



Trends **in** **MODERN** **LIBRARIANSHIP**

Editors

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LIBRARY BUILDING AND FACILITIES IN THE COVID-19 PANDEMIC AGE: THE NIGERIA EXPERIENCE

INTRODUCTION

The origin of the meaning of the word library has been traced to the Latin word "liber" meaning "book". Based on Latin interpretation, the early professionals saw the library as a place where important records of human ideas were organized, processed, stored and disseminated to users for the purpose of posterity and preservation from human and non-human damages (Babafemi & Otonekwu, 2019). Library is defined as a collection of resources in a variety of formats that is organized by information professionals or other experts who provide convenient physical, digital, bibliographic, and intellectual access to information users with the mission of educating, informing, and entertaining a variety of audience (George 2010). Also, a library could be described as a collection of information materials (both prints and non-prints) processed, organised and stored for the purpose of reading, consultations and research. There are different types of libraries such as public library, academic library, school library, specialized library and national library. The prime objective of any library is to provide access to information for the library clientele. Library can be a building, a room or rooms containing collections of books and non-books for the use by a specified patron or the generality of the society. Regardless of the types of library, building is an essential requirement for successful library services and safety of the collections, comfort of users and library staff. The library building is a structural design erected for the storage of library collections, hosting of various categories of users and library staff. According to Jakovlevas-Mateckis et al. (2004), the process of planning library buildings revolves around the intersection of architecture and library sciences, each of them with its theoretical and philosophical level. Planning is essential in all human activity, any individual, organisation and government establishment that fails to plan is bound to plan to fail. Library as an organization must have a solid plan on matters related to library building and facilities. A good plan facilitates fast and steady achievement of library missions and goals. Planning is a deliberate, well-coordinated, and a preferred manner of action that yields a target result. A plan is the reality pushed into the future. A summary of the current activities in the library with a critical assessment of what the library does, obvious needs, and the direction that can be achieved.

Library planning could be described as a careful assessment of stakeholders needs in line with the statement of library mission, goals and objectives. Planning is an on-going process that is dynamic and no plan is perfect. The library building must be planned by key stakeholders such as librarians, management representatives, and designers such as architects. A successful building plan would enhance an excellent library design. A library building design is expected to be managed or assigned to experienced architects, who must have acquired experiences in library building design with the good references of past executed projects. A good building plan with a well architectural design would promote effective utilization of library facilities.

Library facilities mean those open spaces and facilities operated by the library. Library facilities could be described as amenities and services available in the library. Similarly, Dewe (2012) defined library facility as any facility owned or leased which is directly managed and operated by the library. According to Hahn (2019), library facilities do not include public right-of-ways such as sidewalks, roads and boulevards, laneways or facilities rented in accordance with the community and event space rental policy. There are strong relationships between library building and library facilities. The library

building houses the collections that are maintained by library staff. Also, there is a connection between staff, facilities, and collections. It can be concluded that any decision made by library staff at every stage of the library operation will have a reflection on library service that would affect the facilities that house library collections. The pandemic nature of Coronavirus Disease (COVID-19) has called for an urgent approach that could bring improvements on the library building and facilities, so that library users can effectively study, access information, and conduct research in a secured and comfortable terrain. All hands must be on deck, with high collaboration and teamwork among the various building committees and professionals that are involved in library building construction. Rather than threatening the traditional concept of the library, the current wave of Covid-19 has brought transformation that would compel the integration of new information technology, which serves as the catalyst to change the library into a more vital and critical intellectual centre of life. Building new libraries or expansion of existing ones and even remodeling can be a discouraging task; however, the required task must be done to accommodate information users, library staff and facilities. Therefore, it is imperative to examine the library building and facilities in the Covid -19 era.

