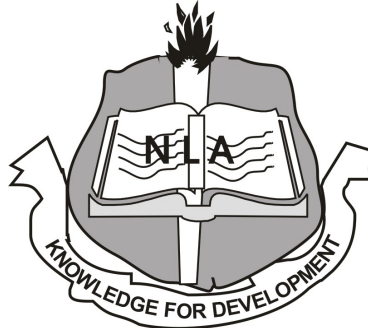




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## **MAKING THE MOST OF A CAREER IN ACADEMIC LIBRARIANSHIP: A REFLECTION**

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### **ABSTRACT**

*This paper presents methods of and approaches to mentorship are highlighted based on past experiences, and the place of formal and informal mentoring in academic libraries stressed. The article revealed that a lot could be achieved if mentors and mentees are committed to learn to be creative in practice, service and scholarly communication. The study provides information on what could be done to be a successful academic librarian. In the light of the experiences documented in this article, some recommendations were made.*

### **Introduction**

The mandate of academic librarians differs from those of other librarians significantly because of the nature of their work, the community they serve and most importantly, the call to publish. Their involvement in all these require mentoring, particularly for those who are new on the job. On the issue of mentoring on competency, career growth and leadership development in the library profession, Samson (2021) has this to say, “older professionals in librarianship must put mentoring programme to work in order to help groom the future leadership, foster professional development and promote the image of the profession to sustain competency, effectiveness and timely delivery of library services.” The mentoring processes will put new entrants to the profession on track, and help them to get it right from the beginning. Mentorship should also focus on scholarly communication that would add value to the profession, and should be based on the challenges encountered in daily work.

Undoubtedly, academic librarians who are new on the job may have questions and challenges as they progress on the job. However, the mentoring programme will go a long way to answer most of the questions and proffer solutions to the challenges. Malecki and Bonanni (2020) revealed this in their work that “academic librarians new to the profession, or seasoned with mid-career changes, have questions and challenges, as they progress in their professional careers”. That is what the mentor-mentee relationship seeks to achieve in this article. It was after I became an academic librarian that I knew the opportunities that librarianship has to offer, particularly career opportunity, and later the responsibilities that come with it. The word of Tanner (2010) aptly captures it:

Librarianship has much to offer in terms of personal satisfaction and career opportunities. I enjoy the freedom, the challenges, and the opportunity to be a lifelong learner this career provides. However, with freedom comes responsibility and the knowledge that your future is in your hands. This can be daunting a realization, whether you are just beginning your career or have



been working at it for a while.

Tanner's article entitled "Making the Most of your Career" highlights six areas that are germane, if one is to succeed in academic librarianship. I intend to use five of the tips to illustrate my career progression in academic librarianship over the years, to achieve the purpose of the article. The purpose? One, the article is intended to widen our understanding concerning academic librarianship-what it takes to succeed. Two, the purpose is to change our attitudes and thought pattern about the practice of librarianship in the academic terrain and the path to the top. The article affords the author the opportunity to offer some practical advice based on over three and a half decades of experience in the university library system. In brief, the article gives strategies for success, covering almost every aspect of the practice of librarianship in academic area; building up oneself for leadership position through the mentoring processes, both formally or informally and tenure of academic librarians.

### **Background Information**

I entered the library profession with a diploma certificate from the Ahmadu Bello University, Zaria in 1978. I got my first job a month after completing the diploma course- and began serving as a cataloguer (under an experienced cataloguer) at the National Library of Nigeria headquarters in Lagos. All I really wanted at that time was to get started somewhere before moving to a satisfying work-in academic library where I would pursue further studies. My sojourn in the world of academic librarianship started at the University of Ilorin in 1988, after I acquired a degree in Library Science.

When I started my job, I was concerned with making a difference in a unit or department of the library I found myself-both in service and research activities. As a new academic librarian, I resolved to focus my research attention on problems encountered in my daily work with a view to finding solutions to them. As I grew in the profession, the article by Fennwal (2008) revealed something similar to my position stated earlier above. The author says, "the idea of scholarly projects should be to some extent from the daily work of a Librarian, who is involved in planning and developing services, programmes and operations, and making decisions related to them."

The author's view became a strong motivation that strengthen my position to pursue research that would be firmly based on practice; every idea of research that would come to me would relate to what I am doing. This is my 'mantra' to date! Riggs (2004) lends his voice to this by saying that, "research in LIS is becoming more oriented toward current practices. Practicing librarians are writing more how we did it good in our library pieces. These best practices articles are displacing publications based on research and intellectual inquiry." The article was published seventeen years ago!

### **Practical Experience**

This section presents Tanner's (2010) tips with a view to applying them to my personal experience and advise new librarians on the way forward.

#### *Expect to Enjoy your Work*

As you take up your job in academic librarianship, the first expectation you should have is to enjoy your work. This has to do with job satisfaction-serving users with enthusiasm, bringing up innovations and building relationship across campus – among staff and students. Job satisfaction is key-a strong motivation to achieving success. When job satisfaction is not there, achieving the aforementioned will become difficult.



You have to demonstrate this not only when you have contact with users but in doing your professional job. The enjoyment you derive will be an impetus to face challenges, find answers to issues as they arise, and with the ultimate goal of contributing to the profession.

Let us dwell more on this with some practical situations. I have the opportunity of working in virtually all units of the library; serial, acquisitions, documents, circulation, reference and as I progressed to management position my experience on leadership skills widened. Because of the enjoyment derived in doing my job, I always sought how I could do things better and a search of the literature always proved rewarding. Then, it was a manual search through abstracting journals, particularly the *Library and Information Science Abstracts* (LISA). The examples that follow give a practical illustration of how job satisfaction and interest in my job helped me to investigate issues relating to my day-to-day activities.

**Article 1: *Periodical Retrenchment at the University of Ilorin Library***

- i. Due to financial constraints the university library was forced to make a difficult decision to cut its spending on periodicals.
- ii. The article examined the processes of the cancellation exercise because there were complaints from a few heads of department that they were not carried along.
- iii. The exercise created an awareness among academic staff to the value and cost of journals acquired in the university library and the huge sum of money it takes from the library's book vote.
- iv. The article appeared in *Library Review*, Vol. 39, No. 2, 1990.

**Article 2: *Reinstatements of Retrenched Journals at the University of Ilorin Library***

- i. The World Bank extended credit for the purchase of books and journals based on the agreement reached with the federal government.
- ii. The retrenched journals were to be reinstated
- iii. Procedures for cancellation revisited
- iv. Effect of cancellation discussed
- v. The reinstatement and factor affecting it
- vi. Made some observations which included errors as a result of pressure to meet the deadline given by the National Universities Commission
- vii. The article appeared in *Library Resources Technical Services* (LR&TS), Vol. 4, No. 3, 1996

**Article 3: *Problems of Collection Development in a Nigerian University Library before the World Bank Loan***

- i. The study used acquisitions statistics and other relevant sources to determine the problems that had faced book acquisitions program at the university of Ilorin before the World Bank Loan
- ii. Government fiscal policies had great effect on the free flow of books into Nigeria.
- iii. Inadequate funding was also identified as a problem common to Nigeria university libraries and has led to the World Bank credit facilities to replenish library books.





iv. The article was published in *Library Herald*, Vol. 33, No. 1-2, 1995.

**Article 4: *A Survey of News Magazines Users at the University of Ilorin Library***

- i. The use of the news magazines at the University of Ilorin Library attracted my attention, as faculty, staff, and students request for their use frequently.
- ii. It examined the importance of the collection to users.
- iii. The study reveals the extent to which the news magazines supported research and course work at the university.
- iv. The article was published in *Serials Review*, Vol. 26, No. 2, 2000.

**Article 5: *Shift Work in Nigerian Academic Libraries***

- i. There were continued complaints from staff working shifts at the university of Ilorin Library
- ii. The author was the Circulation/Reference Librarian
- iii. The study gathered information about the views of the staff concerning shift rotation, how they cope with problems caused by shift rotation.
- iv. The study revealed the need to consider environmental conditions that will make them comfortable
- v. The article appeared in *Library Management*, Vol. 22, No. 4/5, 2001.

**Article 6: *Job Rotation in Academic Libraries: The Situation in a Nigerian University Library***

- i. Received bitter complaints from library staff as Chairman of welfare committee that earlier and current managers of the university library have not applied the policy of job rotation
- ii. Reports a study of staff opinion concerning job rotation in the library
- iii. The article appeared in *Library Management*, Vol. 21, No. 2, 2000.

**Article 7: *Library Staff Welfare Committee: Its Role in Library Management in Nigeria***

- i. The author was chairman of the committee
- ii. The article examined the role of the committee in the running of the library
- iii. The study provided answers to some management problems
- iv. The article appeared in *Library Management*, Vol. 19, No. 8, 1998.

**Article 8: *Training in the Use of e-resources in Academic Libraries: One University's Approach***

- i. Examined the training methods used in the library over time to determine its effectiveness
- ii. Examined also the content of the training to determine its adequacy
- iii. Revealed areas that needed to be strengthened
- iv. Published in *Library Hi Tech News*, No. 6/7, 2020.



**Article 9:** Retro-conversion Project in a Nigerian University Library: Setting the Parameters

- i. The author was secretary to the committee that set the parameters
- ii. The article discusses the essence of retro-conversion programme, the problems and peculiarities identified and suggestions offered.
- iii. The article was published in *OCLC System and Services*, Vol. 13, No. 3, 1997.

**Article 10:** *The Burden of Change in Academic Libraries in Nigeria*

- i. Was acting university librarian at the time the library management undertook self-study of the structure on ground in the library with a view to having a simple, more flexible and workable structure.
- ii. Planning and procedure were discussed to enable similar libraries in this part of the world learn certain things from what we did.
- iii. The article appeared in *Gateway Library Journal*, Vol. 12, No. 1, 2009.

I have limited myself to only ten of over thirty articles that are directly related to daily activities in order not to bore readers. Clearly, this practical experience has shown that research that applies to daily service and operations have positive impact on the library system. As librarian, more of what we do daily in the library can fit neatly into what we publish. A cursory look at the above articles revealed that nine of them, though of local origin and experiences appeared in foreign journals of international repute. In the word of Martel (1985), “the increasing complex nature of library activities require research. There is the need to engage in creative activities through research to the dramatic changes being encountered in the knowledge society.”

*Time Management:* Aside the library work, librarians engage in committee work both within and outside the library, faculty board meeting, admission committee, examination committee among others. Keep a daily record of these activities and use them to build your dossier. Find time to be involved in everything that would boost your career. Do not turn down invitation from team and committee that would add value to your career. Join some, but protect your time and join only those that further your goal. I received an invitation from my state library association (NLA, Kwara State Chapter) to become the internal auditor. A year after, I became the secretary to the association and the Joint Meeting of Heads of libraries in Kwara State/Executive Committee, Kwara State Chapter.

At the university of Ilorin library, the University of my Primary Assignment, I was called to serve as chairman of library staff welfare committee with over 110 memberships between 1997 and 2002, again, at the library professional meeting I was unanimously appointed as coordinator, Library Academic staff seminar (1998-2002). These various services offered opportunities for valuable lessons that became beneficial at leadership position later in life; however, I ensured effective management of my time in order not to fail in my publishing obligation. As you acquire this experience, also try and keep your CV up-to-date with trainings, presentation and articles.

*Find a Mentor Early in the Process:* Mentoring, according to Sullivan and Stueart (2010) “is a process in an organization for career development as well as work place learning and benefits.” To this effect, a mentor serves as a counselor, coach, role



model, teacher and so on. You need one early in the process of building your career in academic librarianship. And let me quickly add that mentoring may come informally, however there is a formal mentoring. On formal mentoring, (Robbeloth, Eng & Weiss, 2013) say formal mentoring is valuable, and added emphasis should focus on creating formal mentoring programs to make them more widely available. Added to this is the fact that mentoring apart from sharpening and sustaining professional practice, it equips young librarians for more challenging tasks ahead of them (Ubogu, 2019). I was fortunate to have two wonderful mentors, who helped me to discover both professional and leadership skills I have and develop new skills to meet the challenges ahead of me on the ladder of career development.

One, there was an assignment to move all library books in the science, technology, engineering and related programmes and the shelves from the mini campus of the university to the main campus-a distance of about 14 kilometers. The University Librarian directed that I should coordinate the activities, using the library assistants and messengers in the university library. I did not wait to ask why the difficult assignment was given to me among the three para-professionals in the library. During the course of carrying out the assignment that spanned over a period of two months (because we were to arrange all the books and other resources on the shelves), I learnt a lot about their attitudes, emotions, and their thoughts, not only about the management but the library profession.

I said earlier that it was a difficult assignment, yes. It involved working with over twenty-five junior staff with different temperament, the stubborn and the level headed. More importantly it was a manual labour. There were issues that triggered a shouting match between us in the process of getting the task accomplished. There were occasions where uncomplimentary comments and exaggerated accusations were made about me. Let me note that I was not only coordinating their activities, but physically involved in the manual labour. Being a leader can be a very humbling experience. It was a successful task that made me a genius among the staff and earned me commendation by the library management. Surprisingly, I became an informal leader of junior staff, and a liaison staff between them and the management. I later realized that the above process was a mentoring process that became useful when I attained the leadership position in the university library. Fashola (2020) points out in her study that librarians have a lot to benefit from mentoring, and that reading aids knowledge transfer and equip mentees for leadership roles among others.

The lesson to learn here is simple, do not turn down assignments, and accept responsibilities even when they don't make any sense to you. I once assigned the teaching of the Use of Library course to a new librarian who turned it down because there was no remuneration attached and I allocated the course to his colleague who counseled him to always accept responsibilities. He came back to tender his apology and was given the opportunity to teach the course. Two years after, he went for an interview for a higher position, and was offered the appointment because of his two year' experience he had acquired in teaching the *Use of Library* course.

Two, mentoring on the job also came directly from the same university librarian that gave me the task discussed above. This was after ten years! He decided to move me to the acquisitions unit as librarian II and was directly responsible to him. This caused some disquiet among the library professionals because all other units were being supervised by senior academic librarians, and there were a few who were not



heading any unit. I enjoyed the mentoring of the university librarian until he retired two years after. To be a successful academic librarian, you must be ready to 'swim or sink' as it relates to publishing. Along the line, I had a unit boss who mentored me unconsciously at the beginning, he always assigned some research related duties to me but later he became my direct mentor, giving advice on how to get published in peer reviewed library journals. He gave practical advice, using some of his rejected and revised articles.

Where there is no formal mentoring as it was in our time, feel free to find a good mentor for yourself, and be a mentor as you mature. I was mentored, I became a mentor to a few others, and my relationship with them proves that a good mentoring relationship never grows old. When I disengaged my service from a particular university ten years ago, and moved on to the position of university librarian, one of my colleagues gave me a gift, and inside I found a note. The excerpt:

You are to me a selfless boss, a godly mentor, a resourceful coach, a friend indeed, and a loyal ally. You taught me the skills that are not written in any book to foster my personal and professional growth. I wish you more fruitful professional and mentoring career.

I still receive encouraging-mail from some of my mentees to date. In the words of Tanner (2010), "if your library doesn't have a formal mentoring program, find a senior librarian who is willing to act in that capacity. And remember that you will have a chance to give back when you're senior faculty"

*Create Time to Write and Think about Research:* Always look for opportunities to present something new at professional meetings, conferences and seminars. There are different ways you can contribute to scholarship. You can even reach out to sister university libraries to hold talks or seminars on areas of interest to such libraries; it could be on service and operations. However, you need to intensify effort on scholarly communications. Henry and Neville (2004) note, "published articles carry weight, when it comes to promotion and tenure. To write interesting paper you will need to read widely." This is an important requirement to succeed in the academic environment.

I have expressed a similar view elsewhere that you need to read wide, even outside librarianship. The literature in other fields could fit in well to your research. I had to cite related research studies in psychology, sociology, organization theory, political economy and management (Olorunsola, 2011). When you have an idea that may not be directly linked to the profession, yet can be incorporated into it, do not hesitate to share the ideas with expert in the area. I have done this a few times.

Whatever you are doing in life, if you lack creativity, it may not appeal to people for long. Thinking creatively is also important in writing publishable articles. You must bring out creativity in the way you craft your topic, the design of the body of your articles, and make the presentation appealing to editors and indeed the readers who are the ultimate audience. Of course, this is part of what editors look for in articles. During the early years of my career, I published a few articles in *Library Management*, a journal in the UK and in my working relationship with the editor, she remarked, "the topic you write about strike a chord in our numerous readers, we will continue to welcome your articles."

In 2014, I contributed a chapter to volume 38 of *Advances in Librarianship* with a broad theme of *Management and Leadership Innovations*. The editors listed possible



topics under the theme for consideration, however I proposed to write on Gossip and Library Management and it was accepted. In the editor's preface to the monographic she writes, "Olorunsola's study of the use and management of gossip in academic libraries is highly useful despite its seemingly geographical limitations. Of this, one reviewer said, that it is one of the most refreshing and interesting papers she has reviewed for *Advances in Librarianship* to date". When you show creativity and ingenuity in your writing no editor would want to push aside your work. Creativity makes a work unique and appealing to editors, let innovation and ingenuity be seen in your work.

When you think of research, you will always have topics to write on. You can build up a list of research topics as ideas come up in your mind. When new ideas came up in my mind, even when I'm in bed, I quickly woke up and add it to the list. Anytime I read the literature, I keep a journal of new things that could be applied to librarianship, that is how to build a reservoir of research topics. Reading wide helps to improve one's research skills and creativity, as you read ideas come up. There is no limit to the type of literature you can read from newspapers to professional newsletters, general interest magazines, business magazines, publications of organizations, library reports and lot more – they are all rich sources of information and ideas that may be useful for research purpose. At a point, Harvard Business Review was my favourite and I have applied some research results in the business journal to library situations, and turned them to articles.

***Remember to Network:*** It is wise to make professional connections and new friends – it is beneficial to professional growth. This can be achieved by attending conferences and professional meetings. You will be able to keep on the latest trends, see old friends, colleagues and meet new people. Don't expect to receive institutional support for conferences all the time. There are occasions I had to sponsor myself. The opportunities to connect with old friends, and discuss issues of interest, and collaborate are always available at annual conferences. I clearly remember a particular occasion that two old and senior colleagues got my attention for over an hour to discuss a research topic and shared experiences which resulted in an interesting paper. When you attend conferences you remain energized and connected to your peers.

I recall the message I received from a professional colleague I never met before, (now a Professor) who read most of my articles. He wished we could meet at any of our professional conferences and we did meet, precisely at the 47th Annual Conference of the Nigerian Library Association that held at Ibadan in 2009. We shared experiences and ideas. Our relationship is intact to date. Nutefall (2010) observes that becoming involved in the community will afford you the opportunity to meet with similar interests. When you are new to an area, meet people and introduce yourself to them, and don't forget to mention your professional interest – they may be useful to you one way or the other. You need the help of people for data collection in a new area, and when you need to have personal interview.

### **Conclusion**

The essence of this article is to encourage academic librarians to embrace mentoring, both formal and informal in their libraries. This is crucial to their success in the ladder of career progression. The article documents the experiences of the author with a view to encouraging new librarians to learn something new. It further provided



the need for those in leadership positions in academic libraries to encourage both formal and informal mentorship in their libraries. Obviously, there would be some challenges in the mentoring process; discouragement would come when there is no appreciable progress or success, particularly in the area of scholarly communication however, challenges will become a thing of the past as time goes on. It is also important to have committed mentors who are eager and willing to see their mentees through and not give up on them. Overall, formal and informal mentoring will strengthen and sharpen the professional life of mentees and leave them better than before.

### **Recommendations**

Six recommendations offered in this section derived from the experiences documented and discussed in this article are as follows:

1. There should be formal mentoring policy in academic libraries to cover all aspects of library work- practice, service and scholarly communication.
2. The policy should lay down procedures to monitor the progress of mentees, in terms of progress, challenges and success.
3. Mentees should be given free hand to choose their mentors.
4. Job assignments to subordinates should be seen and considered as part of mentoring programme, and should be encouraged.
5. Mentees should also be introduced to leadership role by giving them opportunities to supervise subordinates and let them come up with a report thereafter.
6. Every mentee should be encouraged to be a mentor after full mentorship has been accomplished.

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#### **AUTHOR'S PROFILE**



**Mr. Richard Olorunsola** started his career in academic librarianship at the University of Ilorin Library in 1980 as a Library Officer, where he rose to the position of Principal Librarian in 1996 before he moved to Igbinedon University, Okada in 2002 as Deputy University Librarian. He also served as Deputy University Librarian at Redeemers' University for five years before he was appointed University Librarian at Ajayi Crowther University, Oyo in 2011. After his tenure, he became the pioneer University Librarian at Precious Cornerstone University, Ibadan (2018-2019). He is presently the University Librarian, Crown Hill University, Eiyenkorin, Ilorin, Kwara State.



