revealed that the private sector university libraries of Sindh are providing awareness programs. These options are being used to interact with their library members to provide the information and to answer their queries such as mobile application, web-based live chat, Facebook, Skype, LinkedIn, Instagram, Mobile Application Services Messengers updates data on social sites, email management, and other. Hence libraries are offering both services like providing instruction through Google class or virtual class, giving access to library resources through VPN and document delivery. Onifade, (2020) in her study, 'Library Services during COVID-19 Period: Federal University of Agriculture, Abeokuta Experience' reported that Information literacy training was conducted for users and staff through Zoom, Skype and Google meet.

Libraries made effective use of Social Media Platforms during lockdown

Neog, (2020) in his study on 'Library Services through Social Media during Lockdown due to COVID-19 with Special Reference to University Libraries of Assam', revealed the effectiveness of the use of social media in delivering library services during the lockdown. It was seen that 75% of the libraries were providing 'reference services' during lockdown through social media. 'Information about library events' was provided by 50% of the libraries. 25% of university libraries under this study have been providing 'news on library services'. 'Access to open access resources' has been provided by 100% of the libraries. 'Access to COVID-19 resources' has been provided by 50% of the libraries and 25% of libraries have been providing 'Link to Web Online Public Access Catalogue OPAC' by the use of social media during the lockdown. Neog also discovered in the same study that Facebook and Blog have been used by 50% of the University libraries for delivering library services during the lockdown. Twitter and some other social media platform have been used by 25% of the university libraries and WhatsApp has been used by 100% of the libraries during the lockdown. Neog, (2020) concluded that Social Media is instrumental in disseminating information and providing library services to the library users as well as to the public in this pandemic situation. Responding to the need of the hour, libraries have been utilizing various social media tools like WhatsApp, Facebook, Twitter, etc. for disseminating information to their clientele.

Ladan, Haruna and Madu (2020) in their study, 'COVID-19 Pandemic and Social Media News in Nigeria: The Role of Libraries and Library Associations in Information Dissemination' found that the libraries and library associations played a role in disseminating genuine information against all the fake news and conspiracy theories to fight against the COVID-19 pandemic. The Nigerian Library Association (NLA) through its Facebook and blog page joined the World Health Organisation (WHO), to create awareness on the precautions to avoid further spread of the pandemic. This campaign by the Nigerian Library Association is to tap on how the virus outbreak can bring the best out of the library professionals. Libraries provided and share information quickly, efficiently and in real-time as strategies in response to COVID- 19 pandemic through their social networking pages like Facebook, Twitter, Instagram and LinkedIn (Ladan, Haruna & Madu, 2020). They provided a platform for gathering and disseminating information to promote awareness of the current situation through the use of the internet and blogs. Agim, and others. (2020), opined that, the librarians' used social media trusted sources to disseminate COVID 19 information. Social media as a Web-based channel of information dissemination is rapidly permeating all aspects of the librarians' profession as it has been used to communicate with potential library users, as well as extending the information services to other remote users particularly in the community (Ganiyu and Oluwafemi, 2016). Librarians realised the potentials of social media such as Facebook, Twitter, YouTube, Linked In, Skype, and Google+, and other social tools during COVID 19 pandemic and they were greatly used as sources of disseminating information to the registered library users and the entire public.

The Negative Impacts of COVID – 19 Pandemic on the Use of Library

The traditional library services were hindered

Researchers discovered that COVID 19 pandemic has brought about various negative effects to the use of libraries in Nigeria and all over the world the traditional library system of users coming to make use of physical resources like prints materials and group discussion was hindered. Bhati & Kumar (2020) observed that the physical library systems are stuck due to maintaining the rules of social distancing to help overcome the spread of virus infection. Onifade, (2020) reported that in Federal University of Agriculture, Nigeria other colleges library were closed down attention was concentrated on the main library, the number of staff that comes to work was reduced, the number of users that visit the library was reduced and the library opening hours were reduced. Reopening libraries in COVID 19 pandemic, (2020). Mestri stated that, Libraries in the World are facing the hard problem of providing library services ranging from continuing existing services or some of them or full closure. Mehita & Wang (2020). observed that due to COVID-19 protocols, Clement C. Maxwell Library, Bridgewater State University has reduced the opening hours, number of staff that come to work, number of users that visit the library, the library building is accessible with only one door open, group study rooms are currently not in use and so on, to observe COVID-19 protocols library staff were reduced and on a rotational basis.