The Requirements of Library Buildings

The library building is an essential asset and management of the library is expected to carry out community analysis first, thereafter, defining its long-term goals and objectives. In addition, the necessity for additional space must be determined. Library building must be designed and built in such a way as to accommodate any change in library structure and services (Ugwuanyi et al. 2011). The building programme of the library defines the specific needs of the library in both quantitative and qualitative terms. The building programme harnesses the thinking of the library director, the library board, the library staff, and the community based on prime purpose, scope, and function of the library. Moreover, the building programme is expected to emphasise the need for the library building to be flexible, to enable adequate plan for future developments. Library functions and spaces should be able to make provision for expansion and contraction as needs develop or diminish. In addition, the existing and future technologies should be projected. Computerization, miniaturization, electronics, and other factors are already in play and will continue to develop. According to Dahlgren (1987) this has implication for the building's structure; its heating, ventilating, and Air Conditioning systems (HVAC); its power, lighting, electronic, and communications systems, as well as the ergonomic needs in planning spaces and equipment. The following are basic requirements of the library building:

- 1. Good site and provision for expansion:** All libraries need convenient locations. High volume traffic and noisy, prone to flood or fire sites are not good for any library. According to Anura (2017) the fundamental factors needed to be considered are: accessibility to users, adequate space to accommodate the area/size of the building, safety from predictable disasters. Library users' views may be solicited for more ideas before embarking on library building. Sufficient space for library building is germane. A suitable site is best identified through consultation with a land surveyor, librarian, and the town planning department.
- 2. Right place and the right arrangement:** Before the right place and arrangement can be achieved there must be a library building programme to facilitate criteria for the assessment of the proposed library design and selection of the right place. The suitable place must be selected for the library building, a place that is secure, less noisy, not the area prone to flood (Dahlgren et al., 2009).
- 3. Floor strength:** Library materials, especially books are heavy, which requires a solid and firm ground to withstand book shelves. According to Jensen (2002) libraries are usually designed to hold a minimum of 150 Pounds (68.01 Kg) of contents ('live load').

4. **Pleasant acoustics:** An ideal library room should not transmit sound easily to prevent compromises of library users' confidentiality. Libraries that reverberate or echo are unpleasant to occupy.

5. **High quality light:** Good lighting is germane in any library, and should comprise a combination of natural lighting, overhead lighting and table lighting (Dugan, 2014). Libraries need bright light, even, low glare lighting. However, there must be careful control of lighting in the library. With the current pandemic situation, libraries should obtain library furniture with built-in lighting to improve the patron's involvements. In addition, many shelving units also come with lighting features that make it easier to find and see displayed books. The use of lighting in the library is specifically designed to control glare. This can be achieved by using reflected up-light and by bouncing all light of white ceiling. Among good specifications include (a) fluorescent fixtures using 5-foot, T-5 or T-8 tubes with a Colour Rendering Index (CRI) of at least 85 and a colour temperature of 3500[°] Kelvin (b) electronic ballast, (c) strip fixtures directing 100% of light upwards, (d) fixtures placed to provide at least 60 foot candles of illumination at the table top. Among things to avoid are recessed down lights (can-lights), skylights and tasking-lighting.

6. **High quality Heating, Ventilating, Air-conditioning (HVAC) Systems:** The HVAC must meet the current standard for air exchange and effectiveness of the library operations in Covid era. Library staff should keep the meeting room comfortable when it has a reader (carrel), 20 users and when it has 100 library users. Humidity in the library is not expected to exceed 50%. In an exceptional case of an old building where condensation for humidification can be a problem in very dry weather, humidity should not fall below 30 percent. This is necessary because relative humidity changes as temperature fluctuates. HVAC systems are designed to lower the temperature at night, failure can lead to destructive levels of humidity if they do not include humidity sensors. According to Güneş and Zaybak (2008) if temperatures are lowered from 70 to 60 degrees Fahrenheit, with the adjustment of 10 °, the moisture content of the air will not change the relative humidity.