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## **READER SERVICES' OPERATIONAL ENVIRONMENT AND STAFF SATISFACTION IN NIGERIAN UNIVERSITY LIBRARIES**

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### **ABSTRACT**

*This paper takes a cursory look at reader services in university libraries in Nigeria. It x-rays the structure, services as well as the challenges of reader services in Nigeria universities as they affect staff satisfaction. The paper did a review of the past and current scenario of the conditions in which staff of the reader services in university libraries have been carrying out their calling of service provision and noted that situations were precarious most of the times and presently have not improved in any remarkable way. Dimensions of service environment of the staff in this division of the library were identified to include their physical and mental work environments, work tools, staff strength and workload. The paper posits that these variables, if they are not given adequate attention, have the capacity to push back the frontiers of quality reader services provision, due to staff dissatisfaction. The paper recommends such things as appreciation and good staff relations among others as strategies for motivating the staff to be their best in a work environment that is yet far from the ideal.*

**Keywords:** Reader services, Staff satisfaction, University libraries, Operational environment

### **Introduction**

Reader services play a pivotal role in service provision to the user community of any library. This service mechanism is the key to the sustainability of user patronage and by extension, the continuous relevance of the library to its host institution. The Reader services are also known as public services or user services. It is a major service division in libraries and its compartmentalization is very visible in large libraries such as the university libraries. Across the globe, the practice has been to give this aspect of library practice, prominence in terms of staff, space, position within the library building, and other variables, all of which are suggestive of the place of these services in the actualization of the mission of the university library on one hand, and the university's mission/vision on the other hand. Reader services are the totality of services that are provided to users, spanning from reference and referral to circulation





of both print and print services, and serials control. According to Okoro and Bamidele (2019), activities and services which take place in this section are enormous to the extent that they are almost close to the activities of the entire library system.

The university library system is a subsystem of the university and it is incumbent upon the library to constantly demonstrate its support to the goals and aspiration of the institution. University libraries perform the tripartite functions of supporting teaching, learning and research mission of the university. Against this backdrop, two things must come to light: either the university library system is fulfilling these objectives or is not doing so. A number of factors would inform the direction in which the library will tilt, such as the information resources availability, staffing, funding, and facilities; and the most important has proven to be the staff dynamics.

Staff of the reader services in the university library are made of professionals, paraprofessionals and non-professionals. Each category is importantly strategic for the overall success of the reader services sub system. According to Aguolu and Aguolu (2002), the paraprofessional and non-professionals put together are greater in number (about 2/3) than the professionals otherwise known as Librarians. This implies that a large chunk of the work in reader services is done by non-librarians. Staff are deployed to this section with this in mind. However, aside this high ratio of the non-professionals to professionals, is the impact of the service environment on the reader services' staff.

Library environment has been identified as a potential index to the optimal functioning of the staff and even the increased patronage and satisfaction of the library users. The university library environment is the totality of tangible and intangible things, and events capable of advancing or diminishing services provision by staff, and user patronage. According to Iroka and Nzeh (2021), 'the nature or the design of the library environment can have positive or negative impact on behavior of the user towards library use. In the same vein, staff become disenchanted when the condition in which they do service is harsh. University library's operational environment is operationalised to mean the building and physical facilities, work tools, working hours, work load, staff relations, and conditions of service.

These environment variables can in no small measure affect service performance of staff members. A harsh, unattractive and staff unfriendly environment can suffocate, stifle and immensely constrain the most competent staff toward service delivery, leading to low or no staff satisfaction. This in turn may lead to loss of confidence of the university library services by users and then user dissatisfaction. Furthermore, university libraries would be gradually losing their relevance before their host. From the state of affairs of university libraries in Nigeria, this appears to be the case most of the time.

A lot of studies have been done on satisfaction of university library services in Nigeria, but the focus of the works has been principally on user satisfaction (Ifidon, 2000; Aguolu & Aguolu, 2002; Oyelekan & Iyortsuun, 2011; Ossai-Onah, Obichere & Iroze, 2013; Kanu & Okezie, 2020). Study focus on staff satisfaction is scarce. While it is true that the library exists for users and should therefore strive to satisfy their needs, it is pertinent to note that staff satisfaction may be heralding user satisfaction. The reader services staff are isolated for this study for the same and more reasons. However, their remuneration and promotion issues are left out here because such matters are not peculiar to them and are not decided somehow by the library



management. Based on the foregoing, the authors looked at reader services, in relation to the dynamics of the staff's service environment in university libraries in Nigeria.

### **Structure and Services of Reader Services**

Typical of university libraries in Nigeria, library services and operations fall under two major facets- the reader services and the technical services. While the technical service is the 'behind the scene' area/entity, the reader service is in the public domain. They make up the circulation, reference, serials, and non-print services. Basically this entity is responsible for serving users directly. In university libraries, the users are undergraduates and postgraduates/researchers, faculty, non-teaching staff and other members of the university community. The centrality of reader services cannot be overstressed as far as library principles and practices are concerned. Corroborating this, Okoro and Bamidele (2019) describe the reader service as the first port of call when a user steps into the library. They describe it as the window or an index for users' perception of the library; defining its role as the flag-ship of the library. They cited Uzuegbu and Arua who averred that the scope and functions of this department targets to meet the mission of the library; which include knowledge circulation, shelf management, user education project, resource services, current awareness services, security, library guides, record/statistics, readers' inquiry, loan, and so on. They maintain that this department (staffers) can attract or deter users by their conduct.

Taking it further, Carmichael (2013) enunciated the current and future role of the public services staff to include: marketing library services, resources and programmes; engaging in scenario thinking, and increasingly remaining as intermediaries in the information discovery process, among others. Obviously, an unmotivated and unenthusiastic reader services workforce is capable of driving backwards the frontiers of library services. The services can be summarized to include the following: circulation of knowledge, user education, answering user queries, receiving new members, linking users to the global information environment, implementing the university's mission, and image maker of the library.

### **Reader Services and Staff Satisfaction: An Overview**

The Nigerian university library system started with the inception of the University of Ibadan (formerly University College, Ibadan) in 1948 being the foremost university in Nigeria. Their librarian was an expatriate: John Harris. Obviously, this scenario suggested lack of indigenous staffing in the university library at that time. It was only when library schools began to emerge, that many indigenous librarians were trained to staff the other university libraries that started to spring up after independence. Currently, Nigeria has 94 public universities and 99 private universities, bringing the total number to 193 (National Universities Commission, 2022).

Unfortunately, the more the universities increase in number, the more students' enrollment skyrockets; stretching available material and human resources. Scholars have increasingly bemoaned the myriad of problems that plagued the university library system in Nigeria, one of which is orchestrated by user population explosion. According to Ifidon (2000), increase in student population is among the challenges that hinders efficient and effective services to users. Ifidon cited a bloated student enrollment in



Ambrose Ali University then, which was about 400% more than the intended population within two decades of its existence. Fallout of this challenge was inadequate space, seating capacity issues, inadequate information materials and inadequate staff. A situation where according to Ifidon, there was too much to do but with few hands.

Reader services staff do a lot of work: shelving, shelf reading, discharge and charging of books. The junior staff or/and paraprofessionals do all these and are also expected to make reservations for users, pick up consulted books in the reading carrels, arrange them for re-shelving, register library users as well as answer simple user queries. In the face of such conditions, the non-reader services staff rarely help out. Okoro and Bamidele (2019) and Ifidon (2000) condemned the nonchalant and uncommitted attitude of these non-reader services' staff when the tasks is much. This is one of the factors that stirs dissatisfaction among the staff of the reader services. In another vein, scholars report that the university libraries in Nigeria pre-occupied themselves with ownership and conservation of information materials at the expense of service provision (Ifidon, 2000). A situation where the staff merely sat down and watched users go to the shelf, comeback to them and borrow materials while the reader services' staff remained passive (Ifidon, 2000; Aguolu & Aguolu, 2002).

It was feared that if this continued, another service alternative could emerge and users would be drawn away from the university library. Twenty-two years down the line after these observations and prediction were made, we witness their manifestation. Today we have a university user community whose default attention when faced with information need, gravitates towards the Internet. This trend cannot be allowed to continue if university libraries are to remain relevant in the scheme of things. It is high time the library profession had a calculated paradigm shift: from a user satisfaction model/perspective to a staff satisfaction one. This is based on the premise that if the conditions in which staff operate are congenial, the unmotivated staff would be motivated; and those sitting on the fence of service provision would take decisive step towards adopting a sound philosophy of service.

### **Dimensions of Reader Services Staff's Operational Environment**

Operational environment of service provision of the staff members are in different aspects. They include the building, the location of the reader's services area, general conditions of service, and staff/employee relations, salaries and promotion, staff development among others. They are significant because they can impact directly or indirectly and negatively or positively on the goals of the university libraries in particular and the academic institution in general. Irokah and Nzeh (2021) suggested a good measure of some control of these environmental forces to ensure a conducive atmosphere for library operations. Salaries, promotions, and other statutory conditions of services are outside the purview of this paper for reason not far-fetched. They apply to every staff of the library, not just the reader services' staff. The focus of this paper are on the ones discussed below:

### **The Library Building/Physical Environment**

The physical environment of the university library encompasses the library building, the location of the building, the reader service area, allocation of offices to the reader service staff, and the furniture and fittings. It also includes ventilation,



temperature control, noise control, and security. According to Iroka and Nzeh (2021), the physical environment includes the building, the premises, the interior architectural design, information materials, noiseless environment, lighting and ventilation. The authors posit that the location of the building and the environment should include such factors as functionality, especially when the library is taking off with an existing structure.

A cursory look at the building situation of universities in Nigeria reveals a lot to be desired. Many of them are not purpose-built especially the new ones, implying that such buildings were not originally designated as a university. It is either that the institution was a defunct college or institute and was later converted to a university. Any relatively large hall becomes the university library. Fortunately, most of our first and second generation universities and their libraries were purpose built. The issue is not even the building getting old as reported by Nwannekanma and Nkoku (2019) but in the outgrowing of their capacity orchestrated by student population explosion. Buildings meant to accommodate 10,000 students are housing more than 40,000 students (Ifidon, 2000), and the increase continues to date.

Today, proliferation of state universities and hurried establishment (or even announcement) of new federal universities would continue to heighten the incidence of non-purpose built universities and library space allocation. Ifidon (2000) confirms that the state universities are the worse hit than the federal in this regard. The resultant effects are limited space for both material and human resources. Despite several standards (CULNU, NUC, and the Building Standard Guide) that have been put in place to check this problem, the universities rarely measure up with them. Inadequate enforcement of these standards by these bodies has culminated in non-librarians taking upper and lead role in library design and building. This was what Quereshi in Nwosu and Okoro (2007) predicted more than a decade ago, that "if professionally prepared standards are not available, librarians run the risk of having standards made for them by people who lack adequate information for arriving at satisfactory conclusion".

A lot of things indeed clamour for library building space: information resources both print and non-print, users, equipment, fittings, and staff. No staff would be satisfied to work under an environment where space for service and for comfort is a far cry from what they should be. Kanu and Okezie (2020) corroborated this fact when citing Ononogbo who opined that an unattractive library physical environment will not fulfill their purpose no matter the neatness of such library's collection. Speaking on the relationship of satisfactory user services and staff satisfaction, Tinuoye, Omeluzor and Akpojofo, cited in Ranawera and Bodhinayake (2018) aver that an effective and productive library and information services to the patrons depends largely on the staff and that such services are easy to provide when the library staff are satisfied with their job.

### **Staff Strength and Workload**

There are three categories of staff that are deployed in the reader services of university libraries, namely; the professionals, paraprofessionals and the non-professionals. The professionals are librarians. They perform professional duties and are involved in policy making and enforcing implementation. They carry out the user education programme and provide leadership for the other staff categories such as the library officers, the library assistants, the porters, and the security. The



paraprofessionals are the library officers while the non-professionals are the library assistants, porters and other junior staff. The non-professionals' work is routine in nature but very strategic in the library system (Opaleke, 2012). Okoro and Bamidele (2019) observed that the reader services system is very large because it comprises other units like the circulation unit which performs a lot of user oriented-functions. Other units of the reader services are the reference, serials, and ICT. The activities covered by these staff are registration of users, charging and discharging of books, shelving and shelf reading; all reference and referral services, serials management, and ICT services including the electronic library services.

The staff disposition in this section matters so much that if due consideration is not taken on their work condition; the library suffers loss- loss of trust, confidence, and then the readers as well as the sponsors. Ifidon (2000) decried the staffing conditions of reader services in Nigerian universities, lamenting the inadequate number of staff, compounded by the too much work left for the few available hands. The author vividly captures what is usually obtainable in the university libraries' reader services especially for the non-professional staff. These staff perform a lot of duties to the point that it is very glaring they are over worked. Ifidon sadly noted that non-reader services staff are not always willing to help out because they do not see themselves as bonafide staff of reader services. The result is work overload for the reader service staff and this adversely affects user services and the staff in question. Babarinde (2013) reported an overwhelming job stress, in his study on stress among library staff. This agrees with the study of Oyelekan and Iyortsuun (2011), who investigated reader services in a Nigerian university and reported that the reader services were found to be unsuitable and unsatisfactory to users.

### **Work Tools**

Work tools are operationalized to consist of all the resources which the staff use in service provision and the associated tools and technologies that aid in easy discharge of such services. These will include audio-visual resources, information and communication resources, circulation stools, trolley, ladder shelves, service counters that are staff-friendly, library automation and OPAC, security gadgets, alarms, Internet connectivity and information materials. Information materials have been found to have significant relationship with satisfaction of users because users desire current, relevant and quality information resources. The same goes for the library staff who enjoy instruments of service that are in good shape. Fortunately, scholars had reported librarians' interest on acquisition of information materials (Ifidon, 2000; Aguolu & Aguolu, 2002). Oyelekan and Iyortsuun (2011) equally reported indices of sufficient availability of information materials with which the staff provided their services.

The issue however was with the currency of such materials. Thus to a reasonable extent, availability of information materials as a work tool for the reader services' staff has been established. The staff are satisfied with this condition. Though, Ifidon (2000) had reservation regarding this when she referred to it as university libraries 'pre-occupying' themselves with acquisition. Aguolu and Aguolu also reported that it was seen as 'the libraries pride'. These authors justified their reservations concerning much premium placed on information resource ownership. They perceived that, obsession in amassing wealth of information resources was at the relegation of service provision and



user education. Despite this fear, it can be said that university libraries in Nigeria have a soft spot for information materials and have been making tremendous attempt at getting them. The reader service staff can at least breath a fresh air in this area of availability of materials with which to carry out their trade.

Another work tool that affects the disposition of staff towards satisfactory service provision is the ubiquitous Information and Communication Technology (ICT). The large volume of work inert in the reader services can be done with ease and speed using information technologies. Through these service enhancers, reader services routines are automated and even remotely managed such that services such as charging and discharging, reservation, overdue management, user registration, user inquiries, Online Public Access Catalogue (OPAC) can be enabled in the library with or without physical human interface. Ossai-Ugbah and Ogunrombi (2013) rightly described ICT as 'a set of tools that can be used to facilitate access to the entire realm of recorded knowledge not just books'. Similarly, Awe cited in Ossai-Ugbah and Ogunrombi (2013) avers that usefulness of these technologies comes to the fore when it becomes difficult to get results by manual operations due to sheer volume of work. The need to reduce mental and physical exertions in performing services, makes computer and the associated technologies very useful for reader services staff of university libraries.

The experience with university library automation projects in Nigeria is not new. According to Ossai-Ugbah and Ogunrombi (2013), the first university to initiate automation was the University of Ilorin in 1983. The automation of the circulation section was done using the software APPLE 11. Unfortunately, the project suffered a big setback. The author posits that the University of Ilorin's failed attempt was not a lone ranger; similar attempts and failures have been recorded and recurring even at the national level. Early attempts and failures of library automation in Nigeria university libraries included TINLIB automation project for Ladoko Akintola University of Technology, a state-owned university, and the Ahmadu Bello University Kashim Ibrahim Library's attempt. Only University of Jos and University of Ibadan libraries presented good prospects for library automation among Nigerian university libraries then.

In 1994, the National Universities Commission (NUC) came into the scene to standardize automation projects in the Nigerian academic libraries; with the adoption of TINLIB-a library computerization software. The software was installed in 23 Federal universities, with training following the installations. Unfortunately, barely a year after its introduction, the project could not be sustained due to breach of the contract between the software firm and the University libraries and by extension NUC. Little wonder that Ifidon (2000) reported that library automation processes in reader services of university libraries in Nigeria was still at its infancy.

Today, computerization and ICT efforts including Library Apps (Applications) are still being bedeviled by a good number of setbacks such as manpower training needs, non-use of the gadgets, technical problems, space, high subscription fees, low maintenance culture and erratic power supply (Anunobi & Ogbonna, 2012; Yahaya & Kanuba, 2019; Ossai-Ugbah & Ogunrombi, 2013; Obasi, 2012; Aloysius, Awa & Ezema, 2021) This situation would continue to make work unexciting for reader services because of the sheer magnitude of work and users' attention which are involved. In like manner, security personnel attached to the reader services area and the library porters are encumbered with a load of work, sometimes leading to anger and



frustration which may be transferred to users. Their job can be enhanced by the use of security tools such as CCTV, and electronic tagging (Ifidon, 2002), as well as theft detectors.

### **Conclusion**

Reader services in Nigerian universities seem to be at the crossroads, in relation to satisfaction of staff and users alike. A number of factors are glaring, posing as threats to the prospects of a sound reader services. They are lack of adequate funding, over-stretched facilities and staff, management apathy, and non-adherence to standards, to mention but a few. Taking into consideration the centrality of the services of the university libraries to the mission drive of universities in particular and higher education in general, such issues cannot be dismissed with the wave of the hand. Staff matters such as their satisfaction while on duty is as important and as imperative as user satisfaction because user satisfaction hinges on the totality of the library system's health which includes the staff's wellbeing.

### **Recommendations**

Reader services' staff should receive some extra boost because they are strategic to a successful university library system. Appreciation in the best possible way, which may not necessarily cost the university library management any fortune, but would go a long way in motivating these foot soldiers, is an option. Cooperation and collaboration among the entire library staff is a requisite condition for easing stress orchestrated by work overload. Staff and management relations should be cordial. Standards bodies should step up their responsibilities in enforcing standard specifications; while university libraries management should not be reticent in speaking up when violations or non-implementation of these standards become commonplace.

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## **NUTRITION AND DIETETICS INFORMATION NEEDS AND SOURCE PREFERENCES OF NURSING MOTHERS IN EDE METROPOLIS, OSUN STATE**

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### **ABSTRACT**

*Access to timely information is crucial to planning and decision making. Nursing mothers are part of information users that seek for information relating to nutrition and dietetics. Review of extant literature has identified various causes of infant mortality and other health challenges resulting from malnutrition. However, none identified lack of access to timely nutrition and dietetics information as one of the causes. Therefore, this study focused on nutrition and dietetics information needs and source preferences of nursing mothers in Ede Metropolis. The study adopted a survey method as it is the best method to collect data from sample of individuals. Questionnaire was the main instrument used for data collection. The population of the study consisted of 291 nursing mothers. Random sampling technique was used to select 210 sample size from two hospitals, namely: Ede Muslim Hospital, Ede (97 nursing mothers) and Osun State Maternity Health Center, Oja-Timi, Ede (113 nursing mothers). The study found that majority of the respondents need information on balanced diet, multivitamins, food safety and food hygiene, with less attention on adequate diet. Also, oral (face-to-face) discussion with doctors and nurses, family and friends and other nursing mothers were the most commonly used information sources by the respondents. It was also discovered that television and Internet were the most preferred information sources, although not among the most commonly used sources. Also, high cost of accessing information and difficulty in accessing doctors or nurses for information were the two major challenges experienced by the respondents. The study recommends, among others, that there is need for the hospital management to engage nutritionists and dieticians; review the procedures in booking a visit/appointment with doctors and nurses to make such less difficult; need for hospitals to have libraries within their premises and also engage librarians that have adequate knowledgeable of information repackaging service.*

**Keywords:** Information needs, Information sources, Nursing mothers, Nutrition in formation, Dietetics information, Ede metropolis



## **Introduction**

It is a common knowledge that eating nutritious and healthy food is crucial to human development and healthy living. Nursing mothers in Africa generally, face myriads of challenges include coping with high rate of infant and maternal mortality and other health related issues as a result of poor feeding or poor health care delivery system (Olonade, Olawande, Alabi & Imhonopi, 2019). World Health Organization (2021) reported that about one- third of pregnant women in West Africa did not attend antenatal care visits. Antenatal care visits are one of the major sources where expectant mothers can have access to nutrition and dietetics and other health related information from professionals; that may benefit them during pregnancy and even after delivery, when they eventually become nursing mothers (UNICEF, 2021).

Furthermore, Food and Agriculture Organization (2019) reported a rapid increase in undernourishment of West Africans since 2015. Similarly, World Health Organization (WHO) (2013) and Gundersen and Ziliak (2015) linked lack of access to adequate food and under-nutrition to health and nutrition challenges as well as increase in infant mortality rate. It is also on record that large population of Nigerian women and households live in abject poverty (World Bank, 2020). Such low income households may have to ration foods and cut down nutrients and calories in order to save cost. This may result in stunted growth, weakened immune system and development of ailments such as kwashiorkor. To address this, nursing mothers may seek for information that can help them make decisions on what types of nutritional intake to adopt.