Oche, (2021) reported that library services were poorly provided by university libraries during COVID-19 lockdown in the State-owned University libraries in North Central, Nigeria. His reports revealed that the observance of COVID-19 protocols affected the effective use of library resources and services in State University libraries in North Central, Nigeria. It was gathered among other things that; wearing a face mask makes users uncomfortable while reading, charging and discharging were suspended to prevent the materials from been effected, social distancing affected group studying, with COVID-19 protocols some services are not offered in the library, some library resources are not available due to fear of being affected thus, are quarantined for some days, library opening hours have been reduced to observe COVID-19 protocols, numbers of users in the reading room have been reduced,

the whole re-arrangement of the library due to COVID-19 protocols discourages effective use of library resources, and having an audience with the reference librarian is now online (no face to face contact).

The effects of Vaccine on the management of the spread of COVID - 19 in Nigeria

The vaccine is a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute treated to act as an antigen without inducing the disease. Gilbert and Allison, (2004). Vaccines have demonstrated an excellent historical capacity for the elimination of many infectious illnesses such as tetanus, diphtheria, polio, rabies, pertussis, measles, and yellow fever. Huo, et al. (2016). The routine immunization program and the expanded program on immunization have enabled the number of persons covered for immunization. Huo et al. (2016). Ojakaa and others. (2011) reported that the development of a safe and effective vaccine against the Ebola virus disease (EVD) has been identified as an important tool for the prevention of future EVD outbreaks.

The daily rise in COVID-19-related cases and fatalities despite the non-pharmaceutical interventions in Nigeria indicates the inadequacy of the present COVID-19 mitigation measures. This, therefore, reveals the need for the development of vaccines for the aversion of further spread of COVID-19 locally and globally including Nigeria. Ilesanmi, Afolabi and Uchendu, (2021). Ola and others, (2020) reiterated that wearing masks and staying 6 feet apart from others help reduce the chance of being exposed to the virus or spreading it to others, but these measures are not enough. Vaccines will work with the immune system to fight the virus if infected. Stopping a pandemic requires using all the tools we have available. As experts learn more about how COVID-19, vaccination may help reduce the spread of the virus that causes COVID-19. NCDC, (2019). Nigeria federal government has embraced the use of Covid-19 vaccine called AstraZeneca/university of oxford (UK): a viral vector vaccine but available data are currently insufficient to access vaccine efficacy or vaccine-associated risks in severely immunocompromised persons, who may have diminished immune response to the vaccine. AstraZeneca, (2021). According to WHO, (2021), the first set of COVID-19 vaccines was shipped to Nigeria on the 2nd of March 2021 by COVAX. Information and, where possible, counselling about vaccine safety and efficacy profiles in immunocompromised persons should be provided to inform the individual benefit-risk assessment.

DISCUSSION

In an interviewed conducted by the researcher on the Impacts of COVID -19 on the use of Libraries in Nigeria the findings indicated that most Nigerian Libraries were not fully utilised during COVID - 19 pandemic because restriction was placed on the use of physical material, group discussion were prohibited so that people can maintain social distancing and people were forced to wear face mask., all these COVID 19 Protocols hinders the use of the libraries in Nigeria during COVID – 19 . This was supported by the findings of Oche, (2021) that library services were poorly provided by university libraries during COVID-19 lockdown in the State-owned University libraries in North Central, Nigeria. His reports revealed that the observance of COVID-19 protocols affected the effective use of library resources and services in State University libraries in North Central, Nigeria. It was gathered among other things that; wearing a face mask makes users uncomfortable while reading, charging and discharging were suspended to prevent the materials from been effected, social distancing affected group studying, with COVID-19 protocols some services are not offered in the library, However, the researcher discovered that most libraries' users made used of social media like WhatsApp's, Face – book and others to disseminate information during coronavirus Pandemic in Nigeria. This corroborates the finding of (Ladan, Haruna & Madu, 2020). Libraries provided and share

information quickly, efficiently and in real-time as strategies in response to COVID- 19 pandemic through their social networking pages like Facebook, Twitter, Instagram and LinkedIn