7. **Provision for work place and staff:** Adequate provision for the staff work area must be made. All staff work areas need provision of computer equipment and peripherals, plus two-way access to outside resources. In addition, the Internet, local area, and wide-area networks and other online resources must be provided. Data transmission considerations should be part of the planning of this area. According to Jensen (2002) the formula for work areas is: To estimate the square feet of space needed for staff work areas, multiply the number of work areas by 150 square feet.

8. **Provision for future expansion:** Library management should provide a spacious area for the library for future expansion. The current situation of Covid-19 demands for more space to avoid body contact among users and staff. Most libraries run out of place sooner, this calls for construction of separate buildings for the future growth of the library.

9. **Good sightlines:** As part of security measures, the library requires a good sightline for librarians to see the far areas of the library from the service desk. The easiest ways to maintain good security in the libraries is to provide good sightlines. In an effort to deliver the next possible sightlines, a number of libraries have been designed with stack aisles (passages) radiating from service desks like spoke of the wheel. Recently, the best way to improve sightlines is through internal windows and glass walls.

10. **Pleasant internal arrangement:** Libraries are meant to do anything possible to encourage users to stay in the library to consult staff, read and make use of computers and as well as to socialize with other library users.
11. **Parking lots:** A good library is expected to provide good parking space for their library users. Off the street parking should be discouraged, the first rule of thumb is that your parking lot areas should be as large as floor areas of your library.
12. **Provision for after-hours of the returns of library materials:** Libraries should provide a wide variety of returning bins at strategic locations of the library. This will encourage returning of books and recordings when the library is closed. Returning slots can also be built into the wall, but receiving bins must be in fireproof spaces.
This practice must be encouraged at the era of Covid-19 to reduce human contacts and such bins should be fumigated at interval period.
13. **Inexpensive maintenance:** Library building should not be extraordinarily difficult and expensive to maintain. Keep your life “simple model” should be adopted by avoiding light fixtures you cannot reach. Also, the walls surface that is hard to clean should be avoided.

After basic requirements of library building are met, the next line of action is library building design. The design of a library building should consider the efficiency of space and place to accommodate the current shift from closed access to open access in this modern day librarianship (Ugwuanyi et al., 2011)

Library Building Design

The construction of any building will normally involve the clients, an architect and contractors and library staff inclusive. The building design must be done by an expert called an architect. The actual building design starts when an architect is hired. The final decisions must have been taken by all stakeholders (Contractor, Librarians, Library Board of Trustees, staff members, architects, interior designers, consultants, the town planning unit, and the representative of the immediate community) on location and size of the library building. The creation of a library building is the result of co-operation of all stakeholders. There are general steps to be followed in library building design (DeHart, 2002) as indicated:

1. Preparation of plan design: The schematic plan of the building will be done at this stage
2. Preparation of pilot plans and design development: The preliminary plan and design subjected to change as development is on going
3. Preparation of specifications and working drawing: The final stage of drawing where necessary specifications must have been embedded and comes up with working drawing.
4. Advertising and receipt of bids. The building committee would make an appropriate advertisement and receipt of bids on necessary building materials that would be needed.
5. Bonding process: All necessary bonds procedures and implementations would be followed with strict compliances.
6. Award of contracts: The building committee and other stakeholders would award contract to a competent library building expert who must have showcased the evidence of successful completion of similar project in nearby libraries.
7. Actual construction: The stage where construction of the library building commences.
8. Acceptance of performance: The building committee and other professional experts do the on-site-assessment to ensure usage of good quality materials and total compliance to the stipulated guidelines.

All stakeholders in the building planning committee should include the following: Trustees, librarians, staff members, consultants, architects, interior designers, community members and town planning councils. The next sub-section discusses the roles of the library committee.