Access to timely information is crucial to planning and decision making. Access to information is also recognized by the United Nations as one of the fundamental human rights; because a better informed society is a liberated society (United Nations, 2022; González, 2022). This underscores the important role of information in daily lives by providing the basic nutrients needed to solve many problems. Nursing mothers are part of the general public that needs information on daily basis to take decisions, or plan for certain tasks. Such needs certainly include health information (Ruthven, Buchanan, & Jardine, 2018; Lee, 2018). While health information may be deemed general in that there are various aspects of health, specifically, nursing mothers will require information on what to eat or give to their babies (nutrition) and at what quantity (dietetics) that may not only nourish and develop the body but also fight illnesses.

As a corollary to information needs, information is sought from available sources. More so, proliferation in the use of ICT has given rise to cheaper and easy access to information acquisition and sharing. Although, these may depend on affordability of required digital devices and services: such as smart phones, Internet or data subscriptions, among others. While this may seem plausible, however, it may be difficult for low income earners in rural areas and towns in Nigeria. Also, literacy level is relatively low and out of school children, especially girls, is also high. Also, many homes do not yet have access to Internet and use social media. These may hinder their access to up to date information offered by the Internet, but left with traditional sources like TV, radio and newspapers or other informal channels like friends and families or discussion with doctors or nurses.

## **Statement of the Problem**

Information needs vary from one individual to another, depending on some factors, which may include environmental factors, profession, academic level or the need to know or satisfy a state of curiosity. Consequently, information is sought from various



sources that the information seeker has confidence in and the assurance that such sources will quench the information thirst. Furthermore, nursing mothers are part of information users that seek for information relating to their well-being. Therefore, it is expected that they seek for information on various topics and from various sources.

Also, poor nutrition or diets is a precursor to infant diseases and contributed as one of the leading factors causing high infant mortality rate (World Health Organization, 2021, Ewepu & Enoch, 2022). However, from all the previous studies that have identified various causes of infant mortality and other health challenges, none identified lack of access to timely health information as one of the causes; as access to health information is a preventive health measure (Gutiérrez-Velasco, Liébana-Presa, Abella-Santos, Villar-Suárez, Fernández-Gutiérrez, & Fernández-Martínez, 2021). Information on nutrition and dietetics are needed by nursing mother to identify, among others, the type of food and diets to take to improve lactation, physical and mental well-being of themselves and their wards. However, much is not known about their information needs and seeking patterns, especially as it affects their nutrition and dietetics. While many research abounds on various challenges facing nursing mothers globally, only a few exist on the types of nutrition and dietetics information needs and seeking behaviours, as it affects nursing mothers in developing nations like Nigeria. Also, sources consulted and challenges they faced in acquiring such information have not been empirically identified and found in the literature.

Not having access to this type of information may affect concerned stakeholders in formulating favourable information services delivery policies and may also prevent the nursing mothers from having access to timely information which may, on the long run, lead to increase in infant or maternal mortality rate or other related health challenges. To this end, this study sets out to investigate nutrition and dietetics information needs and means of seeking information to meet those needs among nursing mothers in Ede Metropolis, Osun State.

### **Research Questions**

This study is guided by the following research questions:

1. What are the nutrition and dietetics information needs of nursing mothers in Ede Metropolis, Osun State?
2. From which sources do nursing mothers in Ede Metropolis seek for nutrition and dietetics related information?
3. What are the most preferred nutrition and dietetics information sources used by nursing mothers in Ede Metropolis?
4. What are the challenges faced by nursing mothers in Ede Metropolis in seeking nutrition and dietetics information?

### **Methodology**

This study adopted the survey research design as it is the best method to collect data from sample of individuals (Ponto, 2015). The choice of this method According to The population of the study consisted of all registered nursing mothers from January-April, 2022, in two selected hospitals in Ede metropolis, namely: Ede Muslim (private) Hospital, Ede (128 registered nursing mothers) and Osun State Maternity Health Center, Oja-Timi, Ede (163 registered nursing mothers), both in Osun State. Therefore, the total population of the study was 291 nursing mothers across the two hospitals.



The sample size for the study consisted of 210 nursing mothers that were randomly selected from the two hospitals. A total of 97 nursing mothers were selected from Ede Muslim Hospital, Ede, while 113 nursing mothers were selected from Osun State Maternity Health Center, Oja-Timi, Ede. The selection of the sample size was based on sample size suggestion by Krejcie and Morgan (1970) sample table (See Appendix 1). Also, a self-designed questionnaire was the major instrument used for the study, supported by personal observation and 210 copies of the questionnaire were administered from which 149 (70.95%) were returned and used for the analysis (See Table 1).

**Table 1: Population and Sample Size of the Study**

S/N	Hospital	No of Population	Sample	No of Questionnaire Administered	No of Questionnaire Returned
1	Ede Muslim Hospital	128	97	97	83
2	Osun State Maternity Health Center, Ede.	163	113	113	66
<b>Total</b>		<b>291</b>	<b>210</b>	<b>210</b>	<b>149 (70.95%)</b>

The copies of the questionnaire were administered directly on the respondents by the researchers, who visited the two hospitals on special days dedicated for children immunization, so as to have access to a larger number of the respondents. Also, the researchers assisted some respondents who did not understand English Language to translate the questions into Yoruba Language. The distribution is presented in Table 1.

### **Data Analysis and Results**

**Table 2: Demographic Characteristics of the Respondents**

Age	Frequency	%
16-20	21	14.09
21-30	75	50.33
31-40	46	30.87
41years above	7	4.68
<b>Total</b>	<b>149</b>	<b>100</b>
<b>Qualification</b>		
Primary	21	14.09
Secondary	84	56.37
Higher Education	44	29.53
<b>Total</b>	<b>149</b>	<b>100</b>
<b>Occupation</b>		
Traders	70	46.97
Self employed	45	31.47
Civil servants	22	14.76
Others	12	8.05
<b>Total</b>	<b>149</b>	<b>100</b>

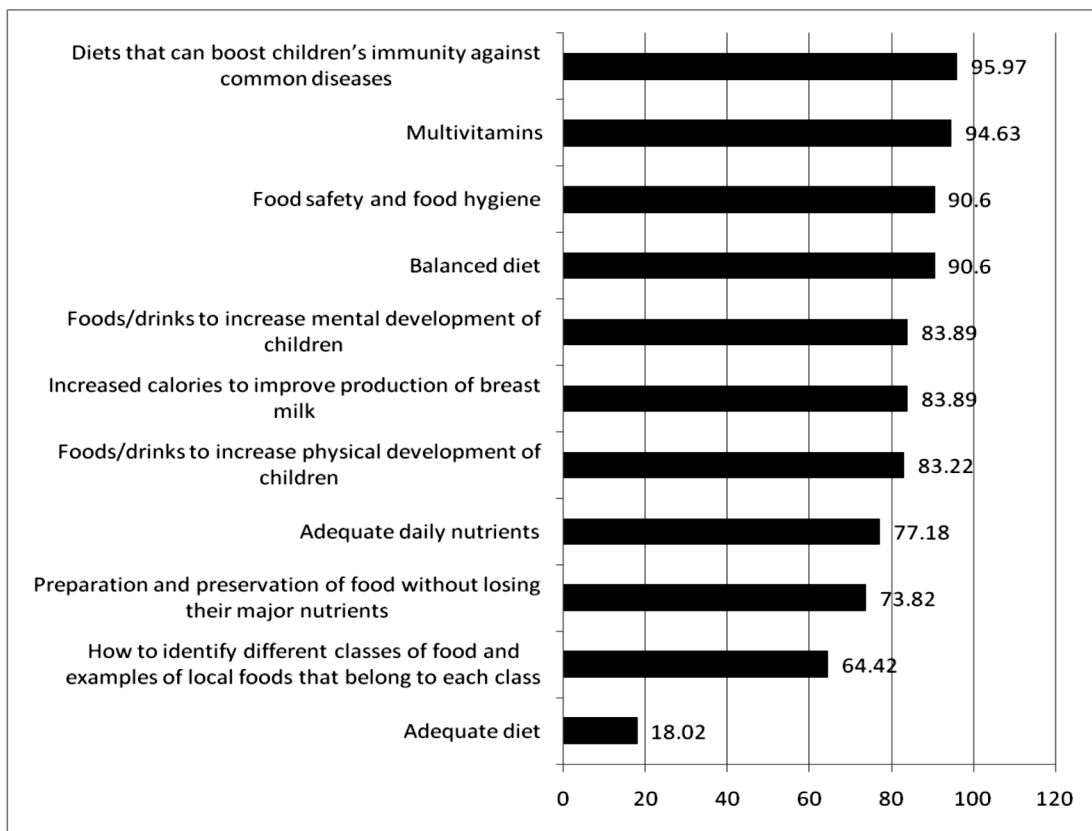
Table 2 shows the demographic distributions of the respondents. It is shown that 21(14.09%) of the respondents are between the ages of 16-20, 75(50.33%) between



the age of 21-30, 46(30.87%) between the age of 31-40, while the remaining 7(4.68%) are above 41years of age. This implies that majority of the respondents are within ages 21-30 while also the 14.09% for those between the ages of 16-20 is also significant. These can be tagged underage or teenage mothers, who are mostly out- of- school girls. Also, in terms of the highest educational qualification of the respondents, Table 1 shows that 21(14.09%) of them have primary school certificate, 84(56.37%) with secondary school certificate, while 44(29.53%) have higher Education certificate. This implies that majority of the respondents have secondary school certificate.

In term of their occupation, it was revealed that 70(46.97%) of them are trader, 45 (31.47%) are self-employed, 22(14.76%) are civil servants while 12(8.05%) have other occupations such as unemployed, students etc. This simply implies that majority of the respondents are traders. This may be due to the fact that Ede is a town with no major industry. So it is expected that most of its dwellers will be traders.

**RQ 1: What are the Nutrition and Dietetics Information Needs of Nursing Mothers in Ede Metropolis, Osun State?**



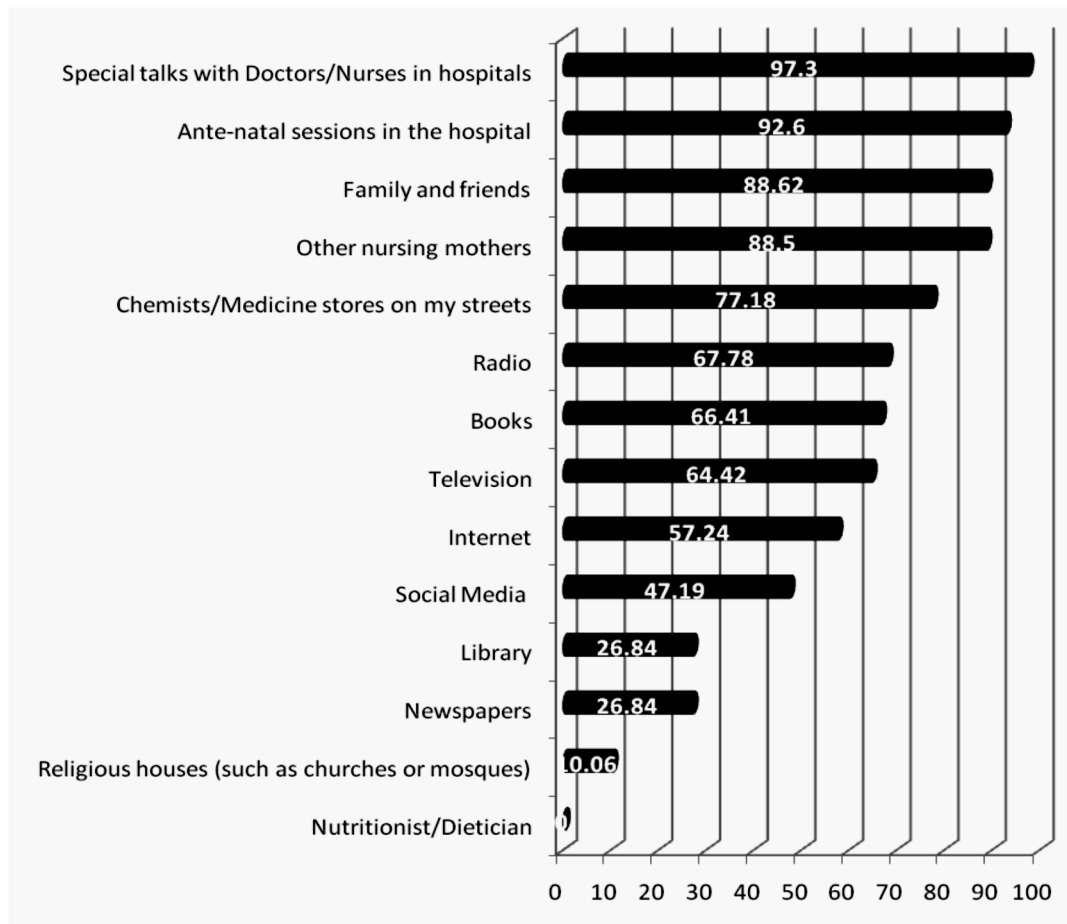
**Figure 1: Nutrition and Dietetics Information Needs of the Respondents (n=149)**

Figure 1 shows different types of nutrition and dietetics information needs of the respondents and that their major types of nutrition and dietetics information needs were on diets that can boost children's immunity against common diseases (95.97%), followed by information on multivitamins (94.63%). Furthermore, some 90.6% also need information on food safety and hygiene, and balanced diet, respectively, while



83.89% claimed to need information on foods/ drinks to increase children’s mental development and food to improve breast milk production, respectively. The least information needs were information on adequate diet (18.02%). This implies that majority of the respondents cared less about adequate diet but only concentrated on balanced diet and food and diets to prevent common diseases.

**RQ 2: What are the Available Nutrition and Dietetics Information Sources Utilized by Nursing Mothers?**



**Figure 2: Nutrition and Dietetics Information Sources Mostly Used by the Respondents (n=149)**

From Figure 2, it is evident that majority of the respondents (145; 97.3%) sought for nutrition and dietetics information through special talks with doctors and nurses in the hospitals, followed by 92.6% through ante-natal sessions in the hospitals. Also, 88.62% sought for information through family and friends while 88.5% claimed through other nursing mothers. Also, it is evident that 77.18% sought for information from street medicine stores, radio (67.78%), and books (66.41%). Furthermore, it is worth noting that only 26.84% claimed to use library and newspapers while no respondents use nutritionists and dieticians. Personal observation of the researchers showed that there is no library within the premises of the two hospitals and no functioning township library in the town. The only available township library and one Islamic township library in the



town are already moribund. Those that claimed to use library may have access to library services elsewhere.

**RQ 3: What are the Preferred Source(s) of Information by the Nursing Mothers in Ede Metropolis?**

**Table 3: Preferred Sources of Information by the Respondents**

SN	Information Sources	Mostly Preferred (%)	Preferred (%)	Not Preferred (%)
1	Television	88 (59.06)	41 (27.51)	20 (13.42)
2	Internet	85 (57.05)	24(16.11)	40 (26.85)
3	Ante-natal sessions in the hospital	85 (57.04)	25 (16.78)	39 (26.17)
4	Special talks with Doctors/Nurses in hospitals	84 (56.38)	52 (34.89)	13 (8.72)
5	Other nursing mothers	75(50.33)	53 (35.57)	26 (17.45)
6	Family and friends	75 (50.33)	58(38.93)	16(10.74)
7	Chemists/Medicine stores on my streets	54 (36.24)	24(16.11)	71 (47.65)
8	Books	52 (34.89)	35 (23.49)	62 41.61)
9	WhatsApp	35 (23.49)	52 (34.89)	62(41.61)
10	Facebook	33 (22.15)	55(36.91)	61(40.94)
11	Religious houses (such as churches or mosques)	26 (17.45)	19 (12.75)	106(71.14)
12	Radio	25(16.78)	64 (42.95)	60 (40.27)
13	Library	18 (12.08)	26 (17.45)	105(70.47)
14	Newspapers	15 (10.07)	18 (12.08)	116(77.85)
15	Instagram	8 (5.37)	26 (17.45)	115(77.18)

Table 3 shows the most preferred sources of nutrition and dietetics information from those available to the nursing mothers. It is evident that majority (88; 59.06%) respondents preferred television. Also, 57.04% preferred Internet and ante-natal sessions, while 56.38% also claimed to mostly prefer special talks with Doctors/Nurses in hospitals. Also, it should be noted that majority (70.47%) claimed not to prefer the library, while 77.85% also claimed not to prefer newspapers. This level of preference is a reflection of sources used as indicated in Figure 2.

**RQ 4: Challenges associated with accessing nutrition and dietetics information by Nursing Mothers in Ede Metropolis**

Respondents were asked to identify various challenges associated with seeking for, and accessing nutrition and dietetics information. Responses are presented in Table 4.





**Table 4: Challenges with Accessing Nutrition and Dietetics Information (n=149)**

SN	Challenges	Frequency	(%)
1	High cost of accessing necessary information	138	92.62
2	Difficulty in accessing doctors or nurses for information	133	89.26
3	Scarcity of needed information materials	98	64.42
4	Lack of access to social media	93	66.41
5	Distance to the sources of information	93	66.41
6	Lack of nutritionist in hospital	85	57.05
7	Lack of access to radio	58	38.92
8	Lack of mobile phones	40	26.84
9	Information are not available in the Language understood	32	21.47
10	Difficulty in accessing information sources and formats	32	21.47
11	Lack of library	30	20.13
12	Lack of access to television	30	20.13

Table 4 shows various challenges associated with accessing needed nutrition and dietetics information by the respondents. It was found that the major challenge in this regard was high cost of accessing necessary information by nursing mothers 138 (92.6%). This was followed by difficulty in accessing doctors or nurses for information 133(89.26%), scarcity of needed information materials 98(64.42%) and lack of access to social media 93(55.41%). Furthermore, some 57.05% claimed lack of nutritionists in hospitals was a challenge, in addition to 32(21.47%) who claimed that nutrition and dietetics information were not available in the language they understood or in desired format. Also, 30(20.13%) claimed lack of libraries and access to television were challenges they faced in accessing nutrition and dietetics information.

### **Discussion of the Findings**

The study shows that a significant percentage of the respondents were between age brackets of 16-20 years and were already nursing mothers. Teenage pregnancy or motherhood is a common occurrence in many of the developing countries in Africa. This may be attributed to high level of poverty and high level of out of school children which made many teenagers got pregnant and start motherhood, when they were expected to be enrolled in secondary or tertiary schools preparing for the future. This is in line with Joel (2021), who noted that teenage pregnancy remains a problem in Nigeria and discovered through a survey that 19.2% of young women aged 15 to 19 in Nigeria had started having children, with 3.1% having given birth before their 15<sup>th</sup> birthday. Also, the finding revealed that majority of the respondents only had primary and secondary education, which is a major concern that they could not further their education. This corroborates Adeyeye's (2020) findings that 72 percent of children, who finish primary education in Nigeria, did not further to secondary school.

The findings also revealed that respondents need different types of nutrition and dietetics information. The most common types of nutrition and dietetics information needed were information on diets that can boost children immunity against common



diseases, multivitamins, food safety/hygiene, and balanced diet while seeking for information on adequate diet received less attention. This is similar to Lee (2018) who found that information on nutrition and dietetics was the third most sought information among nursing mothers in the United States. This current finding is also an indication that respondents concentrated on getting food to eat without recourse to getting adequate diet. This may not be unconnected with high level of poverty affecting most people in the country, in line with the World Bank (2020) observation.

Furthermore, the study revealed that respondents have access to various nutrition and dietetics information sources. The most common type of information sources available to, and used by the respondents are mostly oral (face-to-face) sources, which include special talks with doctors and nurses in the hospitals, anti-natal sessions in the hospital and also, through friends and families; and other nursing mothers. This is also similar to Heather, Della, and Michelle (2014) and Lee (2018) whose findings contradicts that of Quaidoo (2018) finding that online resources were the most popular source used to seek information on nutrition. Furthermore, less attention was on library, social media, newspapers, and religious houses. Also, it is noted that there were no nutritionists/dieticians in the two hospitals. This is in line with the findings of Sutter, Fiese, Lundquist, Davis, McBride, and Donovan (2018) that majority of 93.7% nursing mothers did not have access to nutritionists and dieticians as sources of information in the United States.

The less use of library, newspapers and social media may not be unconnected with the level of education of the respondents as majority of them only had primary and secondary education. One other underlining factor may be social status, which may still be linked to the educational status of the respondents; as those with less education may not be socio-economic buoyant enough to access information from the social media and newspapers. This was attested to under the challenges indicated by the respondents in accessing nutrition and dietetics information as high cost of accessing information top the list. People with less education and income may find it difficult to spend money on things like buying newspapers or data to access information on social media, which results into less access to Internet services (Swenson & Ghertner, 2020; Paul, 2021). Also, despite the facts that many of the national dailies have special columns for nutrition and healthy diets, many of the respondents did not harness this opportunity. This may not be unconnected with their lack of access to library and Internet services, where they can access daily newspapers.