CONCLUSION

The emergence of COVID – 19 brought about many challenges to the whole world ranging from social distancing, use of facemask, washing of hands to total lockdown and others. Many businesses were halted, libraries in Nigeria were not left out of this. The COVID -19 has impacted the use of libraries both positively and negatively. Online resources were greatly used, libraries organised online workshops and conferences through Zoom, Webinar and others during COVID -19 lockdown. This has enabled the librarians and library users to improve their skills on the use of Information Communication Technology (ICT) because the use of computers, Android phones and other electronic devices became the major means of disseminating information. Librarian provided online services to students and researchers. Information was disseminated to the users through online databases and Emails. Libraries made effective use of social media platforms such as Facebook, blog, WhatsApp and others to create awareness on the precautions on how to avoid further spread of the pandemic. However, the traditional use of libraries was greatly reduced. Libraries' users could not visit libraries to make use of the physical resources due to COVID – 19 restriction, the number of people that visit the library were greatly reduced. The libraries' opening hours were reduced and there was a great reduction in the use of prints resources in the libraries. Due to the widespread of the pandemic the use of the vaccine was introduced to help curtail the spread of the virus.

RECOMMENDATIONS

Having highlighted the impacts of COVID – 19 on the use of libraries in Nigeria, the following recommendations are given to step up the use of libraries in case of any other pandemic.

1. Since the use of digital resources and online services will continue to grow in every facet of the business, there is a need for libraries to develop more Wide Area Network (WAN) for the reception of the internet in Nigerian libraries.
2. Libraries should digitalise all their resources and made them available and accessible to users.
3. The library management should provide adequate training and development to their staff on the use of computers and internet tools to function digitally in this era of COVID – 19 or any other pandemic that way occur.
4. The library management should subscribe to an online database and Librarians should be motivated through packages that will cover the cost of subscriptions.
5. The physical resources like the library building, the shelves and the prints materials should be fumigated to avoid the spread of the virus.
6. The use of the coronavirus vaccine should be adopted to curtail the spread of the virus among library users.

REFERENCES

- [1] Abubakar, B. M. (2011). Academic Libraries in Nigeria in the 21st Century. *LibraryPhilosophyandPractice*.ISSN1522-0222. <http://www.webpages.uidaho.edu/~mboiin/abubakar.htm>.
- [2] Agim, E. C and others (2020). Librarians' use of social media in disseminating health information on COVID-19. *International Journal of Research and Review (ijrrjournal.com)* 7 (7). Accessed 18 March 2021.
- [3] Asif, M. and Singh, K. K (2020). Trends, opportunities and scope of libraries during Covid-19 pandemic. *Indian Journal of Library Science and Information Technology*, 5 (1). Accessed 18 March 2021.

- [4] AstraZeneca, (2021). Update on the safety of COVID-19 Vaccine AstraZeneca [news release]. <https://www.astrazeneca.com/content/astraz/media-centre/press-releases/2021/update-on-the-safety-of-covid-19-vaccine-astrazeneca.html>. Accessed April 15, 2021.
- [5] Bhati, P. and Kumar, I. (2020). Role of Library Professionals in a Pandemic Situation like COVID-19. *International Journal of Library and Information Studies*, 10 (2): 33-48. Accessed 18 March 2021.
- [6] Ganiyu, O. Q. and Oluwafemi, A. I. (2016). Social Media Use by Librarians for Information Dissemination in Three Federal University Libraries in Southwest Nigeria, *Journal of Library & Information Services in Distance Learning*, DOI: 10.1080/1533290X.2016.1156597
- [7] Gilbert, P. and Allison, D. (2004). Vaccination and Immunization. In: Hugo and Russell's Pharmaceutical Microbiology, Edited by Stephen P Denyer, Norman A Hodges & Sean P Gorman 7th ed. Massachusetts: Blackwell Publishing company, PP.138 – 151.
- [8] Huo, X. and others. (2016). Knowledge and attitudes about Ebola vaccine among the general population in Sierra Leone. *Vaccine*. 34(15):1767–1772. DOI: 10.1016/j.vaccine. PubMed CrossRef Google Scholar.
- [9] IFLA (2020). *COVID-19 and the Global Library Field*. Accessed 21/03/2021 from <https://www.ifla.org/covid-19-and-libraries>.
- [10] Ilesanmi, O., Afolabi, A and Uchendu, A. (2021). The prospective COVID-19 vaccine: willingness to pay and perception of community members in Ibadan, Nigeria. Published online, doi: 10.7717/peerj.11153. Accessed April 18th, 2021.
- [11] Ishtiaq, S. M, Sehar, N. and Shahid, A. (2020). Information Dissemination during Covid-19 and Lockdown: The Role of University libraries of Sindh, Pakistan. *Library Philosophy and Practice (e-journal)*. 4280. <https://digitalcommons.unl.edu/libphilprac/4280>
- [12] Ladan, A. Haruna, B & Madu, A. (2020). COVID19 Pandemic and Social Media News in Nigeria: The Role of Libraries and Library Associations in Information Dissemination. *International Journal of Innovation and Research in Educational Sciences VOL. 7(2) ISSN (Online): 2349 – 5219*. Accessed April 18th, 2021.
- [13] Mehta, D. & Wang, X. (2020). COVID-19 and digital library services – a case study of a University library. *Digital Library Perspectives*. <https://www.emerald.com/insight/2059-5816.htm>.
- [14] National Digital Library of India (2020). COVID-19 Lockdown not to affect your study. Study through National Digital Library of India. <https://ndli.iitkgp.ac.in>
- [15] Neog, S. (2020). Library Services through Social Media during Lockdown due to COVID-19 with Special Reference to University Libraries of Assam. *Library Philosophy and Practice (e-journal)*. 4262. <https://digitalcommons.unl.edu/libphilprac/4262>.
- [16] Nigeria Centre for Disease Control. (2019). <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html>
- [17] Nigeria Centre for Disease Control. (2020). <https://ncdc.gov.ng>
- [18] Nigeria Centre for Disease Control. (2021). <https://covid19.ncdc.gov.ng/> Nigeria Coronavirus Disease (COVID-19) Health Protection Regulations 2021. Available online.
- [19] Oche, N. A. (2021). Observance of COVID 19 Protocols and Effective Use of Library Resources and Services in the State Universities in North Central, Nigeria. *American Journal of Information Science and Technology*. Vol. 5, No. 1, 2021, pp. 12-18. doi: 10.11648/j.ajist.20210501.12
- [20] Ojaka, D. I. and others (2011). Community perceptions of malaria and vaccines in the South Coast and Busia regions of Kenya. *Malaria Journal*. 2011;10(1):147. doi: 10.1186/1475-2875-10-147. PMC free article PubMedCrossRef Google Scholar