Roles of Library Building Committee

According to Govender (2007), the committee of the library building planning is saddled with following responsibilities:

1. Determine the need for a new building: Things must be done with need. The need which must be identified and justified must be guided by the committee.
2. Draw necessary supports through provision of leadership campaigns to create awareness and secure support for the library building project.
3. Responsible for the appointment of the building committee and assigned tasks.
4. Site purchase and obtaining of financing for the project
5. Provide approval for a written building programme
6. Approve preliminary and final architectural plans
7. Solicit and approve bid documents
8. Approve all contracts and any change orders to the contract

Furthermore, the committee acts as a link between the management and the construction team. The library planning committee is meant to facilitate the communication between the two parties and settle conflicts, if any between contractors, client, architect, and consultants. The committee keeps the management informed of any issue or progress being made in the library building construction process. Also, the library building committee should hire a building consultant and architect. Library building is an enormous task that consumes time, effort and huge funds to get off the ground (Witten et al., 2009).

This assertion suggests that no one desires to put in the time, effort, and capital only to fail. To guide against failure, the five essential questions must be answered.

The discussion on library building consultant will be centred upon "five" questions:

1. Why do we need consultant? 2. How do you select consultant? 3. At what stage of the planning should consultant be selected? 4. What do you pay consultant? 5. What consultant should do?
- These activities would be followed by the selection of an architect.

The Architect for the library building

The library's environment has to be developed systematically, following the principles of urban planning, architecture, engineering, design and library sciences (Jakovlevas-Mateckis et al., 2004). According to Jakovlevas-Mateckis et al. (2004) the importance of the development of an attractive library by all means calls for good architectural, functional, and quality services delivery. Architect plays a major role that would yield quality architectural design for the library building and the standard process must be followed in the selection or appointment of architect.

The Procedure for selection of an architect for the library building

The following steps must be taken in hiring an architect; the library board should solicit for applications from qualified professionals and rank them by preference. Thereafter, enter into negotiations with the top choice architect, organise personal interviews with the person or firm that interests the library board. It is good to consider the past experience of the architect, as well as the architect's personal philosophy. Also, Head (2016) reiterated that the planning and design of library learning spaces requires librarians and architects to have a deep familiarity with all end-users and what they need to be productive as learners.

Similarly, the architect could offer advice to his client on the choice of the contractor. This assertion reiterated by Ocholla and Tanui (1997) that architects can offer advice to the client on the nature and type of contractors and consultants needed to form the design team for the construction process. The fees should be discussed before the final agreement is reached. Failure to reach an agreement with the architect of the first choice, the library board enters negotiations with the next candidate. In summary, architects have to work very closely with the client to ensure that the outcome of the building suits the requirements of the client (Ocholla&Tanui, 1997). Architects would ensure that all necessary factors are considered to yield quality architectural design for the library building. Building a library is not a child's play, and it requires dedication from all stakeholders to work hard and deliver a standard library building that stands the test of time. According to Ishola (2020) the library building is expected to have a useful life span of about one hundred years or more and a projected capacity for another twenty-five years. Any error in construction either the wrong location of toilet or walls, of poor ventilation and vulnerable staircase and exits should be forestalled and prevented. Otherwise, the library staff and readers would suffer the defects for many years to come. Hence, it is essential to consider many factors before the construction of the library.

Factors to be considered for library building design

According to Dugan (2014) the following factors determine library building design:

1. **Convenience.** The accessibility of the library is germane. Library users should have easy access to the library. For example, the children's area should have appropriately sized shelving, tables, and chairs, adjustable computer tables. This would make computers easy to use for users of all heights, as well as while sitting or standing.
2. **Lighting:** Good lighting is essential in any library. This should comprise a combination of natural lighting, table lighting, and overhead lighting. Today's library furniture should come with built-in lighting to deactivate any virus that could cause epidemic disease. Also, many shelving units should have lighting features that make it easier to find and see displayed books and to provide heat that would kill any virus. This is necessary at the present era of Covid-19
3. **Comfort.** The best libraries are those that have good atmospheres, and are attractive and inviting. Although every library will have a little different layout, it is vital that comfortable seating areas, designed for both individuals and groups, are included in the library design.
4. **Security:** Belongings of library users and library materials must be kept under security watch. Both library staff and users should have a sense of security to life and properties.
5. **Technology.** Libraries need easy access to technology. Carrels and desks should be equipped with the necessary outlets and ports, and there should be plenty of computer tables throughout the library to meet user need.
6. **User-Friendliness.** Today's libraries must be easy to use by patrons. The information desks must be strategically located to reduce user stress, assist to orientate the visitor, and ensure that there is always a place to ask where to locate library materials and library facilities. Library building planning and design of facilities are basically devoted to preservation, security of materials, and efficiency of the library collection services.