Findings also revealed that television, Internet and ante-natal sessions in the hospitals and special talks with Doctors/Nurses in hospitals were the most preferred sources of information by the nursing mothers. This finding is similar to Megan, Price, Monaghan, Sim, Hunter and Little (2017), Lee (2018) and Ashraf (2021). This is an indication that the respondents preferred information in multimedia formats. However, television and Internet are not among the most commonly used sources. This may be attributed to high cost of having access to the Internet and poor power supply to access television service. Furthermore, the respondents face various challenges in accessing nutrition and dietetics information. The most common challenges are high cost of accessing information; difficulty in accessing doctors and nurses; scarcity of needed information materials and lack of access to social media. High cost of accessing needed information may not be unconnected with high cost of internet data subscription coupled with high level of poverty experienced by majority of Nigerians. Also, as majority of the respondents claimed that doctors/ nurses are the main source of



nutrition and dietetics information available to them, yet they are difficult to access. This may be due to low number of available doctors/nurses in the country, coupled with high level of job demands expected of the available few. This finding is in line with Olawale (2015), Ashraf (2021) and Uwugiaren (2022) that reported low rate of nutritionists and dieticians in Hospitals which has led to patients not having access to preventive health information relating to nutrition and dietetics, thereby making them to use alternative sources.

### **Conclusion**

This study explored the nutrition and dietetics information needs of nursing mothers in Ede Osun State, the criteria nursing mothers consider when selecting an information source, and how source characteristics impact nursing mothers. The findings of this research have provided empirical facts that will be useful for policy makers in the area of information provision for the nursing mothers in Ede, Osun State. Also, the study has contributed to knowledge by exposing the types of nutrition and dietetics information needs of nursing mothers in Ede, Osun State and the challenges they faced in seeking for such information.

### **Recommendations**

Based on the findings of the study, it was recommended that:

1. The hospitals management need to employ the services of qualified nutritionists/dieticians to give related information to the public as it was discovered that such personnel were not available in the two hospitals. Also, there is need for the hospital management to review the procedures in booking a visit/ appointment with doctors and nurses to make such less difficult as it was found out that many of the nursing mothers rely on them as information sources.
2. Also, there is need to emphasize the need for hospitals to have libraries within their premises. This will serve as an alternative source of information in addition to what the doctors and nurses will give. Such libraries should be equipped with multimedia resources as it was discovered that multimedia resources is the most preferred information format indicated by the nursing mothers. Furthermore, librarians to be recruited to manage such hospital libraries should be those who are knowledgeable in information repackaging service and are good at interpreting to Yoruba Language as lack of information in related languages is one of the challenges to accessing information.
3. Also, there is need to revive the moribund township libraries in Ede metropolis and equip them with necessary information resources, personnel and faculties to make them give adequate information to the public. Township libraries will give free access to information as high cost of accessing necessary information was discovered to be a major challenge.
4. Religious houses like churches and mosques can also play a key role in the provision of access to information materials. They can organize seminars where qualified nutritionists and dieticians will be invited to talk to the congregation on related topics. Also, they can buy and keep newspapers and other related information resources where the public can have access to related information. This is because a significant percentage of the respondents claimed that they preferred religious houses as sources of information.



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## **PERCEPTION OF LIBRARIANS ON THE IMPACT OF CATALOGUING AND CLASSIFICATION ON THE USE OF INFORMATION RESOURCES OF ACADEMIC LIBRARIES IN KWARA STATE**

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### **ABSTRACT**

Cataloguing and classification provide means of having easy access to, and retrieval of information. This study investigates perception of librarians on the impact of cataloguing and classification on the use of information resources of academic libraries in Kwara State. It adopts a descriptive survey, as it aims to accurately and systematically describe a population, situation or phenomenon under studying. Purposive sampling technique was used to select 53 librarians across 13 academic libraries in Kwara State. Questionnaire was used to collect data from the respondents and data collected was analyzed by using the Statistical Package for Social Science (SPSS, 22<sup>nd</sup> edition). The result of the findings reveals that users consult library catalogue before accessing library and information resources and that cataloguing and classification as a tool for providing access to information resources promotes library usage, while the challenges associated with that inadequate knowledge of how information resources are arranged, improper shelving of information resources, lack of awareness of cataloguing and classification in the library among others. The study recommends, among others, that professional librarians should be deployed to the readers' service section to help in properly arranging library and information resources, and also ensure that the library move with latest trends to electronic cataloguing system in the library.

**Keywords:** Academic libraries, Cataloguing, Classification, Impact, Information resources, Kwara State, Librarians



## **Introduction**

Academic libraries according to David-West and Wali (2020), are established in higher institutions of learning with the main purpose of supporting and complementing the institution's personnel's information needs, be it on academic, political, economic, socio-cultural, technological etc. The academic libraries primarily perform the tripartite functions of supporting teaching, learning, and research of the host Institution. The need to efficiently provide quick access to information resources that will be effective in serving an institution's personnel necessitates for academic libraries to engage in cataloguing and classification of their information resources.

Cataloguing and classification are different but interrelated activities performed in academic libraries to ensure adequate bibliographic descriptions of information resources. The difference between the two concepts is that cataloguing is a process of preparing a catalogue - which will contain the physical details of information resources – while classification is the art of arranging or organizing information materials based on their common characteristics, and assigning codes as notations to identify, locate and retrieve information resources (David-West & Angrey, 2018).

The interrelationship between cataloguing and classification is that they are both used as representation of information resources, with clear, adequate, and detailed descriptions that can be used as keys to access information resources in academic libraries. The essence of cataloguing and classification is not limited to the academic libraries' users alone; as it also helps librarians in many ways with the most notable one being that it saves the time of librarians in locating and recalling information resources in their libraries. It also shows the strength and weakness of the library collections. With the rate at which technologies are applied in transforming the services of academic libraries, the concern that needs to be still relevant in academic libraries. This, therefore, underscores the need to investigate the perceptions of librarians on the impact that cataloguing and classification can have on the use of information resources of academic libraries in Kwara State.

## **Statement of the Problem**

Cataloguing and classification of information resources in the library are vital to the overall aspects of library operations that enhance adequate bibliographic and subject descriptions of information resources that are available. David-West and Angrey (2018) corroborated this point by submitting that cataloguing and classification skills are major tools in information dissemination because they are access and retrieval tools that allow library users to find information needed for their research works and personal development. However, observations have shown the growing concern on whether librarians actually perceive cataloguing and classification as relevant tools for quick and easy access to, and retrieval of information materials for usage. Based on the foregoing, this study therefore sets out to investigate librarians' perspectives of the impact of cataloguing and classification on the use of information resources of academic libraries in Kwara State.

## **Objectives of the Study**

The objectives of the study are to examine:

1. librarian's perceptions on users consulting library catalogues for accessing and retrieving information resources in academic libraries in Kwara State;
2. librarians' perception of cataloguing and classification as tools for providing access



to information resources for promoting the usage of academic libraries in Kwara;  
and

3. the challenges associated with cataloguing and classification limiting the use of information resources in academic libraries in Kwara State.

### **Research Questions**

This study sets out to provide answers to the following research questions:

1. What is the librarians' perception on users consulting library catalogues for accessing and retrieving information resources in academic libraries in Kwara State?
2. How do librarians perceive cataloguing and classification as tools for providing access to information resources promotes the usage of academic libraries in Kwara?
3. What are the challenges associated with cataloguing and classification, which are limiting the use of information resources in academic libraries in Kwara State?

### **Review of Related Literature**

Cataloguing and classification are concepts in the library that are as old as when the organization of information resources was introduced to the library settings. They are like Siamese twins, because they are done together. Cataloguing describes a book, using some bibliographic details such as author, title, publisher, place of publication, ISBN, etc., to describe a book, while classification indicates subject contents which ultimately place the book in a subject class. Standard classification simply involves assigning a class number to a book that corresponds with its subject contents, following a chosen classification scheme (Nwalo, 2003). Cataloguing and classification are essential means of accessing library information materials, which in the end facilitate their usage. Cataloguing and classification are a gateway to information resources access and utilization and they are means of organizing library resources to ensure that access and retrieval of such information resources are made easy (Akidi & Omekwu, 2019). It is the core of the library profession. Cataloguing and classification require librarians who are intelligent, skillful, resourceful, dedicated, innovative, have initiative, and have a keen interest in the performance of routines (David-West & Wali, 2020).

According to Aina (2004) in Ishola and Zaccus (2015), organizing objects in one's environment, especially those that are used frequently, is common in any human setting. This makes it easier to retrieve the item whenever it is needed; this is the organizing principle. He emphasized the need to organize titles, books, equipment, etc. because it would be challenging to locate a specific object when needed if there had not been any prior organization of the objects. A library catalogue, according to Olanlokun and Salisu (2006), may also be viewed as a communication tool that is delivered in a specific, predetermined order to let a patron know precisely what materials the library has available. Classification is the system of arranging information resources in the library, regardless of their appreciable size (Obiozor-Ekeze, 2015). Classification can be described as the methodology adopted by librarians for bringing together information materials that are of the same subject. The main reason for classifying information materials in libraries is to create access to information materials because the more accessible information sources are, the more likely they are used (Olajide & Yusuf, Madukoma, as cited in Obiozor-Ekeze, 2015).





Cataloguing and classification according to Muhamad, Baffa and Garba (2018), are tools that enhances the easy accessibility and retrieval of library and information resources, the ensure that users of the library especially academic library are not mislead and are provided with their various needs as quick as possible. They further stress that these tools ensure the increase in usage of the library as it ensure that the fourth law of library science is fulfilled "save the time of the library user". The cataloguing and classification provide a basis for the library to communicate to users their available resources and help to easily locate and retrieve them on the shelf (Muhammad, 2014).

Chauhan (2004) opined that a library catalog is arguably the most crucial resource for finding materials in a library. Unfortunately, until recently, its utility was constrained by the way it was physically presented, which was typically a sizable card catalogue or a collection of printed volumes. He emphasized that the development of computers, with their capacity to analyze vast amounts of data and output in a variety of forms, has finally enabled the consumer to access the library from anywhere in the world through the use of online public access catalogs (OPAC). Husain and Asari (2006) argue that the days of sifting through many card catalogue drawers and attempting to conduct cross-references on a subject through several subject-headings put on index cards are long gone. He emphasized how information technology had altered every aspect of the library's environment, including its resources, methods, and services.

Nwalo (2013) compares the lack of digitization of Nigerian libraries to the mindset of a needy parent who is unable to feed her kids but bans them from accepting food from a kind neighbor's home. Information seeking behavior of users in this environment of ubiquitous access merits consideration. Many consumers will acquire and use information without considering the source or the material's legitimacy since they are eager to learn something (Nwalo, 2011). According to Atinmo (2007), before the advent of the internet, the cataloguer ordered the library collection through description and subject cataloguing of materials using standard tools that had been created over a long period of time. These instruments included the International Standard Bibliographic Description (ISBD), Sears List of Subject Headings, and Library of Congress List of Subjects (LCSH), as well as the Anglo-American Cataloguing Rules (AACR2).

Youngok (2006) and Adebayo (2013) asserted that the trend worldwide has demonstrated that information provision and delivery has transitioned from the traditional models to electronic and web-based formats. Traditional collections are being replaced by hybrid ones, if not entirely new ones. This structural transition is not without its difficulties because electronic and digital libraries have their own peculiar traits even though they serve the same functions as traditional libraries in terms of organizing, storing, and disseminating information resources. The volume of information shared online daily, according to Zaid (2008), "presents an unprecedented challenge to the profession in terms of the conventional responsibility to organize, give access to, and preserve knowledge.

### **Methodology**

This study was conducted by using the descriptive survey method; as it is considered suitable for this research situation as this, where the population is heterogeneous and the researchers have to pick a portion of the population that will provide data to represent the research results (Kolawole & Ijebor, 2018). The study population was 53 librarians from 13 academic libraries in Kwara State. Purposive



sampling technique was used because the technique enables the researchers to deliberately select a sample from one or more predefined groups based on how the researchers assessed the samples to be the ones to provide answers that are appropriate for meeting the objectives of the study (Ram, 2018). Questionnaire was the data collection instrument and was administered to the librarians both physically and online (in cases where the respondents are not closed to the researchers). The data collected was analyzed using quantitative analysis, which involves the use of a variety of statistical procedures, including basic descriptive statistics using Statistical Package for Social Science (SPSS) to generate and interpret the variables. To ensure consistency, the primary data was first edited to correct any errors before being coded and analyzed. Mathematical statistical methods, such as simple frequency, percentage, and mean, standard deviation was used in making meaning of the data gathered. Package for Social Science (SPSSv.20) to generate and interpret the variables. Mathematical statistical methods, such as simple frequency, percentage, and mean, standard deviation was used in making meaning of the data gathered.



**Table 1: Demographic Distribution of Respondents**

	<b>Institutions' Libraries</b>	<b>F</b>	<b>%</b>
<b>Name of Institution</b>	University of Ilorin, Ilorin	11	20.8%
	Al-Hikmah University, Ilorin	6	11.3%
	Kwara State Polytechnic, Ilorin	9	17.0%
	Federal Polytechnic, Offa	8	15.1%
	College of Education, Ilorin	6	11.3%
	Summit University, Offa	2	3.8%
	College of Education, Ilemona	1	1.9%
	Lens Polytechnic, Offa	1	1.9%
	CAILS, Ilorin	4	7.5%
	Landmark University, Omu-Aran	1	1.9%
	Kwara State College of Education, Oro	4	7.5%
	<b>Total</b>	<b>53</b>	<b>100.0%</b>
<b>Gender</b>	Male	27	50.9%
	Female	26	49.1%
	<b>Total</b>	<b>53</b>	<b>100.0%</b>
<b>Age range</b>	21-30 years	10	18.9%
	31-40 years	21	39.6%
	41-50 years	16	30.2%
	51 years and above	6	11.3%
	<b>Total</b>	<b>53</b>	<b>100.0%</b>
<b>Academic Qualifications</b>	'O' Level	0	0.0%
	ND	4	7.5%
	HND	8	15.1%
	B.Sc.	27	50.9%
	M.Sc.	13	24.5%
	Ph.D.	1	1.9%
	<b>Total</b>	<b>53</b>	<b>100.0%</b>
<b>Work Experience</b>	1-5 years	15	28.3%
	6-10 years	21	39.6%
	11-15 years	4	7.5%
	16-20 years	6	11.3%
	21-25 years	2	3.8%
	Above 26 years	5	9.4%
	<b>Total</b>	<b>53</b>	<b>100.0%</b>

Table 1 above shows that majority of the respondents are staff of University of Ilorin Library with 11(20.8%). Majority of the respondents are male with 27(50.9%), 21 (39.6%) of the respondents are between the age range of 31-40 years, and 13(24.5%) of the respondents are M.Sc. holder, while 21(39.6%) of the respondents have the work experience of 6 to 10 years.



**Table 2: Users Consulting Library Catalogue before using Information Materials**

Response	Frequency	Percentage
Yes	42	79.2%
No	11	20.8%
Total	53	100.00%

Table 2 above shows that majority of the respondents with 42(79.2%) attests that user consult the library’s catalogue before using the information materials, while 11 (20.8%) rebut that user consult the library’s catalogue before using the information materials.

**Table 3: Cataloguing and Classification as Access Tool for Promoting library usage**

Items	SA		A		D		SD		MEAN	STD. DEV.
	F	%	F	%	F	%	F	%		
Make searching for information easier	41	77.4%	12	22.6%	0	0.0%	0	0.0%	3.77	.423
Guiding users to the relevant information resources in the library	32	60.4%	21	39.6%	0	0.0%	0	0.0%	3.60	.494
Helping in finding and retrieving useful information in the library	35	66.0%	18	34.0%	0	0.0%	0	0.0%	3.66	.478
Saving time in finding information resources	30	56.6%	23	43.4%	0	0.0%	0	0.0%	3.57	.500
Exposing users to other relevant information resources close to their search	26	49.1%	25	47.2%	2	3.8%	0	0.0%	3.45	.574
Brooding the knowledge of users	19	35.8%	26	49.1%	8	15.1%	0	0.0%	3.21	.689

Table 3 shows the result on how cataloguing and classification as a tool for providing access to information resources promotes library usage in academic libraries in Kwara State, as follows: “Make searching for information easier” (mean=3.77) was ranked highest by their mean score rating followed by “helping in finding and retrieving useful information in the library” (mean=3.66), “Guiding users to the relevant information resources in the library” (mean=3.60), “saving time in finding information resources” (mean=3.57), “exposing the users to other relevant information resources close to their search” (mean=3.45) respectively, while “brooding the knowledge of users” (mean=3.21) was ranked lowest, respectively.

**Table 4: Challenges with Cataloguing and Classification Limiting Library Usage**

Table 4 reveals the finding on the challenges associated with cataloguing and classification limiting the use of the library and information resources in academic libraries in Kwara State. “Inadequate knowledge of how the library information resources is arranged” (mean=3.32) was ranked highest by their mean score rating



followed by “improper shelving of information materials” (mean=2.83), “lack of awareness of cataloguing and classification in the library” (mean=2.79), “unavailability of electronic cataloguing system in the library” (mean=2.58), “unavailability of library catalogue be it card or online” (mean=2.51), “improper filing/arrangement of catalogue card” (mean=2.49) respectively, while “inadequate coverage of the subject treated by information resources in the library” (mean=2.43) was ranked lowest.

	SA		A		D		SD		Mean	STD. DEV.
	F	%	F	%	F	%	F	%		
Inadequate knowledge of how the library information resources is arranged	26	49.1%	19	35.8%	7	13.2%	1	1.9%	3.32	.779
Lack of awareness of cataloguing and classification in the library	9	17.0%	28	52.8%	12	22.6%	4	7.5%	2.79	.817
Unavailability of electronic cataloguing system in the library	5	9.4%	28	52.8%	13	24.5%	7	13.2%	2.58	.842
Inadequate coverage of the subjects treated by the information resources in the library	6	11.3%	20	37.7%	18	34.0%	9	17.0%	2.43	.910
Improper filing/arrangement of catalogue card	10	18.9%	14	26.4%	21	39.6%	8	15.1%	2.49	.973
Unavailability of library catalogue be it card or online	10	18.9%	16	30.2%	18	34.0%	9	17.0%	2.51	.993
Improper shelving of information materials	15	28.3%	21	39.6%	10	18.9%	7	13.2%	2.83	.995

**Discussion of the Findings**

The results of the demographic distribution of respondents revealed a greater respondent from University of Ilorin, Library, and a greater number of male respondents. The findings show that a greater number of the respondents are of the age range between 31-40 years. The respondents availed themselves of this opportunity and advance their careers academically, through various professional programs as can be seen in the number M.Sc. holders. The findings show that greater number of the respondents are emerging librarians with (6-10 years) work experience.

On if users consult library catalogue before accessing library and information resources, the findings revealed that academic library users consult the catalogue before using library and information resources. The findings differ from that of Chauhan (2004), which emphasized that the development of computers, with their capacity to analyze vast amounts of data and output in a variety of forms, has finally enabled the



consumer to access the library from anywhere in the world through the use of OPAC.

Also, findings revealed cataloguing and classification as a tool for providing access to information resources promotes library usage and that it helps to make searching easier, helps in finding and retrieving useful information in the library, guides users to the relevant information resources in the library, and saves time in locating information resources, among others. This finding agreed with that of Muhamad, Baffa and Garba (2018), that states that cataloguing and classification are tools that enhance the easy accessibility and retrieval of library and information resources, ensuring that users of the library, especially academic libraries, are not misled and are provided with their various needs as quick as possible.

The findings on the challenges associated with the cataloguing and classification limiting the use of the library and information resources showed that inadequate knowledge of how information resources are arranged, improper shelving of information resources, lack of awareness of cataloguing and classification in the library, and unavailability of e-cataloguing system in the library, among others, were the challenges associated with the cataloguing and classification limiting the use of the library and information resources. The findings disagreed with that of Zaid (2008), which state that the volume of information shared online daily, "presents an unprecedented challenge to the profession in terms of the conventional responsibility to organize, give access to, and preserve knowledge. The findings also disagreed with those of Youngok (2006) and Adebayo (2013), who stated that the trend worldwide, has demonstrated that information provision and delivery has transitioned from the traditional models to electronic and web-based formats.

### **Conclusion**

The organization of library resources is crucial for information retrieval and search in libraries. Users save time, and service delivery is very seamless as a result. A librarian will direct users to the appropriate information after hearing about their needs. Despite the demanding nature of the task, librarians must engage in technical services. Only through sacrifice will we be able to advance society.

### **Recommendations**

The study hereby recommends the following;

1. There should be constant user education to sensitize library patrons on the important of consulting the library catalogue be it manual catalogue cabinet or the Online Public Access Catalogue before accessing the library and information resources to ensure that the are not misled.
2. Library staff should be trained and re-trained on how best to improve on making patrons literature search and retrieval easy by providing relevant bibliographical details in the course of describing the content of an information resources.
3. Professional librarians should be deployed to the readers' service section to help in properly arranging library and information resources, and also ensure that the library move with latest trends to electronic cataloguing system in the library.