- [21] Ola, B. A. and others (2020). Covid-19 in Nigeria: Implications for management of related co- morbidities, prevalent public health challenges and future epidemic preparedness. Proceedings of the National Academy of Sciences.
- [22] Olajide, O. and Adio, G. (2017). "Effective Utilisation of University Library Resources by Undergraduate Students: a case study of Federal University Oye-Ekiti, Nigeria". Library Philosophy and Practice (e-journal). <http://digitalcommons.unl.edu/libphilprac/1503>.
- [23] Onifade, F.N. (2020). Library Services during COVID-19 Period: Federal University of Agriculture, Abeokuta Experience, *International Information & Library Review*, DOI: 10.1080/10572317.2020.1834247.
- [24] Rafiq, M and others. (2021). University libraries response to COVID-19 pandemic: A developing country perspective. *The Journal of Academic Librarianship* 47.102280. www.elsevier.com/locate/jacalib
- [25] Reopening libraries in COVID 19 pandemic, (2020). challenges and recommendations. *IP Indian Journal of Library Science and Information Technology*, 5 (1): 16 -23. <http://doi.org/10.18231/j.ijlsit.2020.004>
- [26] AstraZeneca, (2021). Update on the safety of COVID-19 Vaccine AstraZeneca (news release). <https://www.astrazeneca.com/content/astraz/media-centre/press-releases/2021/update-on-the-safety-of-covid-19-vaccine-astrazeneca.html>. Accessed April 15, 2021.
- [27] World Health Organisation (2020), Novel *Coronavirus–China*. <https://www.who.int/csr/don/12-January-2020-novel-coronavirus-china/en/>.
- [28] World Health Organisation (2020), Coronavirus diseases 2019 (COVID 19), situational report – 66, 28th March 2020. <https://www.who.int/docs/default-source/coronavirus/situation-reports/20200328-sitrep-66-covid-19-situation-report.pdf>
- [29] World Health Organisation (2020). Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases: interim guidance, 2 March 2020. <https://apps.who.int/iris/handle/10665/332339>
- [30] World Health Organisation (2020). Modes of transmission of the virus causing COVID-19: Implications for IPC precaution recommendations. [who.int/health-topics/coronavirus](https://www.who.int/health-topics/coronavirus). <https://www.who.int/health-topics/coronavirus>
- [31] World Health Organisation (2021). COVID-19 vaccines shipped by COVAX arrived Abuja, on 2 March 2021. <https://www.afro.who.int/news/covid-19-vaccines-shipped-covax-arrive-nigeria>.
-