Library facilities

Library facilities as described by Ajegbomogun and Diyaolu (2018) are library items purchased and utilised for effective delivery of library services. Similarly, Sivathaasan (2013) considered library facilities as electronic media like, Radio, Television, cable satellite, the Internet and many others, that give widest publicity to events, objects, discoveries, scientific findings, new products, and new services. Iwhiwhu and Okorodudu (2012) identified library facilities as including reading tables, chairs, toilet facilities, library space, fans, air-conditioners, lightings, ventilation, flooring, the catalogue, restaurant facilities and photocopiers.

Other facilities according to the authors are bookshelves, entrance and exit facilities, notices boards, parking space, computers, carrels, periodical racks and circulation desks. Moreover, Musa and Dangani (2007) considered photocopiers, indexing and abstracting services, bindery and Internet facilities as library items that complement library resources and services usage and improve library patronage. Library facilities play a vital role in the achievement of library operational objectives that ensure provision of access to information. Ajegbomogun and Diyaolu (2018) stressed that availability of library facilities have strong influence on knowledge sharing and would enhance services delivery and job performance of librarians. Also, library facilities not only add value to the range of services delivery, but also motivate staff to perform duties effectively while encouraging patrons to use catalogues, databases and real time interactions to meet academic and research needs. As a result of high relevance and great importance of library facilities, researchers and librarians continue to demand for free availability and accessibility to library facilities (Oyedipe et al., 2019). Similarly, several studies (Kwadzo, 2014; Kumar & Heathcock, 2014; Chaubey&Manglik, 2017) reported that librarians in advanced countries yelled for the provision of library facilities to make library resources and services more fulfilling to users.

This assertion shows that library facilities are prominent and relevant among the respective user communities, especially in university libraries. It is imperative that university libraries must continue to contribute to individual, national, and community by accommodating resources, including human resources, services, and facilities.

Studies (Mahadevan & Kumar, 2020; Ishtiaq et al., 2020) stressed that designed buildings and facilities are highly essential for libraries to continue to fulfill the purposes and render services associated with libraries. Good and suitable university library buildings and facilities clearly express and indicate functions and services performed by such libraries. Ishtiaq et al. (2020) reported that academic libraries from developing and advanced countries continue to leverage on the strength of library facilities, ICT, and resources to offer a range of improved library services among patrons, particularly, during the COVID-19 pandemic.

The History of Coronavirus Disease (COVID-19)

A new disease that spread like wild fire nearly enveloped the world over. The disease tagged new Coronavirus Disease (COVID-19) pandemic broke out in Wuhan, China in December 2019 (Zhu et al., 2020). Covid-19, a highly contagious disease that has invaded every country of the world, affected individuals and killed millions of people worldwide. At the beginning of the Covid-19 crisis, most African nations including Nigeria focused their response on either return or sending assistance to their students who were trapped in Wuhan. This plan changed as the Covid-19 pandemic started spreading all over including African countries and Nigeria as a country was not exempted. Nigeria confirmed and recorded her first case of Covid-19 on February 27, 2020 and the index case was an Italian who had just returned to Nigeria from his home country (Ifijeh& Yusuf, 2020). The spread of Covid-19 started from the initial cases of imported transmission in Nigeria that led to recorded community-transmission cases. This situation led to thousands of confirmed cases of covid-19 in the country. According to Van Doremalen et al. (2020), the coronavirus can live for hours and several days on surfaces and how long it survives depends on the material the surface is made from. See the Table 1.