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### **AUTHORS' PROFILES**



**Dr. Florence O. Ajani** is the Deputy University Librarian at the Kwara State University, Malete, Nigeria. She is a chartered librarian with profound interest in Knowledge Organisation, Globalisation in Libraries, Reference Services and Academic Librarianship. She is a member of Nigerian Library Association (NLA) and Nigerian School Library Association (NSLA). She holds a B.Sc. degree in Computer Science from University of Ilorin (1997), MLIS (2005) and Ph.D. degree in School Media from the University of Ibadan (2018). For more than a decade, Dr. Ajani has been expanding the frontiers of Librarianship through teaching and research, which have culminated in publications in conference proceedings, seminar papers and journal articles locally and internationally.



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## **PERCEIVED INFLUENCE OF INTERNET-ENABLED MOBILE DEVICES ON ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS IN FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA**

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### **ABSTRACT**

*This study investigated the perceived influence of Internet-enabled mobile devices on the academic performance of undergraduate students in Federal University of Technology (FUT) Minna, Niger State. The study was guided by four specific objectives with corresponding research questions. Descriptive research design was adopted. The target population of 21,617 undergraduate students in FUT, Minna as at 2019/2020 academic session was used for the study. A sample of 200 undergraduate students was selected from the target population. Convenient and simple random sampling techniques were used to select 24 undergraduate students from each of the eight schools while eight undergraduate students was randomly selected from the 9<sup>th</sup> School of Entrepreneurship and Management Technology (SEMT). Structured questionnaire with four-point rating scale was randomly and conveniently used for data collection and 200 copies were administered on the respondents across the nine schools. Results showed the return rate of 156 completed copies of the questionnaire. Data analysis was carried out using descriptive statistics. Findings revealed that majority of the respondents use different kind of Internet mobile phones for one reason or the other and are useful, and enhancement to their academic activities. It was found that Internet mobile phones have contributed to perceived academic performance of undergraduate students. Other findings include unstable power supply and network service, and high cost of data were the serious problems to the use of Internet mobile phones by undergraduate students. The study concluded that the mobile phones will enhance academic activities of undergraduate students if well utilize. It was recommended that University management should collaborate with manufacturers of mobiles phones on the appropriate mobile phones to be use by undergraduate students for their academic activities; encouragement of collaborative learning through mobile phone while University management should provide alternative sources of power supply (solar, inverter, and standby generating plant) as well as subsidizing the price of data purchase.*

**Keywords:** Academic performance, Internet mobile devices, Nigeria, Undergraduate students, University, Technology



## **Introduction**

Universities all over the world are established to carry out teaching, research and community services. While faculty members are expected to carry out these three (3) cardinal functions (teaching, research and community service), students are expected to not only engaged in attending and receiving lecture but also are expected to learn and embark on researches; assignment, conference, workshop, seminar, project and term paper writing and presentations. These can only and conveniently have carried out by the use of Information Communication Technology (ICT) facilities such as computer as well as Internet mobile devices. Today, IMDs are used by many people and students to browse, access, download and if possible print the information for academic and other purposes (Abbas, Aashiq, Hassan & Alam, 2020; Iqbal & Bhatti, 2020). Students especially those in institutions of higher learning like the universities can stay outside the campus to access information resources so long as they are registered online public library catalog (OPAC) users without physically present in university library (Mohammed & Saka, 2016). Researchers reported further that librarians were of the opinion that there was high level of awareness on the use of smart phones which will greatly contribute to their performance in university libraries in North-west, Nigeria.

The arrival of ICT and Internet services has had a profound impact on nearly every aspect of human life. Mobile devices are products of ICT and nowadays, they have become an integral part of everyone's lives. Most people all over the universe are adopting these innovative and fascinating technological devices as a vital tools or gadgets to support their daily life activities (Jusoh & Fawareh, 2017). Today, mobile device usage is no longer a wish, as it was in the previous two decades, but is now highly prevalent all over the world. Individuals with mobile device can now access the Internet irrespective of their locations in order to satisfy their needs. Mobile phones are used by students for academic purposes such as preparation for tests, assignment, examinations, project writing and result obtained from these academic activities are functions of academic performance, respectively.

Undergraduate students seem to used mobile devices especially smart phones for social and entertainment purposes, which negatively affects their academic performance in the university under investigation. The study seeks to find out the perceived influence of the use of Internet-enabled mobile devices on the academic performance of undergraduate students, in Federal University of Technology (FUT), Minna, Niger State, Nigeria.

## **Statement of the Problem**

The advent of ICT has brought about some significant changes in every aspect of human life including education, agriculture, mining, health, information and economy. These changes have been facilitated through the use of Internet mobile devices. These devices are supposed to be used mostly for academic purposes. According to Iqbal and Bhatti (2020), smartphones can be effectively used for off- campus learning, communication with fellow students as well as for academic and non- academic purposes such as entertainment, social networking and collecting and sharing information. The undergraduate students in FUT, Minna have also taken advantage of this trend of using the Internet-enabled mobile devices in browsing the Internet as this has contributed greatly to their academic activities.



However, it has been observed that most of the undergraduate students of this institution have tremendously abuse the use of this devices as some are tempted to always interact with their mobile phones during lecture hours in the classroom, either by engaging in social media chat or by browsing the Internet for reasons other than what is being taught in class. This, no doubt, has reduced the level of attention paid to lectures. Even while lectures are over, most of them in their respective hostels and lodges, spend much time using their Internet-enabled mobile devices to engage in non-academic activities such as playing games watching movies, and chatting on social platforms like *WhatsApp, Facebook-Messenger, Instagram, Instant Messaging, Snapchat, Twitter* and others. Consequently, the time they ought to have utilize to engage in studying and other significant academic activities are been taken away by the improper use of this mobile device and thus, this has negatively affected their academic activities (Abbass, Aashiq, Hassan & Alam, 2020)

With this situation of undergraduate students' use of mobile devices without due regard to academic activities, this study is therefore set to investigate the types, effects of use and challenges in the used of Internet-enabled mobile devices on the academic activities of undergraduate students in FUT, Minna.

### **Objectives of the Study**

This study is aimed at investigating the perceived influence of Internet enabled mobile devices on the academic activities of undergraduate students in FUT Minna, Nigeria. However, the specific objectives are to:

1. identify various types of Internet-enabled mobile devices used by the undergraduate students in FUT, Minna;
2. examine undergraduate students' perceptions on the ease of use of Internet-enabled mobile devices to support their academic activities;
3. establish the effects associated with the used of Internet-enabled mobile devices on undergraduate students' academic activities in FUT, Minna; and
4. identify challenges in the use of Internet-enabled mobile devices by undergraduate students in FUT, Minna.

### **Research Questions**

The following questions guided the study:

1. What are the various types of Internet-enabled mobile devices used by the undergraduate students in FUT, Minna?
2. What are the undergraduate students' perceptions on the ease of use of Internet-enabled mobile devices to support their academic activities?
3. What are the effects associated with Internet-enabled mobile device use on the undergraduate students' academic activities in FUT, Minna?
4. What are the challenges in the use of Internet-enabled mobile devices by undergraduate students in FUT, Minna?



### **Review of Related Literature**

The use of ICTs has penetrated all spheres of human life including the use of mobile devices. These ICT facilities has gain popularity in this 21<sup>st</sup> century (information age) where students, teachers, lecturers as well as scholars and researchers access information at the tip of their fingers. There are several write-ups on mobile devices as well as mobile technologies such that each writer explains or describes the concepts associated with mobile devices or technologies on the basis of their perception. Few of the empirical related literature are hereby reviewed. In an examination of various ICT tools and media platforms used in enhancing knowledge sharing among LIS educators in Federal University Lafia, Nasarawa State, Nigeria; Omame, Gombe, Alex -Nmecha and Gomna (2020) adopted descriptive survey research design. Total enumeration of eight (8) LIS educators was used for the study because of small and manageable population. It was discovered that laptops and desktop computers, smartphones, projectors, flash drives, hard disk, CD/DVD ROM were highly utilized by LIS educators.

Abbas, Aashiq, Hassan and Alam (2020) conducted a study to determine the advantages and disadvantages of using smartphones among social work students at the university of the Punjab, Lahore. The study adopted quantitative methodology. The population consist of 203 social work students having smartphones. Structured questionnaire was used to collect data from 203 social work students. Findings revealed that the benefit of using smartphones is mainly to communicate family and friends and the side effect of using smartphones is their distraction in classroom.

Iqbal and Bhatti (2020) conducted a study to the determine teachers' perception on the use of smartphones in higher education context in developing countries with special emphasis on universities of Islamabad, Pakistan. The study adopted qualitative method with the target population of 130 full time faculty members in university of Islamabad, Pakistan. Purposive sampling technique was used to select full time 22 faculty members in private sector university in Islamabad, Pakistan. In-depth interview was conducted for the selected full time faculty members. Semi-structured interviewed via phone and email was conducted mostly in English with few in Urdu language between the month of March and April, 2019. Findings revealed from respondents that smartphones are used on daily basis for communication, social networking, entertainment, collecting and sharing information as well as using them for educational purposes. Respondents express fears on the use of smartphones as it serves as source of distraction, waste of time, technostress, emotional detachment. Major obstacles to the adoption of smartphones in higher learning include lack of training and support, technical knowledge, incentives for using technology education.

In very specific qualitative research conducted through interview by Salihu (2021) to determine the preparedness of library staff of Bayero University Kano, Nigeria, in applying mobile technology in service delivery, the study review that respondents agreed with the impact and relevance of applying mobile technology to service delivery. Lack of committed and skilled manpower in University Library has well as high tariff charges and data subscription were are the challenges associated with the use of mobile technology in the information service delivery in Bayero University Kano library.

Aliyu, Saka and Udoudoh (2021) investigated the level of awareness, perception on use and readiness of university libraries and librarians on the use of smart phones technologies for information service delivery in universities in North west Nigeria. The study was guided by three specific objectives, while descriptive survey design was



used with the target population of 504 librarians in universities in North West Nigeria. Multistage sampling procedure was used and purposive sampling technique to involve 226 respondents in 11 universities. However, 226 copies of questionnaire were administered. Mean, percentage, mean score and standard deviation were used to analyze the data collected with the results showing high level of awareness and that the use of smart phones will improve librarians' work.

### **Methodology**

Survey research design was used for this study as it involves several schools/faculties and departments in FUT, Minna, Nigeria and hence the study involves the use of sample drawn from population thereby designing questionnaire to elicit responses from undergraduate students being the target audience. The target population of the study comprises 21,617 undergraduate students in nine (9) schools in FUT, Minna as at 2019/2020 academic session. Table 1 showed the population distribution.

**Table 1: Population and Sample of the Study**

S/N	School	Population (A)	Sample Size (B)
1	School of Agriculture and Agricultural Technology (SAAT)	2975	24
2	School of Electrical Engineering and Technology (SEET)	1810	24
3	School of Entrepreneurship and Management Technology (SEMT)	496	08
4	School of Environmental Technology (SET)	3804	24
5	School of Information and Communication Technology (SICT)	1096	24
6	School of Infrastructure, Process Engineering and Technology (SIPET)	3039	24
7	School of Life Science (SLS)	2205	24
8	School of Physical Science (SPS)	4293	24
9	School of Science and Technology Education (SSTE)	1899	24
	<b>TOTAL</b>	<b>21,617</b>	<b>200</b>

**Source: Academic Office, FUT Minna (June, 2021)**

The researchers randomly selected 200 undergraduate students from nine (9) schools within FUT, Minna. With exception of SEMT with lesser population that randomly selected eight (8) students, all other eight (8) schools were randomly selected with 24 undergraduate students from each per school. The reason for this choice of sample technique was that students are typically busy people with limited time. It may be difficult for them to create out time from their tight schedules to complete questionnaires all at once, therefore basic random sampling, which is known to have significant flaws, is used. Secondly, since the only place to get most of the student's attention was in the classroom the researchers decided to visit each class to select few people. At the end, 200 undergraduate students were finally selected for the study with



24 from each school while SEMT with the lesser population has eight selected undergraduate students.

Structured/closed-ended questionnaire was designed and employed as the data collection tool for this research was distributed in a total of 200 copies on 200 undergraduate students by the researchers. The questionnaire contained two sections; Section A which contained level of undergraduate program of the respondents, while Section B contained well-structured questions based on the four research questions raised for the study.

To validate the instrument, lecturers from Department of Library and Information Technology, FUT, Minna were given the draft copies of structured questionnaire to evaluate after which the modified versions were corrected and then administered to the respondents to seek their opinion regarding items on the questionnaire. The data were collected through the use of the questionnaires that were filled by the students. Descriptive statistical tools such as frequency counts/tables and percentages were used as the appropriate descriptive statistical tool for the analysis of the data. Tables and figures were used to present the results of the data in order to provide comprehensive understanding of the data and also show relationship between data.

#### **Response Rate**

A total of 200 copies of the questionnaire were administered to the respondents, out of the 200 copies, 156(78.0%) copies were filled and returned in usable form.

Section A: Level of Undergraduate Programme of Respondents

#### **Analysis and Results**

**Table 2: Respondents' Level of Undergraduate Programme**

Level	Frequency	Percentage (%)
100	11	7
200	49	31
300	43	28
400	4	3
500	49	31
<b>Total</b>	<b>156</b>	<b>100</b>

Table 2 revealed respondents by level of undergraduate program in the university. It showed that 200 and 500 level students used mobile phone more. The reason to be advanced for this is that 200 level students in all the departments in the university usually commence their full program at 200 level and hence at 100 level they offer General Study (GST) courses as well as general program. As of 500 level students, apart from the fact that they are in their final year, they are also busy engaging in project writing.



**RQ 1:** What are the various types of Internet-enabled mobile devices used by the undergraduate students in FUT, Minna?

**Table 3: Types of Internet-enabled Mobile Devices used by the Respondents**

<b>Types</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Techno	62	40
Infinix	45	29
iPhone	11	7
Samsung	10	6
Itel	9	6
Nokia	4	3
Tablet	1	.64
Redmi	3	2
Others	12	8
I don't have Internet mobile phone	0	
<b>Total</b>	<b>157</b>	<b>100</b>

Although the response rate showed 156 respondents but the frequency on Table 3 showed 157 signifying that a respondent is likely to tick more than one type of mobile device. Table 3 shows the type of the devices used by students according to their distribution. Data showed that 39.79% of the students are use Tecno phone, 28.85% use Infinix, 7.05% use iPhone, 6.41% use Samsung, 5.77% use Itel, 2.56% use Nokia, 0.64 use Tablet, 1.92 use Redmi, while 7.69 of the respondents use other Internet enabled mobile phones such as Gionee, and Huawei. Tecno smartphones have the highest users because it is more popular and easily affordable while Tablets have the lowest users because it is not portable to be carried about on campus.



**RQ 2:** What are the students' perceptions on the ease of use of Internet-enabled mobile devices to support their academic activities?

**Table 4: Respondents' Perception on Ease of Use of Internet Mobile Phones in Learning**

S/ N	Item statements	SA	A	D	SD	Total
1	Easy using Internet mobile phone for learning	93(59.6%)	59(37.8%)	2(1.3%)	2(1.3%)	156(100)
2	Require any additional skills to use Internet mobile phone	22(14.1%)	49(31.4%)	57(36.5%)	28(17.9%)	156(100)
3	Easy using Internet mobile phone to access course materials	88(56.4%)	58(37.2%)	9(5.8%)	1(0.64%)	156(100)
4	The interface of Internet mobile phone is user friendly	84(53.8%)	64(41.0%)	7(4.5%)	1(0.64%)	156(100)
5	I interact with Internet mobile phone without any difficulties	97(62.2%)	51(32.7%)	8(5.1%)	0(0)	156(100)
6	Encounter technical problem when using Internet mobile phone for learning.	21(13.5%)	37(23.7%)	68(43.6%)	30(19.2%)	156(100)
7	Perceived it to be useful academically	108(69.2%)	44(28.2%)	4(2.6%)	0(0)	156(100)
<b>Total</b>		<b>513</b>	<b>362</b>	<b>155</b>	<b>62</b>	<b>1092</b>
<b>Percentage (%)</b>		<b>47.0%</b>	<b>33.2%</b>	<b>14.2%</b>	<b>5.7%</b>	<b>100%</b>

The result from Table 4 shows that 108(69.2%) of the respondents indicated that they perceived Internet-enabled mobile devices to be useful academically. This is because of the unique features embedded into these devices such as the ability to browse the Internet to access information, download and read course materials, engage in group conversations etc. The data showed that only 1(0.64%) of the respondent Strongly disagree that the interface of these devices are user-friendly, this could be due to the complex nature of the user-interface of most of these devices, thereby making it difficult to interact with it.





**RQ 3:** What are the effects associated with Internet-enabled mobile device use on the undergraduate student's academic performance in FUT, Minna?

**Table 5: Effects of Internet Mobile Phone Use on Respondents' Academic Performance**

S/N	Statements	SA	A	D	SD	Total
1	Internet mobile phone improve my academic performance	69(44.2%)	74(47.4%)	11(7.1%)	2(1.3%)	156(100)
2	It support private learning	87(55.8%)	64(41.0%)	3(1.9%)	2(1.3%)	156(100)
3	Internet mobile phone makes me not to pay much attention during my studies	15(9.6%)	44(28.2%)	64(41.0%)	33(21.1%)	156(100)
4	Spent much time on entertainment rather than education with Internet mobile device	25(16.0%)	43(27.6%)	57(36.5%)	31(19.9%)	156(100)
5	It helps to broadened knowledge	83(53.2%)	62(39.7%)	9(5.8%)	1(0.6%)	156(100)
6	It distract in the class and causes low academic performance	18(11.5%)	39(25.0%)	53(34.0%)	46(29.5%)	156(100)
7	I read ahead of lecture with my Internet mobile device	40(25.6%)	76(48.7%)	34(21.8%)	6(3.8%)	156(100)
<b>Total</b>		<b>337</b>	<b>402</b>	<b>231</b>	<b>121</b>	<b>1092</b>
<b>Percentage (%)</b>		<b>30.9%</b>	<b>36.8%</b>	<b>21.2%</b>	<b>11.1%</b>	<b>100%</b>

Table 5 shows that 87(55.8%) of the respondents indicated Strongly Agree to Internet-enabled mobile devices supporting private learning. This is because with these devices, one can learn at his/her own conveniences and also engage in private video tutorial online to acquire more knowledge. The data also showed that only 1(0.64%) of them strongly disagree that these devices can be used to broadened knowledge. This is because they felt that these devices are distractions to them due to the fact that they engage more on the entertainments features rather than the academic aspect of it.



**RQ 4:** What are the challenges to the use of Internet-enabled mobile devices by undergraduate students in FUT, Minna?

**Table 6: Challenges to the Use of Internet-enabled Mobile Devices**

S/N	Statements	SA	A	D	SD	Total
1	Cannot afford it	16(10.3%)	41(26.3%)	76(48.7%)	23(14.7%)	156(100)
2	Unstable power supply	55(35.3%)	80(51.3%)	11(7.1%)	10(6.4%)	156(100)
3	Instability of network service	62(39.7%)	74(47.4%)	16(10.3%)	4(2.6%)	156(100)
4	High cost of data	71(45.5%)	64(41.0%)	16(10.3%)	5(3.2%)	156(100)
5	Sleepless night and fatigue	21(13.5%)	51(32.7%)	66(42.3%)	18(11.5%)	156(100)
6	Hearing or sight problem	11(7.1%)	33(21.2%)	71(45.5%)	41(26.3%)	156(100)
7	Difficult to operate	7(4.5%)	8(5.1%)	76(48.7%)	65(41.7%)	156(100)
<b>Total</b>		<b>243</b>	<b>351</b>	<b>332</b>	<b>166</b>	<b>1092</b>
<b>Percentage (%)</b>		<b>22.3%</b>	<b>32.1%</b>	<b>30.4%</b>	<b>15.2%</b>	<b>100%</b>

The result from Table 6 shows that 80(51.3%) of the respondents Agree that unstable power supply was the major challenges to the use of Internet-enabled mobile devices. This is because the batteries of most of these devices don't serve for a long time and as a result of this, they will need a constant power supply to charge the batteries of their devices whenever it runs down, but unfortunately power supply is unstable. The lowest data 4(2.6%) revealed strongly disagree on the instability of network service as a challenge to the use of these devices. This is because they believe that network service is always available for them to use.