Table 1: Coronavirus Live on Surfaces

Materials	Duration for the survival of Coronavirus
Metals: doorknobs, jewelry, silverware	5days
Glass & ceramics: drinking glasses, measuring cups, mirrors, windows	5days
Wood: furniture, decking	4days
Plastics: detergent bottles, subway and bus seats, backpacks, elevator buttons	2/3 days
Stainless steel: refrigerators, pots and pans, sinks, some water bottles	2/3days
Papers, cardboard	24hours to 120 hours
Copper	4hours

Source: (Brunilda, 2020)

Series of efforts were put in place to clamp down on the spread of the virus; the first response of the Nigerian Government was the closure of all schools, including universities beginning in March 2020. Successively, all students ranging from undergraduates to postgraduate students had to leave their university campuses. **Globally, as of 10:00am CET, 26th March 2021, there have been 124,871,140 confirmed cases of COVID-19, including 2,744,543 deaths, reported to World Health Organisation (WHO). As of 24th March 2021, a total of 456,822,613 vaccine doses have been administered (WHO-Covid-19 Dashboard, 2021).** According to Nigeria Centre for Disease Control –NCDC (2021), Nigeria has 162,275 confirmed cases, 2,036 deaths, and 149,882 recovered as at 26th of March, 2021. Governments, leaders of agencies, institutions and organisations, medical personnel, health workers, businesses and other categories of citizens believe that the economy and society must run. As a result, universities are now jettisoning traditional teaching methods and concentrating on electronic and online forms of education. University libraries are also shifting to online resources and services in order to continue to remain relevant to user communities. Developed university libraries have adjusted to new normal by becoming virtual (Winata et al., 2020). Before the emergence of Covid-19, different types of library facilities have been utilised to satisfy personal, collective and organizational benefits by university library personnel and patrons. For instance, library reading tables and chairs have been utilised to encourage readers sit in the library to read their own or library resources. The patrons used book shelves and periodical racks that contain, display and preserved print resources (textbooks, reference materials and serials) for consultations. Photocopying machine is used by patrons to make copies of printed materials more available to users. Awana (2007) stressed that functional photocopiers proved effective for reducing theft and mutilation of library books to the barest minimum. Library catalogues have served as an index to library holdings. Library patrons, however, consulted the catalogues to gain easy access to needed print and make retrieval possible, easier and faster than when books are not catalogued (Ebiwolate, 2010). Similarly, bindery facilities ensure that damaged or mutilated books are repaired and returned to circulation. Furthermore, the information and communication technology (ICT) tools, such as the computer, laptop, printers, scanners, the Internet and so on are important facilities that allow Internet services, literature search and other forms of electronic browsing. These facilities allow library personnel and users to seek information and knowledge quicker, faster, and cheaper and at convenient times and places. The facilities will compel patrons to visit libraries either physically or virtually or using a blend of the two to access subscribed information resources and other kinds of information. Physical visits of users to libraries imply that users might need to spend quality time in the library either sit to read using chairs, tables, shelves and consulting textbooks or serials or could be computers and other ICT resources. Using libraries physically might at times involve interactions and communications between library users and library staff; between and among staff and could also be user to user interactions. With the reality of covid-19, the various forms of these interactions and communications (for instance, reference services, referral services, readers' advisory services and so on) are no longer possible or being reduced to barest minimum and users are being monitored in libraries. This is also applicable to use of print collections and hardware facilities, for example, catalogue cards, computer, ICT hardware, circulation desks and so on. The present pandemic nature of covid-19 has brought modifications or restrictions at variance with the theories of library and information science where library information resources and media are meant for free use regardless of age, sex, location, and race. Libraries, whether, school, public, national, research or university are storehouses of knowledge and information and must be able to bring information, knowledge and human beings together (Awana, 2007). In essence, libraries are established to provide, organise, disseminate and preserve right materials to meet information and knowledge demands of respective user communities.

The COVID-19 concept described situations where in-person resources and services interactions may no longer be possible or preferred. Essentially, physical collections and facilities may become barriers to access while collaborative study is shunned at to pave way for social distancing in buildings that now safely accommodate half the people they used to (Cox, 2020). The current expectation is how to make library print collections, physical facilities including computer resources and ICT hardware more utilised and highly relevant in the Covid-19 era. The pandemic has brought in an immediate, direct and personal sense of urgency to library and information science (LIS) professionals. The pandemic nature of covid-19 has compelled LIS professionals in the country to engage in brainstorming activities and creativity on how to develop, maintain, and sustain innovative collections. In addition, there is transformation in library services and facilities, particularly, ICT facilities offer to all stakeholders in university libraries. Library facilities are expected to complement the resources and services offered to satisfy information needs of students, lecturers, researchers, and other community members at the comfortable place, convenient time, and in the right formats. Covid-19 pandemic has brought changes to the manner and approach in offering and delivering library services to information users. The new normal thus calls for the need from various categories of libraries to continue to offer qualitative information services and products that strengthen relationships with patrons using digital online applications and ICT facilities. Social distanced library is now considered the ultimate antithesis of the modern day librarianship (Cadmus, 2020). Social distanced library (including services and resources) is considered the approach for university libraries to work towards attaining and sustaining new normal within the university system. As the novel virus has impeded day-to-day activities of educational institutions, universities have retreated into the virtual online environment. Despite closures, library patrons have continued to request for specific kinds and forms of information, ranging from general health information, Covid-19 related information, feeding habits to community-based information, particularly, university library users (Mbambo-Thata, 2020). University libraries in developed nations have been able to overcome the pandemic nature of Covid-19 by leveraging on the capabilities of ICT facilities in a number of ways. These other facilities which academic libraries in the developing country can take a leap from include the following:

1. **The use of swipe card:** A swipe card is a plastic card bearing magnetically encoded information which is read when the edge of the card is slid through an electronic device. The use of this card by library patrons will enhance access to library resources and facilities. Libraries should deploy use of cards to minimise physical contact.
2. **Use of take-out facilities:** Facilities, such as, curbside delivery of library books and remote book lockers enable users to request and pick the requested resources up with minimal contacts with library personnel and other library users. These services also help schedule how the borrowed books will be returned with minimal or no contact at all.
3. **Scanners:** Libraries scan within copyright guidelines and deliver requested print information resources through document delivery services using electronic mails of requested users.
4. **Drone and shipping facilities:** Libraries with the financial means have deployed drones to deliver books to designated addresses of users that have booked or requested for print resources. Some libraries having shipping facilities have shipped books to residential addresses of requested users.
5. **Work or book delivery vehicles:** In addition to drones and shipping facilities (or where they are not affordable or practicable), libraries need to make use of delivery vans and buses to deliver books and other library resources to the designated addresses.

6. Web applications, seminars and tools: Libraries have developed series of webinar applications, for instance, Zoom, Go to Webinar and so on, train patrons on usage of library applications, e-resources and e-services along with the already existing e-mails, chat facilities, chat bots, phone services, text and other social media avenues (Pitts et al., 2019). Library orientation and information literacy training have been transformed from face-to-face and one-on-one modes into electronic, online and hybrid forms. Other forms of virtual initiatives, such as research boot camps, library instructions, research/scholarly services as well as empirical and data management services have been anchored using available webinar applications and tools.

7. Quarantine facilities: Studies have shown that the coronavirus stays on different surfaces (papers, woods, plastics, metals, and so on) for between 4-6 days (Hammett, 2020; Kampf et al., 2020). It is expected that the amount of infectious virus on any contaminated surface will reduce significantly after this period.

As a result, to prevent contact and spread of the virus, libraries now quarantine returned book items for about 7 days before charging borrowed books in and charging out to other users. Quarantine facilities used, such as, book drops, cardboard boxes, and book trolleys can be easily wheeled by library staff to dedicated quarantine arena. Libraries should develop quarantine procedures that are most applicable and suitable to their libraries and users.