### **Discussion of the Findings**

On the issue concerning the type of Internet-enabled mobile devices possessed by the undergraduate students of FUT, Minna, the findings showed that majority of the respondents used Tecno and Infinix while iPhone, Itel, Samsung and other kinds of Internet-enabled mobile phones such as Gionee, Huawei and Oppo also have significant number of users. Only a few respondents have Nokia, Tablets and Redmi. Therefore, the findings corroborate that of Aliyu, Saka and Udoudoh (2021) but contradict that of Omame, Gombe, Alex-Nmecha and Gomna (2020) respectively. Aliyu, Saka and Udoudoh (2021) reported the availability of different kind of well-known systems of smart phones which include: Android, iOS (iphone Operating System) and Windows Phone. Omame, Gombe, Alex-Nmecha and Gomna (2020) reported the availability of laptops and desktop computers, smartphones, projectors, flash drive, hard disk as well as CD/DVD ROM and were highly utilized by LIS educators in university - based library school

The findings of the study on undergraduate students' perception on the ease of use of Internet mobile phones in learning activities showed that majority of the students finds it easy to use them for learning and has positively influenced their academic



performance. This finding support that of Iqbal and Bhatti (2020) and Salihu (2021) but contradict the finding of Abbas, Aashiq, Hassan and Alam (2020), respectively. Iqbal and Bhatti (2020) reported smartphones usage to enhance off-campus learning, communication and for general educational purposes. Salihu (2021) reported that library staff agree with the impact and relevance of applying mobile technology to service delivery in university library. Abbas, Aashiq, Hassan and Alam (2020) reported the advantages and disadvantages of using smartphones by students and thus they are use in communicating family and friends at the same time they distract classroom teaching and learning among students of social work department at university of the Punjab, Lahore.

The findings on the effect of Internet-enabled mobile devices use on the academic activities of the undergraduate students reveals that majority of respondents agreed that Internet-enabled mobile devices support their private learning and this finding is contrary to part of findings by Iqbal and Bhatti (2020) as well as Salihu (2021), respectively. The former co-researchers in 2020 revealed part of findings as fear created in using smartphones to include source of the distraction, wastage of time, technostress; while major obstacles to the adoption of smartphones in higher learning include lack of training and support, technical knowledge and incentives for using technology in education. Salihu (2021) reported high tariff charges, lack of committed and competent staff among others as problems to application of mobile technology in information service delivery in library of Bayero University, Kano.

Findings of the study on the challenges in the use of Internet-enabled mobile device for academic performance showed that majority of the respondents agreed that the high cost of these devices is a factor that is limiting them from purchasing it. In providing answer to research question four, it was discovered that unstable power supply and network service as well as high cost of data were the most serious problems to undergraduate students on the use of Internet – enabled mobile devices in the university. This finding contradicts the findings of Abbas, Aashiq, Hassan and Alam (2020) and Salihu (2021), respectively. Abbas *et. al.* (2020) reported the use of smartphones by students in communicating friends and family and causes distraction in classroom; while Salihu (2021) reported lack of committed and skilled manpower and high tariff charges/data subscription as the most serious challenges to the use of mobile technology in the information delivery in university library.

## **Conclusion**

Arising from the result presented and its discussion, this study concludes that Internet-enabled mobile phones usage by the undergraduate students in FUT, Minna enhanced the students' academic activities if well utilized, but if not properly utilized can cause harm to their academics. The proper use of these devices by the students has led to the enhancement and improvement of knowledge acquisition by some of the under graduate students thereby increasing their academic activities and vice versa.

## **Recommendations**

Based on the findings of the study, the following recommendations are made:

1. There should be collaboration between University management and manufacturers of mobile devices/phones to advice the university on the type of phones to be used



by undergraduate students for their academic activities. Alternatively, University management can liaise with manufacturers of mobile phones to manufacture specific mobile phones for the use of academic activities only.

2. Undergraduate students should be encouraged to use mobile phones on specific academic activities such as: assignment, term paper, research, practical class, seminar/paper presentation as well as virtual conference presentation.
3. Management of FUT, Minna should encourage undergraduate students on collaborative learning through the use of mobile phones. Undergraduate students should be encouraged to organize group learning, online learning as well as formation of social media platform.
4. The management of FUT, Minna should provide alternative sources of power supply such as solar, inverter as well as stand-by- generating plant to solve the problem of power failure. Subscription to data should be given priority, while students be charged less in the course of using university ICT facilities.

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**Dr Katamba Abubakar Saka** obtained NCE, BLIS, MLS and Ph.D. Library and Information Science. He joined Federal University of Technology, Minna as an Assistant Lecturer in August, 2005 and rose through the ranks to become Associate Professor in 2019 in the Department of Library and Information Technology. Dr. Saka who held several positions of authority in the University was Head of Department (2015-2020). He has supervised both undergraduate and Postgraduate (Master and Ph.D.) research works. He was appointed a substantive University Librarian in March, 2021. A member of the NLA, NALISE and AULNU. Also, certified member of the Librarians' Registration Council of Nigeria (LRCN). He is visible at local, national and international conferences and workshops; widely published in both refereed and professional journals, proceedings, book chapters and a textbook. His area of specialization is Library Management. Dr. Saka can be reached at: [s.katamba@futminna.edu.ng](mailto:s.katamba@futminna.edu.ng).

**Kelechi Ekwuluonu** obtained his first school leaving certificate at Our Lady's Nursery and Primary School, Suleja, Niger State. He completed his Secondary School in 2013 in Taraba State and got admitted into Federal University of Technology Minna, Niger State in 2015 to study Library and Information Technology, where he was awarded Certificate of Excellence for Outstanding Performance in 2019/2020 academic session. He also bagged a First Class Honor degree. After his NYSC in Ekiti State, he finally chose to pursue his career goal in the field of ICT as a software developer. He has built three software as a personal project such as Ecommerce, Blog and Customer Relation Management Apps.



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## **INFORMATION LITERACY SKILLS AND COMPUTER SELF-EFFICACY OF ELECTRONIC RESOURCES USE AMONG ACADEMIC STAFF IN FEDERAL POLYTECHNIC, EDE, OSUN STATE, NIGERIA**

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### **ABSTRACT**

*Electronic resources are vital for achieving the cardinal goals of polytechnics. However, it is unclear if the lecturers have information literacy abilities and computer self-efficacy for using electronic resources. Therefore, the study investigated the influence of information literacy skills and computer self-efficacy on the use of electronic resources by academic staff in Federal Polytechnic, Ede. The descriptive survey design was adopted for the study. Data were analyzed using descriptive and inferential statistics. Of the 186 respondents, findings revealed that the levels of computer self-efficacy, information literacy skills and electronic resources use of the lecturers were high. A positive and significant relationship was found between computer self-efficacy and electronic resource use ( $r=0.525$ ,  $p<0.05$ ), information literacy skills and electronic resource use ( $r=0.442$ ,  $p<0.05$ ). Computer self-efficacy and information literacy skills had a positive joint influence on the use of electronic resources by academic staff in Federal Polytechnic, Ede. The study, therefore, concludes that information literacy and computer self-efficacy can enhance the use of electronic resources for the good of the academic activities and research endeavours of the lecturers, which would eventually translate to better service delivery not only to the Federal Polytechnic, Ede, but also to the generality of the higher institutions in Nigeria.*

### **Introduction**

Tertiary education in Nigeria is delivered via two primary channels: polytechnics and universities. Polytechnic education's major goal is to promote technical and vocational education and training, technology transfer, and skill development. It is critical to a country's human resource development because it creates skilled labour, increases industrial productivity, and improves the quality of life. Polytechnic education,



in general, is intended to give technical knowledge that will aid society in fulfilling its industrial objectives (Babalola, 2019). As a result of the technical nature of polytechnics, the use of electronic resources (ER) becomes essential. Electronic resources are electronic information storage systems that may be accessed via computer networks and electronic systems. It might be a piece of information in the library that can only be accessed electronically through ICT. Likewise, Suresh and Ravi (2020) defined ER as any electronic device that offers a collection of data that requires computer access, whether it is text referring to full-text bases, image collections, electronic journals, other multimedia products, numerical, graphical, or time based, as a commercially available title that has been published with the intention of being marketed.

E-resources can also provide users with quick and simple access to critical information. They support academic staff by transmitting, acquiring, downloading, and exchanging information on any topic of interest. Iroaganachi and Izuagbe (2018) highlighted that e-resources utilize knowledge from many fields acquired to satisfy lecturers' intended needs constructively. It also provides searching, evaluating, accessing, and placing these information resources appropriately to meet various information needs. E-resources offer an advantage over conventional records since printed documents are easily lost, forgotten, and dis-coloured. Many of these difficulties associated with traditional records are eliminated and lecture delivery is improved by the use of e-resources to store information. As such, the transfer and exchange of information and expertise from lecturers to students have improved. E-resources are deemed to have a high potential for learning, teaching, and research because of their ability to disseminate new research findings and provide remote access without physical constraints (Ridwan, Felix, & Mohammed, 2019).

However, to reap the full benefits of ERs, lecturers must learn how to use the ICT enabling technologies that allow these resources to be accessed and utilized (Adetayo, 2022). Kpolovie and Awusaku (2016) emphasized that lecturers must be competent and efficient in their use of ICT to succeed in today's highly competitive environment, which depends on such information literacy skills. The capacity to seek, identify, locate, assess, and critically evaluate material obtained on the internet is referred to as information literacy. Wesleyan University (2016) defined information literacy as a valuable skill that allows one to quickly manage the massive information accessible due to the current information explosion. To make the most of the ever-expanding list of electronic resources, lecturers must learn the fundamental information literacy skills required to identify, retrieve, and use of electronic resources. This indicates that developing skills in e-resources use requires a deep foundation of the knowledge of ICT itself and coordination of such knowledge in manners that enable the application.

Ayoku and Victoria (2015) identified e-mailing, word processing, formatting, internet and database searching as some of the abilities that lecturers must have to enjoy the benefits of e-resources for academic productivity. As a result, lecturers' capacity to successfully use e-resources is rapidly acknowledged as an essential component of their teaching. In this technological age, a lack of information literacy skills may be a barrier to lecturers' utilization of e-resources, thereby lowering their lecture delivery. To fully realize the potential of e-resources, computer self-efficacy is crucial. Self-efficacy was proposed by Bandura (1977), arguing that people who question their efficacy are more inclined to perceive recurrent achievement as the result



of tedious effort rather than proof of their competence. Self-assured people are more confident in their skills after comparable accomplishments. This means that persons with low self-efficacy, even when they are capable of completing a work, perceive it as a “laborious effort” or struggle, rather than attributing it to their competence, which makes the activity unpleasant and leads to a propensity to avoid doing such responsibilities.

On the other hand, those with high self-efficacy credit success to their abilities, which makes them confident and ready to participate in such activities. This is the reason why academic staff can demonstrate computer self-efficacy when using electronic resources. Computer self-efficacy refers to an individual’s assessment of their competence to utilize a computer (Okike & Adetoro, 2019). Academic staff with poor self-efficacy are more inclined to avoid using computers. Even if they do, they may perceive it as a complex activity, but academic staff with high self-efficacy may be driven to continue using the computer, feeling that they can employ it, therefore increasing personal abilities through practice. Academic staff with strong computer self-efficacy are more inclined than others to experiment with new technologies, software, or databases. When it comes to using e-resources, lecturers with high computer self-efficacy may be expected to be more likely to utilize them than lecturers with low computer self-efficacy, as the latter may lack confidence or shy away from using computer-based resources.

As a result of the electronic character of e-resources, academic staff are expected to be knowledgeable and confident in using ICT devices. These abilities include, but are not limited to, understanding of data input, file organization and management, explaining fundamental computer operations, familiarity with computer software packages, and navigation of the World Wide Web. Despite this assertion, the anecdotal report indicated that this e-resource had not been used as expected, particularly among polytechnic lecturers. Against this backdrop, this study examines the information literacy skills and computer self-efficacy of e-resources use among academic staff in Federal Polytechnic, Ede, Osun State, Nigeria.

### **Statement of the Problem**

Electronic resources have been created to assist academic staff in carrying out effective and high-quality teaching, learning, and research activities. They are among the ubiquitous sources of knowledge utilized by individuals and nations worldwide to satisfy the demands of growth and development. ICTs are the steam engines that harness these resources. Academic staff information literacy and computer self-efficacy increase e-resource usage for teaching and research productivity, relevance, and intellectual contributions to the academic community.

Despite the enormous benefits of e-resources, anecdotal data suggests that lecturers’ efficient utilization of e-resources is still a work in progress in the polytechnic environment. As a result, it is unclear if the lecturers have information literacy abilities and computer self-efficacy for using e-resources. Against this backdrop, the study is motivated to assess the academic staff information literacy skills and computer self-efficacy in the use of e-resources in Federal Polytechnic, Ede, Osun State.





### **Objectives of the Study**

The broad objective of the study was to investigate the influence of information literacy, computer self-efficacy on the use of e-resources by academic staff in Federal Polytechnic, Ede, Osun State, Nigeria. Specifically, the study seeks to:

1. ascertain the types of e-resources available for use by academic staff in the Federal Polytechnic Ede, Osun State, Nigeria;
2. find out the purpose(s) of use of e-resources by academic staff in the Federal Polytechnic Ede, Osun State, Nigeria;
3. determine the frequency of use of e-resources by academic staff in the Federal Polytechnic Ede, Osun State, Nigeria;
4. ascertain the information literacy skills level of academic staff in the Federal Polytechnic Ede, Osun State, Nigeria; and
5. investigate the level of computer self-efficacy of lecturers in the Federal Polytechnic Ede, Osun State, Nigeria;

### **Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

1. There is a significant relationship between information literacy skills and use of e-resources by academic staff in Federal Polytechnic, Ede.
2. There is a significant relationship between computer self-efficacy and use of e-resources by academic staff in Federal Polytechnic, Ede.
3. Information literacy skills and computer self-efficacy will have significant joint influence on the use of e-resources by academic staff in Federal Polytechnic, Ede.

### **Methodology**

The study utilized the descriptive survey design, whose purpose was to describe the relevant aspects of the phenomena of interest. The design was appropriate for this study because it provided an accurate representation of how the independent variables (information literacy skills and computer self-efficacy) determined the dependent variable (e-resources) by academic staff in Federal Polytechnic Ede, Osun State, Nigeria.

### **Population of the Study**

The study population consisted of 469 academic staff in the Federal Polytechnic Ede, Osun State, Nigeria, as shown in Table 1.

**Table 1: Study Population**

<b>Schools</b>	<b>Population</b>
School of Applied Science	160
School of Business Studies	136
School of Engineering	78
School of Environmental Studies	84
Library	11
<b>Total</b>	<b>469</b>

Source: Human Resource Development Office, 2021



### **Sample Size and Sample Techniques**

Multi-stage sampling techniques was employed for the study. At the first stage, purpose sampling technique was used to select only the academic staff on permanent appointment in the four schools and the library. At the second stage, proportionate stratified sampling technique was used in the selection of academic staff across the three categories (lecturers, technologist and instructors) in the schools using 40% of the population. At the third stage simple random sampling techniques was used in selecting the respondents to the research instrument.

**Table 2: Sample Size**

<b>Schools</b>	<b>Population</b>	<b>Percentage</b>	<b>Sample</b>
School of Applied Science	160	40%	64
School of Business Studies	136	40%	54
School of Engineering	78	40%	31
School of Environmental Studies	84	40%	33
Library	11	40%	4
<b>Total</b>	<b>469</b>		<b>186</b>

The instrument employed for data collection was a structured questionnaire. For face validity, the instrument was scrutinized by experts in the field of the subject matter of this study to look into the items involved critically. Suggestions made by experts were effected in the questionnaire before it was finally administered. After the scrutiny and correction of the questionnaire, the copies of the questionnaire were administered to the lecturers in Federal Polytechnic, Ede, Osun State, Nigeria. Three research assistants were recruited and trained to assist the researchers with administration, monitoring and collection of copies of the questionnaire.

The data was collated and analyzed using descriptive and inferential statistics. Descriptive statistics such as frequency counts, percentages, mean and standard deviation scores were used to measure research objectives 1-5, while Pearson Product -Moment correlation (PPMC) and multiple regression were used to test the hypotheses. PPMC was used to test hypotheses one (1), and two (2), whereas multiple regression was used to test hypothesis three (3).

### **Analysis and Results**

The questionnaire was circulated among 186 respondents. A total of 176 copies of completed questionnaire were collected, showing a response rate of 94.6%. Therefore, the completely 176 copies of the questionnaire retrieved were used in the analysis of this study

#### *Demographic Characteristics of the Respondents*

This section reports the information on demographic characteristics such as the respondents' name of school, department, gender and years of experience. The data on these characteristics were analyzed using descriptive statistics of frequency counts and percentages; as presented in Table 2.



**Table 2: Demographic Distribution of the Respondents**

<b>Name of School</b>	<b>Frequency</b>	<b>Percentage (%)</b>
School of Applied Science	37	21.0
School of Business Studies	71	40.3
School of Engineering	37	21.0
School of Environmental Studies	31	17.6
<b>Total</b>	<b>176</b>	<b>100.0</b>
<b>Gender</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	102	58.0
Female	74	42.0
<b>Total</b>	<b>176</b>	<b>100.0</b>
<b>Age Range</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Below 30 years	7	4.0
30 – 35 years	21	11.9
36 – 40 years	57	32.4
41 – 50 years	74	42.0
Above 50 years	17	9.7
<b>Total</b>	<b>176</b>	<b>100.0</b>
<b>Work experience</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1 – 5 years	25	14.2
6 – 10 years	82	46.6
11 – 15 years	35	19.9
16 – 20 years	20	11.4
Above 20 years	14	8.0
<b>Total</b>	<b>176</b>	<b>100.0</b>

The information provided in Table 2 revealed four schools represented in the study, with the School of Business Studies having the highest number 71(40.3%) while the School of Environmental Studies had the lowest number of respondents 31(17.6%). This could be said to be proportionate to the number of academic staff in each school represented. The majority of respondents (58.0%) were male within the age bracket of 41-50 years (42.0%), followed by 36-40 years (32.4%). This implies that most of the academic staff in Federal Polytechnic, Ede were middle-aged. In terms of work experience, the majority (46.6%) are between 6-10 years. This suggests that the participants in the study were quite experienced professionals capable of responding appropriately to the questions raised in the study.



**Table 3: Types of Electronic Information Resources Available for Use**

E-resources	Yes		Yes		Mean	STD
	N	%	N	%		
1 E-journal	154	87.5	22	12.5	1.88	0.332
2 Manuscripts	73	41.5	103	58.5	1.46	0.431
3 E-books	97	55.1	69	39.2	1.76	0.196
4 E-thesis	87	49.4	79	44.9	1.68	0.469
5 E-data archives	56	31.8	120	68.2	1.38	0.467
6 E-newspaper	80	45.5	89	50.6	1.58	0.467
7 E-bibliographic database	105	59.7	71	40.3	1.60	0.492
8 E-magazines	84	47.7	92	52.3	1.52	0.501
9 E-mails	165	93.8	11	6.3	1.98	0.325

**Weighted mean = 1.65, Standard deviation = 0.409**

The result in Table 3 revealed that the respondents used different types of electronic information resources, as indicated by the overall weighted mean score of 1.65, on a scale of 1-2. The respondents used electronic information resources such as e-mails (mean=1.98), e-journals (mean=1.88), e-books (mean=1.76), e-bibliographic database (mean=1.60) and e-magazines (mean=1.52). On the other hand, the type of electronic information resources less used by the respondents were manuscripts (mean =1.46) and e-data archives (mean=1.38). The result suggests that the respondents used various types of electronic information resources for academic, research and community services, as required for their jobs. The above result showed that e-mails, e-journals, e-books, and e-newspapers were the most utilized resources by the respondents on their job while e-data archives and manuscripts were the least utilized.

**Table 4: Purpose of E-resources Use Academic Staff**

e-resources used for:	Yes		Yes		Mean	STD
	N	%	N	%		
1 Lecture delivery	119	67.6	57	32.4	1.68	0.469
2 Research purposes	133	75.6	43	24.4	1.86	0.196
3 Leisure	77	43.8	99	56.3	1.39	0.467
4 News/Information	127	72.2	49	27.8	1.73	0.490
5 Access e-mail	165	93.8	11	6.3	1.96	0.528

**Weighted mean = 1.72, Standard deviation = 0.430**

The result in Table 4 revealed that the respondents used electronic resources for purposes such as accessing e-mail (mean=1.96), research purposes (mean=1.86), news information (mean=1.73) and lecture delivery (mean=1.68). On the contrary, only a minority (77, 43.8%) of the respondents claimed they used electronic resources for leisure, while the majority of the lecturers did not regard electronic resources for leisure (99, 56.3%, mean=1.39). This result implies that the respondents used electronic resources to access e-mail, conduct research, and lecture delivery without recourse to using the same for leisure.



**Table 5: Frequency of Use of E-resources by the Respondents**

E-resources	Frequent-ly Used		Occa-sionally		Rarely used		Not used		Mean	STD
	N	%	N	%	N	%	N	%		
E-journal	78	44.3	77	43.8	14	8.0	7	4.0	3.28	0.778
Manuscripts	35	19.9	49	27.8	85	48.3	7	4.0	2.20	0.896
E-books	56	31.8	84	47.7	26	14.8	10	5.7	3.23	0.867
E-thesis	40	22.7	70	39.8	35	19.9	31	17.6	2.73	1.005
E-data archives	28	15.9	43	24.4	49	27.8	56	31.8	2.39	1.078
E-newspaper	56	31.8	56	31.8	29	16.5	35	19.9	2.76	1.107
E-bibliographic database	28	15.9	49	27.8	63	35.8	36	20.5	2.41	0.985
E-magazines	35	19.9	71	40.3	56	31.8	14	8.0	2.72	0.873
E-mail	106	60.2	42	23.9	26	14.8	2	1.1	3.44	0.754

**Weighted mean =2.94, Standard deviation = 0.927**

The result in Table 5 shows that the level of use of electronic resources by the respondents was considered high, as indicated by the weighted mean score (2.94), on a scale of 4. Specifically, e-mail (106, 60.2%, mean=3.44), e-journals (78, 44.3%, mean=3.28) and e-books (56, 31.8%, mean=3.23) were the three most frequently used. In contrast, manuscripts (mean=2.20), e-data archives (mean=2.39) and e-bibliographic database (mean=2.39), were less frequently used electronic resources. This result implies that most of the respondents used such electronic resources as e-mail, e-journals and e-books more frequently than the others like manuscripts and e-data archives, but the totality of the frequency of use of electronic resources was found to be high.



**Table 6: Level of Information Literacy Skills Possessed by the Respondents**

Information Literacy skills' Ability	SA		A		D		SD		Mean	STD
	N	%	N	%	N	%	N	%		
1 Locate information in multiple sources	92	52.3	50	28.4	20	11.4	14	8.0	3.41	0.639
2 Browse online databases to locate needed information	76	43.2	64	36.4	18	10.2	18	10.2	3.27	0.827
3 Compare and evaluate critically whether the information collected is credible and relevant	42	23.9	65	36.9	41	23.3	28	15.9	2.92	0.627
4 Judge critically whether information on websites is authentic and accurate	57	32.4	71	40.3	28	15.9	20	11.4	3.16	0.677
5 Compare and evaluate critically whether the information is timely and appropriate	35	19.9	82	46.6	42	23.9	17	9.7	2.88	0.765
6 Format and publish ideas electronically in textual form	36	20.5	68	38.6	48	27.3	24	13.6	2.89	0.820
7 Create content in blogs, YouTube and personal web pages for the students	35	19.9	44	25.0	70	39.8	27	15.3	2.42	0.826
8 Format and publish ideas electronically in multimedia form	39	22.2	49	27.8	74	42.0	14	8.0	2.44	0.831



9	Decide when to adopt the continually emerging innovations in information technology	53	30.1	64	36.4	36	20.5	23	13.1	3.01	0.852
10	Know when to adopt latest product development in new information technologies	46	26.1	60	34.1	43	24.4	27	15.3	2.99	0.852
11	Understand how information is socially situated	56	31.8	77	43.8	26	14.8	17	9.7	3.03	0.827
12	Understand how information is socially produced	35	19.9	92	52.3	27	15.3	22	12.5	2.88	0.765

**Weighted mean = 2.95, Standard deviation = 0.776, AM = 35.63, STD = 9.308**

SA – Strongly Agree, A – Agree, D – Disagree, SD, Strongly Disagree

Respondents were asked to indicate their level of use of electronic resources. The result in Table 6 reveals that the information literacy skills possessed by the respondents were high, as indicated by the weighted mean score of 2.97, on a scale of 4. Expressly, the majority of the respondents affirmed their high level of information literacy skills through their responses as follows: Locate information in multiple sources (142, 80.7%, mean=3.41), Browse online databases to locate pertinent information (140, 79.5%, mean=3.27) and Judge critically whether information on websites is authentic and accurate (117, 66.5%, mean=3.16) were the three most highly ranked information literacy skills possessed by the respondents. On the other hand, the majority of the respondents affirmed in the negative to “Create content in blogs, YouTube and personal web pages for the students” (mean=2.42) and to Format and publish ideas electronically in multimedia form (mean=2.44). From these results, it could be concluded that the academic staff’s level of information literacy skills among the respondents was high in almost all aspects of information literacy except content creation in blogs, YouTube, and personal web pages for the students.



**Table 7: Level of Computer Self-efficacy of the Respondents**

Statement	SA		A		D		SD		Mean	STD
	N	%	N	%	N	%	N	%		
1 confident using e-resources even if there is no staff around to show me how to use it	63	35.8	85	48.3	21	11.9	7	4.0	3.56	0.784
2 confident using e-resources even if I have never used it before	43	24.4	84	47.7	42	23.9	7	4.0	2.93	0.800
3 confident using e-resources even if I only have library orientation	42	23.9	88	50.0	30	17.0	16	9.1	3.03	0.667
4 confident using e-resources if I see someone else using it before I try it myself	57	32.4	112	63.6	4	2.3	3	1.7	3.48	0.533
5 confident to retrieve documents from the e-resources when needed	54	30.7	88	50.0	20	11.4	14	8.0	3.37	0.604
6 have the necessary knowledge to use e-resources	61	34.7	67	38.1	28	15.9	20	11.4	3.44	0.711
7 have control over the use of e-resources for my academic activities	49	27.8	86	48.9	27	15.3	14	8.0	3.12	0.711
8 confident understanding terms/words relating to e-resources use	40	22.7	79	44.9	32	18.2	25	14.2	3.07	0.748
9 it is quite easy to locate materials through the e-resources	56	31.8	77	43.8	22	12.5	21	11.9	2.95	0.961
<b>Weighted mean = 3.22, Standard deviation = 0.724</b>										

SA – Strongly Agree, A – Agree, D – Disagree, SD, Strongly Disagree

The result in Table 7 revealed that the statement in item 1, which stated that “I feel confident using e-resources even if there is no staff around to show me how to use it” ranked highest in terms of the mean score with a mean score of 3.56 (STD=0.784). It also reveals that 63 (35.8%) of the respondents strongly agreed with this statement, 85 (48.3%) agreed, 21(11.7%) disagreed, and only 7(4.0%) strongly disagreed with this. This was followed by item 4, which stated that” I feel confident using e-resources if I see someone else using it before I try it myself” had the second highest score in terms of mean with a score of 3.48 (STD=0.533). This is evident in the responses given, where 61(34.7%) strongly agreed with the statement, and 67(38.1%) agreed with the statement, 28(15.9%) disagreed, and 20(11.4%) of the respondents strongly disagreed.





Further, the overall level of computer self-efficacy of the respondents was found to be high, considering the weighted mean of 3.22 on a scale of 4. Therefore, the respondents had a high level of computer-self efficacy.

**Test of Hypotheses**

This section discusses the findings of the study’s hypotheses; as shown in Table 8.

**Table 8: Summary of correlation analysis showing the relationship between information literacy skills and use of electronic resources**

Variables	Mean	STD	N	Df	R	Sig	Remark
Information Literacy Skills	35.63	9.308					
Use of Electronic Resources	25.16	8.343	176	2	0.442	0.000	Sig.
<b>Relationship between computer self-efficacy and use of electronic resources</b>							
Variables	Mean	St. dev.	N	Df	R	Sig	Remark
computer self-efficacy	28.95	6.519	176	2	0.525	0.000	Sig.
Use of Electronic Resources	25.16	8.343					
<b>Joint Influence of Information literacy skills and computer self-efficacy on use of electronic resources</b>							
Variables		Beta (β)	T	R <sup>2</sup>	Adj. R <sup>2</sup>	F	Sig
(Constant)			8.389				
Information Literacy Skills		0.210	2.848	0.203	0.194	22.033	0.000
Computer Self-efficacy		0.325	4.416				
Dependent Variable: Electronic resources use							
Predictors: Information Literacy Skills; Computer Self-efficacy							
DF (F-Statistic) = 1, 174      DF (T-Statistic) = 173							

**H<sub>1</sub>:** There is a significant relationship between information literacy skills and use of electronic resources by academic staff in federal polytechnic Ede.

The result of hypothesis one, as shown in Table 8 revealed that the relationship between information literacy skills and use of electronic resources by the academic staff was positive and significant (r=0.442; P< 0.05). The significant p-value is 0.000, which is less than the 0.05 cutoff. As a result, the alternate hypothesis is accepted. This implies that there is a strong link between information literacy skills and the usage of electronic resources by the staff. In other words, there is a significant and positive link between information literacy skills and electronic resources among the staff. A higher level of information literacy is associated with greater use of electronic resources.

**H<sub>2</sub>:** There is a significant relationship between computer self-efficacy and use of electronic resources by academic staff in Federal Polytechnic Ede.

The result of the hypothesis shown in Table 8 revealed that there was a positive and significant relationship between computer self-efficacy and use of electronic resources by the academic staff (r=0.525; P< 0.05). The alternate hypothesis, which states that there is a significant relationship between computer self-efficacy and use of electronic resources by the academic staff is accepted since the P is less than the 0.05



level of significance. This implies that there is a significant relationship between computer self-efficacy and academic staff usage of electronic resources. In other words, if computer self-efficacy increases, there is a likelihood that the academic staff will enhance their utilization of electronic resources as well.

**H<sub>3</sub>:** Information literacy skills and computer self-efficacy will have significant joint influence on the use of electronic resources by academic staff in Federal Polytechnic Ede.

The result in Table 8 on the independent variables (Information Literacy Skills; Computer Self-efficacy) were regressed against the dependent variable (Electronic resources use) using multiple regression analysis. The table revealed that information literacy skills and computer self-efficacy had positive and significant influence use of electronic resources by the staff. . The R<sup>2</sup> value was also 0.203, indicating that the two variables together accounted for 20.3% of the influence of the usage of electronic resources and that additional factors not included in this study may have accounted for the remaining variation. As a result, the alternate hypothesis (H<sub>01</sub>) is accepted. This finding shows that in order for electronic resources to be used efficiently, academic staff should have a high degree of computer self-efficacy and information literacy skills.

### **Discussion of the Findings**

Academic staff at Federal Polytechnic Ede regarded many types of electronic information resources as necessary for academic, research, and community service purposes in the course of their employment. As a result, lecturers in the polytechnic used e-mails, e-journals, e-books, and e-newspapers the most, while e-data archives and manuscripts were used the least. This finding supports those of Olabode (2016) and Owolabi et al. (2016), who found search engines, e-newspapers, Internet services, e-mail services, online databases, and electronic databases as the most used by academics in Nigeria. This is also in line with Uzuegbu *et al.* (2012) and Ezema(2017), who found that lecturers commonly use electronic information resources in Nigerian universities for their research.

The findings indicated that lecturers in Federal Polytechnic Ede utilized electronic resources for various functions, but most crucially, to access e-mail, do research, and deliver lectures without resorting to using them for leisure. This finding supports Tella et al. (2017), who found that academics frequently use EIRs for research, curriculum creation, and self-educational development. Furthermore, the findings of this study support those of Iroaganachi and Izuagbe (2018) and Izuagbe *et al.* (2016) that academic staff are enthusiastic about using EIRs for teaching and research. However, it is crucial to highlight that efficient use of EIRs is entirely dependent on the competency of lecturers, the availability of computers, a reliable power supply, network connectivity, and Internet access (Simon & Ogom, 2015), which are often a challenge in Nigerian campuses (Adetayo & Williams-Ilemobola, 2021).

Most academic staff at Federal Polytechnic, Ede utilized specific electronic resources more frequently than others, such as e-mail, e-journals, and e-books, but the overall frequency of use of the resources was found to be high. This finding is consistent with those of Ani et al. (2015), that lecturers mostly use e-books, e-theses/dissertations, e-journals, e-conference papers, online databases, CD-ROM databases, e-conference papers, and e-newspapers/e-magazines. These resources provide lecturers with knowledge that extends outside the confines of their university. With the development of EIRs, the traditional barriers of geographical location and time have



been removed, resulting in greater global information access and intellectual engagement among academics from both developed and developing countries worldwide. To support this, Owolabi et al. (2012) found that EIRs had become a vital asset in the educational sector, significantly boosting access to research output, teaching, and learning.

The academic staff at Federal Polytechnic, Ede had a high degree of information literacy skills in nearly all information literacy elements, except content creation in *blogs*, *YouTube*, and personal websites for students. Similarly, a strong and positive relationship was established among the lecturers between information literacy skills and electronic resources. It found that a greater degree of information literacy skills resulted in a higher level of utilization of electronic resources. This supports Grgic's (2016) contention that scholarly communication is impossible without adopting IL skills—scholars from all disciplines must know how to search for information, assess it, and generate and communicate new knowledge in a correct, ethical manner. According to Onuoha and Adetayo (2015) and Adetayo, Komolafe and Olalere (2022), a lack of information search abilities causes individuals to be late and frustrated while attempting to finish course-related activities that need research.

The level of computer self-efficacy of academic staff in Federal Polytechnic Ede was found to be moderately high. Furthermore, there is a significant relationship between computer self-efficacy and academic staff utilization of electronic resources. This backs up Adekunjo et al. (2018)'s claim that individuals with low confidence in their abilities to utilize computers perform worse on computer-based activities. This is also consistent with the findings of Sadiku and Kpakiko (2017) that people with better computer self-efficacy are more likely to use e-resources.

### **Conclusion**

The study established positive correlations among the variables of interest, indicating that there is an urgent need to capitalize on the opportunities provided by the relationships. This will improve the use of e-resources for the betterment of lecturers' academic activities and research endeavours and eventually translate to better service delivery to the lecturers and the generality of higher institutions in Nigeria. The study's findings revealed that information literacy skills and computer self-efficacy were key elements that might affect and explain academic staff's usage of e-resources at Federal Polytechnic, Ede. As a result, academic institutions that suffer from poor utilization of e-resources among their academic staff should take a cue from this study and improve their academics' information literacy skills and computer self-efficacy.

### **Recommendations**

As a result, the study recommends as follows:

1. That high levels of computer self-efficacy among lecturers be harnessed by using computer devices and applications to deliver lectures, offer assignments, tutorials, lectures, and practical sessions for students.
2. Although the lecturers at the Federal Polytechnic were found to have a high degree of information literacy, there is a need to develop this and channel it into academic and research activities. This might be accomplished if the Polytechnic library integrated applications such as mobile apps via which lecturers, particularly those from the FPE, could access the most recent library collection and databases without visiting the library.



3. It is necessary to conduct frequent orientation for academic staff to maintain the level of information and computer literacy skills to get the most out of them and be in sync with global best practices.

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## **LEVERAGING ON ELECTRONIC GOVERNMENT INFORMATION PLATFORMS FOR THE PROVISION OF GOVERNMENT SERVICES: A TRANSFORMATIVE POTENTIAL IN NIGERIAN PUBLIC SERVICE**

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### **ABSTRACT**

*Due to the rapid development of information and communication technology, the previous few decades have seen extraordinary changes in every aspect of society. This abrupt change has increased residents' expectations for better lifestyles in both developing and developed nations, spurring innovation in the public sector to strengthen it. Governments, all across the world, have opened their websites in response to the democratisation of the states, applying comparable concepts and technologies to the government to publish information more effectively and provide public services more successfully. Although electronic-government information platform (e-GIP) is a crucial platform for citizen engagement in politics and decision-making, early e-government practices tended to neglect democratic goals in favour of e-business and information system capabilities. There have been increasing numbers of accusations that the provider's perspectives have shaped the e-government system's design. This paper, therefore, argues that E-GIPs should encourage democratic processes that involve dialogue and coproduction in addition to information exchange and the delivery of better public services in light of the theoretical implications of this. The purpose of this study is to look into the factors that enable E-GIPs to live up to their claims, which include their origin, scope, role status, potential benefits, and challenges. It has become imperative that the Nigerian government should make use of E-GIPs to expand new concepts, improve oversight, provide an easy review, and increase the impact on businesses and citizens.*

**Keywords:** E-governance, Electronic government information platforms, Information and communication technology, Public service

### **Introduction**

E-government is the use of information and communication technology by the government to connect with citizens, businesses, and other governmental agencies (Wide Area Networks, the Internet, and mobile computers). It results from ICT penetration of the governmental sector. E-government transforms the conventional and well-known form of governmental operations, services, and structures into a new form,



which has a big impact on how individuals interact with governmental services online (Kim & Kim, 2021). More and more governments are using information and communication technology, especially the Internet or web-based apps, to provide services between governmental organisations and individuals, businesses, employees, and other nongovernmental entities. E-government heralds the coming of big technology innovation and a reinvention of government, much like e-learning, e-health, and e-commerce have done (Joshi, 2019).

In particular, web-based applications are used by the government to provide organisations and citizens with access to information and services from the government, to improve the quality of those services, and to increase and provide more opportunities for citizens to participate in democratic institutions and processes (MacDonald, Nnaji & David, 2022). The administration of government through the use of ICT aims to make communication between government and citizens (G2C), government and business enterprises (G2B), and inter-agency relationships (G2G) more friendly, convenient, transparent, and inexpensive. Lack of accessibility to information about governance has had a significant impact on unsuccessful e-government project implementation in developing countries, where only approximately 15% of the citizens were participating (Zeebaree & Aqel, 2021). European countries are leading the development of e-government globally; the Americas and Asia share almost equal standing in high and middle e-government index levels, and many African countries continue to struggle to improve their e-government standard (Mingst, Karns & Lyon, 2018).

From the mid-1990s onward, there is a growing consensus among governments across the globe of the need to change public administration and services from manual methods to electronic operation to facilitate customer-centred, cost-efficient delivery and user-friendly services to citizens and businesses, thereby improving the quality of governmental activities. Public administration emphasizes how ICT can be used to support transformational change in governmental functions globally to achieve efficiency and cost-effective service delivery to citizens (Balisany, Özgüt & Rjoub, 2022). ICT have productively transformed the provision of traditional government services into an electronic governance process. Tang, Hou, Fay and Annis (2021) emphasised that this socio-technological development has led to organizational transformation, the adoption of political administration and the public apparatus. The initiation of e-government provides an extension for the use of e-government information platforms (e-GIP), these platforms provide benefits such as convenience, efficiency, lower costs, increase productivity and transparency for its stakeholders. This innovation enables not only electronic services but also contemporary government activities to become a reality, especially at all levels of society.

#### **Development of e-Government Information Platform in Public Service**

This e-GIP emerged from the concept of e-government and it is an institutional approach which focuses on carrying out decisions related to information service delivery. It is the use of ICT to transform the traditional public sectors by making them accessible, transparent, effective and accountable. The revolution in the operations of government has greatly changed the pattern of interaction between government and citizens which had also turned into a new phase called e-GIP. The word e-GIP is an Internet-based tool used to facilitate communication and interaction of information between the government and the public. It is a means by which government can reach



out to people electronically. It is also an online system by which government can pass information and receives feedback or the easy system of citizens performing their civic duties and responsibilities without having to meet government officials or workers directly.

According to Moreno and Martínez (2019) the term e-GIP is synonymously called Government Official Websites (GOW) and it is becoming a global phenomenon attracting the attention of political actors, policymakers, practitioners, academicians and ordinary citizens. E-GIP is thus, the use of ICT tools to improve the activities of public sectors, and organizations and allow online services (including electronic information and electronic transactions) to be available to different stakeholders in the country. The so-called E-GIP has been a common phenomenon among public organizations to support their administration and governance that covers effectiveness, efficiency and transparency. It promotes interaction between authorities and their stakeholders that enable integrated information service, assures easy access and convenience, and opens the chance for voice participation instrumental for information service improvement and checks that all grasp service quality.

Oyewole, Omotayo and Nwobu (2018) affirmed that in Nigeria, the government of Lagos State, which is the economic nerve centre of the country, has launched an e-GIP to render information services and projects vital information to the citizens in the state. The information platform is called the Citizens Gate App, aligning more with the Government to Citizen (G2C) mode. The platform was created to serve the people of Lagos State better and interact with them more, to deliver more dividends of democracy. Due to the massive amount of internally-generated revenue in the state, the government of Lagos State seems to have the financial support that is needed to keep this laudable idea running. Abasilim, Gberevbie and Ifaloye (2017) also examined the views of scholars that e-GIP services could be carried out on a basis of; G2C, Government to Business (G2B), Government to Government (G2G) and Intra-government. G2C provided the information platform whereby the citizens can easily access needed information about government services. G2B enables the government to communicate with those in the private sector of the economy. G2G focuses on the exchange of information among those at the government level in the local, state and federal establishments. Intra-government relates to the exchange of information among the different departments at each level of government.

### **Scope of e-Government Information Platforms in Public Service**

According to Nwinyokpugi and Bestman (2020), the scope of e-government revolves around e-participation, e-education, e-registration, e-mobilization, e-service delivery, e-policing, e-feedback, e-taxation, e-debate, e-health and the analysis of public financial statements. However, e-government has become a network of organizations such as the government, non-profit organizations, and private institutions that work together to achieve a common goal. Lee-Geiller and Lee (2019) posited that the primary aim of ensuring the application of e-government in the affairs of government is to promote good governance which is characterized by equality, partaking in the democratic process, transparency, and accountability in the various sector of the nations. Mostly, e-government evolved based on the revolution in ICT which finds expression in digital technologies such as; the internet, mobile phones, personal computers and different electronic platforms. The emergence of these technologies enabled the easy transaction of services between the government and





other areas of society (Bonina, Koskinen, Eaton &Gawer, 2021).

In other words, the primary focus of the government is on the managerial process of an organization using e-GIP. Amuche (2019) asserted that the basic focus of e-government is the internal utilization of information and internet technologies in the management of certain resources such as capital, human, material, and machines, which are deployed to aid administrative processes in a public organization. Chinedu and Hussaini (2018) submitted that e-governance analyses the whole component of the inter-relationship and networks which exists between the government and other institutions present in the state with regards to the use and application of ICT. As such, e-government is an approach which studies the processes involved in the administrative relations existing in a public organization.