8. Signage: Libraries should provide visible or clear visual signage on physical distancing and hygiene to staff, library users and volunteers at the entrance and also throughout the library accommodation including the various divisions of libraries. Information on the signage can also be made available on the libraries' websites, e-mails and on phone services of libraries.

9. Enhanced hygiene facilities: In libraries, hygienic conditions have usually been accomplished such as sweeping, dusting, cleaning curb webs as well as washing and mopping with disinfectants. With the emergence of Covid-19, there is the need to improve with adequate facilities, such as, automated hand washing, and sanitizing facilities at entry and exit points, security check points, reception desks, staff areas, multimedia units, study areas, OPAC areas and delivery cabinets/ vehicles should be made readily available and accessible. Library personnel, volunteers, library users and visitors should be mandated to use these automated facilities when entering and leaving libraries.

10. Use of self-service Information Technology (IT) equipment: Libraries should concentrate efforts in buying and using self-service IT equipment like desktop computers, laptops, photocopiers, scanners, printers, telephones, and so on and should have the touch-points of these facilities cleaned after each use. If possible, library staff may be designated to these facilities to limit numbers of users handling the touch pads. Preferably, bookings can be done to control the use of these facilities. Regular cleaning, especially, after each use and regular disinfection practices should be followed. Strict compliance to this can help put the virus at bay. Twice daily disinfection will also be effective at controlling and preventing the virus.

11. Internet and online facilities and engagements: Some advanced libraries have addressed the problems of access, space, usage, lack of engagement and collaboration, and restriction on indoor group gathering to conduct online events and programmes using new platforms. As an illustration, the Library of Congress in September, 2020 held the National Books Festival as an online event (Adler, 2015).

Libraries online events and programmes have helped reduced physical interactions as well as reduced the challenge of inadequate access.

12. Library websites: Libraries websites should be re-designed to allow for integration of more electronic resources, services, and scholarly databases that allow for regular updates of information (Ballantyne, 2009). E-books, e-journals, e-reference materials, streaming media, and scholarly databases with citation should be displayed. Also, Covid-19 related information and updates should be readily available and accessible on libraries websites. Library services, such as, Ask-a-Librarian, Chat with Us, Meet with Us, and interlibrary loans should be displayed on library website. In addition, research help, public safety, Off-campus access, bookings, resource lists, FAQs, returning items, library instructions, online resources, opening hours and so on should be incorporated into libraries websites. Library course instructions can also be added to libraries websites.

Conclusion and Recommendations

Currently, every organization including libraries are experiencing a period of changes to survive the Covid-19 pandemic diseases. Library has to change itself according to the needs of modern information society using the right building and facilities that are Covid-19 regulatory compliant. Library building and facilities play an essential role in the provision of access to information for library users. If libraries are to remain dynamic, the spaces that define them and the services they offer must continually stimulate users to create new ways of searching and utilising library facilities regardless of any pandemic situation. There is no question that almost all the library functions being planned for today will need to be reconfigured in the not-too-distant future. The library management must be capable of adapting to the reality of Covid-19 pandemic nature. If this is to happen, library facilities must be properly housed in the library building to ensure adequate provision of library services to all categories of information users. On this note, the following recommendations are offered:

1. Social distance among all stakeholders in the library must be embraced.
2. Online library services to library users should be improved upon by library management.
3. The control of natural light and hygienic practice should be embraced in the library building.
4. The placement of core areas for stairs, toilets, and heating, ventilation, and air conditioning must be checked on a regular basis to ensure adequate utilisation of library facilities by information users.
5. To reduce your chance of catching or spreading the new Coronavirus, clean and disinfect common surfaces and objects in your library every day.
6. Avoid close contact with library staff and users who are sick and they should stay home.
7. The planning of the library building should encompass future expansion and the space provision for a future extension must be provided for in the master plan (Ishola, 2020).

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