ICT and its application in recent times have paved the way for many opportunities for human and economic development within various nations in the global community. The Reports of the Economic Commission for Africa (2012) observed that within the framework of the World Summit on the Information Society (WSIS), national governments, together with the stakeholders at the national, regional, and international levels are engaged in conceptualizing and deploying ICT in governance to support development. It is on this note that scholars have agreed that a global comparison of E-GIP indicators can assist individuals to understand the status and nature of e-governance in nation-states. Since the establishment of the United Nations e-government survey, the programme has taken up a comprehensive method of analysing e-government initiative status based on the extent to which online service delivery is made available in a nation, the level of telecommunication infrastructure and the state of the human capital index of a nation (Fasheyitan, 2020).

#### **Role of Electronic Government Information Platforms in the Public Service**

Chohan and Hu (2020) asserted that ICT has been described as a tool for changing society electronically. The global community projected e-government as a more reliable means of operating government businesses through the utilization of information and communication technology in improving transparency, ensure the provision of adequate information to citizens, improve efficiency in administrative processes and ensure the availability of public services (Malodia, Dhir, Mishra & Bhatti, 2020). Instructive was the assertion by Gberevbie, Ayo, Iyoha, Duruji and Abasilim (2015) that the primary focus of e-government in administrations is to ensure that the citizens have stress-free access to government information services. Thus, the cumbersome process of following bureaucratic processes is avoided at all costs. Grigalashvili (2022) opined that e-government is a concept that involves the deployment of ICT by various government agencies and Public society in promoting the frequent participation of citizens in the governing and administrative process of political institutions.

No doubt, transformation in government services has been driven drastically through the avenue of ICT, which is increasingly recognized as a key facilitator for transforming public governance. The result of the adoption of ICT in the public service is to create a more robust and satisfying picture of government activities (Ncamphalal, 2019). Some of its benefits include enhancing flexibility, mobility, dynamism, transparency and increasing efficiency. E-GIP is essential for increasing revenue, promoting competitiveness, and enhancing marketing in the public sector (Dyussenov & Almeida, 2021). The concept of e-GIP is increasingly accepted by various information



practitioners, academicians, governmental organisations and non-governmental organisations. Governments around the world are embracing e-GIP ranges from local, state, and federal levels, which explain its importance and fast-spreading nature (Omar, 2020). In this regard, e-GIP is fundamentally considered a governmental innovation and evolutionary phenomenon for transforming government organisations into more citizen-centric and efficient public services. It also ensures that the people have access to the activities of the government around the clock as an integrated and single entity (Oyewole, Omotayo & Nwobu, 2018).

However, this platform encompasses a broad vision of the utilization of ICT in government businesses with the primary aim of encouraging greater participation in the state, as well as enhancing the relationship between the government and citizens using various electronic mediums. According to Roblek, Bach, Meško and Bertonce (2020), e-government is of recent origin and emerged at the beginning of the 21st century. In the early days of its development, its system initiative was part of e-commerce in the public sector, which followed the evolutionary e-business evolving model where the focal point of e-services was an easy representation of graphic-user interface with no mutual or reciprocal action. Maddah (2015) observed that the acknowledgement that e-government gained, prompted scholars to turn their focus to a skillful and effective assessment of the roles in which such services could aid in enhancing the provision of government services.

#### **Potential Benefits of e-Government Information Platform in Public Service**

This era is the age of knowledge, where information has become a key resource in life and becomes very important in all public and private sectors. Lack of awareness about the potential of e-GIP and its benefits is an important criterion linked to the process of adoption and use by the people to realize its value. E-GIPs have been created by the information community to access and share information in an easy way to make our life much better. Information holds a prominent role in most sectors like education, medical services, banking applications, and agriculture, down to the small details concerning the citizen's life, which is the backbone of economic life (Javed, Shahzad, Rehman, Zikria, Razzak, Jalil & Xu, 2022). Governments in developed countries around the world have created and raised public awareness of e-services in several ways. They have conducted several community outreach activities to raise awareness and adoption of e-GIP initiatives such as road shows, competitions, promotions, online marketing, marketing with government departments, market awareness surveys and rewarding the users of these platforms (Al-hashmi, 2013).

Recently, the advancements in ICT played a crucial role in harmonizing people and services in the digital world. It has become one of the components of managerial reforms around the globe (Al-hashmi & Suresha, 2013). E-GIPs are a relatively new area that is concerned with the use of ICT by government agencies to deliver their services electronically to the public (World Bank, 2012). However, the success of such initiatives is dependent not only on government support but also on people's willingness to accept and adopt (Kurfalı, Arifoğlu, Tokdemir & Paçin, 2017). Governments around the world are ensuring their possible best to maximise the potential benefits of E-GIP to their citizens but it is still facing greater challenges. In Nigeria, the challenges are mostly related to a lack of awareness, acceptance and contribution from the government. As a result, little attention has been given to the government's perspectives. It is not known whether the public is aware of E-GIPs and their services



and whether the government is going to accept and adopt the newly proposed services.

Alahakoon and Jehan (2020), e-GIPs are concerned with the use of ICT by the various government agencies to enhance accountability, flexibility, mobility, and ensure transparency in the management of government businesses. It is also a political strategy through which the activities of the government are made public through the adoption of modern communication technologies (websites, blogs and web portals). Wrobel and Taschek (2020) asserted that e-government is a broad concept that analysis and accesses the effects of technologies on the administration of governments, and the inter-relations which exist between the public servants and the larger society. It also aims at achieving certain objectives such as enhancing government operations, particularly in the public sector, improving the delivery of public services and encouraging effective participation of citizens in the decision-making processes of the nation.

According to Mensah, Vera and Mi (2018), the e-GIP service delivery index can be analysed using a five-stage framework. They are; the emerging stage, the enhanced stage, the interactive stage, the transactional stage, and the Internet stage. Mogale (2021), further elaborate on these stages. According to them, the emerging stage is a stage where the presence of basic government information is small in scope and pertains to only specific issues. In this stage, the e-government online presence consists of official links to ministries, departments, parastatals, and regional/local governments. Some important documents such as the constitution and certain policy statements are also uploaded online in this stage. Under the enhanced presence stage, the government ensures that certain selected public policy documents such as e-government policy statements, specific education and health policy statements, as well as government sources of current and anchored information are made available to the citizens. The interactive stage ensures that the government's Internet services are capable of influencing and acting on each other while providing online services that will be suitable for each citizen. Such downloadable documents as forms for payment of taxes, license renewal, and bills payment are found on this website.

These web platforms are expected to be updated regularly to ensure the presence of more recent information and statistics. The transaction stage allows a dual interaction between government and citizens. This stage creates an avenue for the citizens to pay for important government services online, while those who are responsible for providing goods and services are allowed to bid their goods online through links that are adequately secured. The final stage of online service delivery is the stage of network presence which represents the most sophisticated level in e-government. Under this stage, the government and its agencies provide citizens, businesses and other Public organizations the opportunity to participate, deliberate and make important decisions, and at the same time, the government is ready to involve every sector of the society in a dual discussion to promote unity among members of the society. Through the process of interactions, the government persistently request citizens' views on certain governmental procedures such as the policy-making process, law-making process, democratic process and finally, the decision-making process of government.

Mogale (2021) asserted that assessing the level of a nation's e-GIPs structure is identifying the capability of a nation to possess the six primary measures of a country's ICT infrastructural components. These components include; personal computers,



Internet users, telephone lines, online population, mobile phones and televisions. They finally explained that the information used to analyse the human capital index of a country relies on the data provided by United Nations Development Programme (UNDP). The index is based on the level of adult illiteracy rate and the gross enrolment ratio of primary, secondary, and tertiary institutions with two third weight given to the literacy rate of adults and one-third according to the gross enrolment ratio. According to the United Nations Global E-government Readiness Report (2005), the assessment of the status of e-government in member countries of the United Nations has been taking various dimensions. On this basis, the level of e-GIP readiness is a product of the country's economic, technological, and human resource development.

### **Status of e-Government Information Platform in Nigeria Public Service**

United Nations e-government survey (2014) pointed out that the methods employed in using e-governance status have remained the same in other survey periods; however, certain components have been updated to reflect new government strategies. This is the only global report that assesses and analyses concretely the status of e-governance among 193 member states of the United Nations (UN). Adah (2015) pointed out that the income level of a nation to a large extent aids in promoting the usage of e-GIPs. Thus, the income level is an analysis of economic capacity and progress, access to ICT infrastructure, and provision of electronic education. The report however presents the fact that the financial status of a nation does not make certain the establishment of e-governance in any society. Some countries in the world have, to a large extent improved their level of e-government status despite relatively low financial base, just as there are countries which are backward in e-governance despite their relatively high-income level.

Osunji (2020) also pointed out that joint service delivery is now spreading throughout the global community, creating an avenue for government agencies, citizens, Public society and the private sector to partner together in creating new technologies that will foster the growth of e-governance. This transformation towards E-GIPs is experienced in both developed and developing countries like Nigeria, as both strive to reach the prescribed e-government development index of the United Nations. The highlights of the United Nations e-government 2014 reports showed that Nigeria is among the 74 countries ranked as those with middle e-government development index. The report further revealed that those middle-ranked countries, of which Nigeria is inclusive, specifically deliver information services through mobile devices. The middle-ranked countries are also characterized by low adult literacy rates and little education which in turn poses a challenge to e-governance advancement. The United Nations e-government Report (2014) stated that the progress in Africa is relatively slow and uneven. Nigeria is ranked as number 19th among the top 20 countries in Africa in the e-government development index ranking.

Nigeria is regarded as the giant of Africa in the International System; this attribute is a reflection of its enormous population and not necessarily because of its growth in information technology. Adeyemo (2013) pointed out that there have been contradictory views of Nigeria's level of development and economic potential in the International community. This contradiction usually manifests itself in the low level of rankings it always receives from various surveys made by international organizations. Nigeria, like every other nation in the global community, is striving to achieve a standard where e-GIP becomes the order of the day. However, it has set for itself the goal of developing



its ICT structure to a level, where e-GIP becomes an avenue for sending and receiving information from one sector of society to the other. Aneke (2019) observed that Nigeria has employed various methods to boost its ICT sector, thereby making Nigeria's e-GIP and ICT sector one of the fastest-growing markets in the African continent. He further opined that the country needs to introduce e-GIPs in all spheres of society to ensure the efficiency of public services and the free flow of information from one sector to another.

### **Challenges of the Implementation of e-Government Information Platform**

The UN e-government survey, (2012) confirms that Nigeria started the computerization of government services in the 90s and recently jumped into the world of E-GIP with the creation and maintenance of organizational information platforms by several federal ministries, and state governments and other public agencies. Despite over 51% teledensity and more than 72 million active GSM subscribers in 2009 and a heavy lift to over 82% of teledensity in 2013 (Chohan & Hu, 2022), Nigeria remains one of the most backward nations in the area of e-GIP. This is large because Nigeria like most other less developed nations is in the world of ICT as a consumer of finished products and not a producer or even modifier. In recent years, however, the country is jumping into the circle of e-GIP with marked successes and heavy challenges to overcome. As observed during the literature review, most government agencies all over the world are in different phases of development to drift their conventional methods architectures to more horizontally and vertically integrated architectures.

Nigeria is now dealing with a variety of difficulties with the implementation of e-GIP. It is commonly known that Nigeria's efforts to build an e-government information platform face difficulties. One is the socioeconomic shortcomings that are present in Sub-Saharan African nations. Other issues include weak organisational abilities, insufficient infrastructure support, and poor or insufficient human capital resources (Cheshmehzangi, 2020). Initiatives for a local e-government information platform have also been studied, but from a macro perspective where policies and initiatives have been identified and their effects have been assessed using surveys (Udofia & Echor, 2019). Some leaders still need to comprehend the connection between efficient governance and e-GIP. To encourage changes in political thinking and culture, advocacy and awareness raising are necessary. Developing and maintaining government capacity to manage the relationship with the private partner in projects as well as the changes related to the switch from traditional to digital systems is a significant problem. In addition to lacking the necessary expertise and funding, there have been issues with government institutions not treating e-government contracts with enough respect.

If the public is unaware of the existence of e-GIP and does not find the gateway to be helpful, the government will not be able to use it to provide high-quality information. Ukwuoma, Cirman and Oye (2022) claim that several obstacles face emerging nations, slowing the spread of initiatives involving e-GIP. Some of the obstacles, such as poor organisational, political, economic, and social problems, have their roots in the cultural orientations of the area. We refer to supply-side obstacles as any impediment that discourages governments from creating new or improving existing e-government apps (Chohan, Hu, Si & Pasha, 2020). Another significant obstacle for e-government information platforms is the absence of coordination among governmental organisations. Although each ministry has its website, there is no connection between



them and a standardised system. Consequently, the system is not interactive. Additionally, the Internet ecosystem lacks information. On the websites of the public administration authorities, not all the information that should be accessible to the public is available. Although not all of the documents are available in the languages required.

Additionally, there is a lack of collaboration between public and private sector organisations. The ability, the technology, and the skilled employees are available in the private sector. However, this knowledge has not been effectively applied to the requirement for the deployment of an e-GIP in public administration. The bureaucracy is unwilling to use e-government resources (Sarker, Wu, Liu & Ma, 2018). Generally speaking, bureaucracy is resistant to change. The bureaucracy perceives the installation of an e-government information platform as a danger because it believes that widespread internet usage will lessen its position as the dominant force. Additionally, there is a dearth of formal education regarding internet and computer usage, which is typical in the public sector. The needs of this Information Age have not been taken into account when developing school curricula. As a result, there is a lack of instruction in schools about how to use computers and the internet. The field of E-GIP also lacks a legislative structure. Regulations that protect privacy and personal information, include provisions for offences involving information technology in the Penal Code, and protect intellectual property rights do not adequately address the needs resulting from advancements in telecommunication technologies.

The public servants in Nigeria, developed along with the modern state to assist the government in formulating policies as well as efficiently implementing them through various mediums. In this aspect, public servants are an institution tasked with creating, articulating, and carrying out a public policy as well as carrying out governmental duties and development programmes effectively and efficiently. Development initiatives and governmental policies are endangered in many African nations, particularly Nigeria, by the inadequacy of information communicated to the populace and the inefficiency and incompetence of the public service. Because of this, Nigeria's successive governments, from the time after independence to the present, have implemented articulated patterns and different information systems to reform the public service and increase its effectiveness and efficiency. The service is nevertheless ineffective and unable to transform itself (Adeyemo, 2011), and it is plagued by a lack of control, redundancy, weak accountability, low professional standards, waste and corruption, low productivity, and inadequate governance structures.

### **Conclusion**

The main challenge in adopting e-GIP in any developing country is assessing whether the intended objective of reaching the population is met. The platform should be accessible to everyone who requires governmental services, irrespective of their location, age, status, language, or Internet access. E-GIP also have the potential to lessen or remove obstacles to coordination and cooperation within the Nigerian public sector. The government, both as authorities and as frequent Internet users, will play a far larger role in the growing involvement of the internet in our economy and society. The government will also have to cope with several modern, complicated issues that will put all parts of their higher cognitive function to the test. The interaction between the government and the nation as a whole will be more influenced by technology. Rapid technology innovations' impact on the market will inescapably require a thorough reevaluation of the existing legal and communication frameworks. The government's



fundamental advantage is its capacity to compile and maintain visibility over vast areas of knowledge about its people and, subsequently, the services they depend upon. The government may now codify this information and make it available to the public as repositories of such extraordinarily rich data sets for analysis, which may lead to improved services and outcomes for citizens. The push to replace manual processes with technology has increased administrative efficiency as well as government convenience and service. It has become imperative that the Nigerian government should make use of e-GIP to expand new concepts, improve oversight, provide an easy review, and increase the impact on businesses and citizens.

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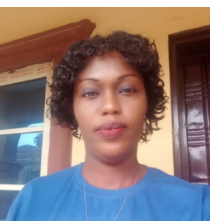


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## **PERCEPTION OF LIBRARY RESOURCES ACCESSIBILITY FOR IMPROVED LIBRARY PATRONAGE BY UNDERGRADUATES IN UNIVERSITY OF IBADAN, NIGERIA**

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### **ABSTRACT**

*The goal of any library is to enable users have access to the available resources and maximise usage. The provision of effective and efficient library resources is connected to high level of library patronage. The low level of patronage experienced in some academic libraries may be unconnected to disorganized library resources on the open shelves and other locations, which may result in poor accessibility, low patronage and underutilization of library resources. The main objective of the study is to examine perception of information resources accessibility and library patronage by undergraduates in University of Ibadan, Nigeria. The study employed the descriptive survey design. Three faculties with the highest numbers constituted the study population. A sampling fraction of 5% was used to select the sample size from the selected faculties, which produced a sample size of 213 that was used for the study. Data collected was descriptively analysed with the aid of SPSS version 23 and results were presented in frequency table and percentage counts. The study's findings revealed that the information resources that were readily available to the respondents include: textbooks, Abstracts/indexes, encyclopedias/dictionaries, and maps. The respondents indicated that these resources were frequently used and that access to them enhanced their studies. Findings further revealed that inadequate funding, unavailability of resources, lack of provision of online information service and lack of access to information materials were the major factors militating against the use of library resources. The perception of library users as regards how accessible information resources are is critical to the use of the library for different purposes. It is therefore important for library management to do all within its power to ensure that information resources are not only acquired, but are also made readily available and accessible, so that their effectiveness could be made manifest to all users.*

**Keywords:** Perception, Library resources, Accessibility, Library patronage, Undergraduate

### **Introduction**

Regardless of types, libraries play a very important role and provide essential services to universities and other academic institutions. Therefore, the primary purpose of a normal library is to make all books, magazines, and other reading materials available to undergraduates and other learners whenever they choose (Mogaka, 2019).



Undergraduates can access library resources in a typical academic library that they will find valuable and interesting. Print and non-print formats of information are available in library resources, including books, journals, indexes, newspapers, magazines, reports, the internet, video tapes, diskettes, and microforms. The essential building blocks for the delivery of essential services in the teaching and learning process are library resources. Undergraduates' use of library resources is crucial for their academic commitments and other educational advances in order to meet the established learning objectives. To accomplish these goals, undergraduates should have timely access to library materials in formats that will encourage high usage. Academic libraries' traditional responsibilities include making relevant, reliable, and current information sources available to support teaching, learning, and research, among other duties (Oyedipe, Adekunmisi, Ajiboye, Olanrewaju, & Adesoye, 2018).

Additionally, the primary objective of an academic library is to provide access to its vast collection of information resources to undergraduates and other user groups. Information resources are effective when they offer reliable, helpful, and pertinent information that can assist undergraduates in resolving their problems. The availability of library materials fosters a conducive climate for undergraduate students to use them. It is believed that making the library's information resources available to undergraduates will increase patronage and allow for more efficient learning and studying. It was assumed that undergraduates would make efficient use of the various library resources to achieve qualitative learning as well as academic and research excellence in order to have access to the high-quality library resources and services offered by academic libraries. As a result, having positive perceptions of and access to libraries' resources and services is extremely desirable since it ensures the quality of university education and the generation of graduates who are informed and computer savvy (Oyedipe *et al.*, 2018).

Hence, to impact undergraduates' perceptions of library resources, allow effective patronage, and maximize the use of these resources, academic libraries should offer access to their available library resources as well as competent professional help. Until they are completely accessed and used, library materials are of no use to students. Time might be lost and frustration experienced if they are difficult to find, access, and retrieve in the library. Such time wastage and irritation could have an impact on how they view libraries and their resources, thereby preventing undergraduates from visiting and using them. The quality of learning and research output by undergraduates in any institution depends to some extent on accessibility, patronage and utilisation of library resources available in their institutions' libraries. In other words, resources accessibility, patronage, and usage are essential to undergraduates. It is on this premise that this study would be carried out to investigate perception and library resources accessibility as correlates of library patronage by undergraduates in University of Ibadan, Nigeria.

### **Statement of the Problem**

The availability, use, and patronage of a library's materials determine its relevance to students. It goes without saying that a library with easily accessible resources will attract patronage. In order to address the requirements of their patrons, libraries acquire resources. Despite management's best efforts to outfit some academic libraries in higher education institutions, studies have revealed that these library resources appear to be inaccessible and therefore, underutilized, which causes undergraduates to have a negative perception of the libraries and their abundance of resources. In some



cases, where these resources are found, access to them is always a challenge to undergraduates and other researchers. In some academic libraries in Nigeria, previous studies established that a large portion of library resource are not properly arranged due to shortage of staff. Hence, the level of access, patronage and utilisation of library resources in university libraries cannot be determined or made known. This is the gap in knowledge that this study intends to fill.

### **Objectives of the Study**

The broad objective of this study is to examine perception of information resources accessibility by undergraduates in University of Ibadan, Nigeria. The specific objectives of the study are to:

1. examine out the types of information resources available to undergraduates in University of Ibadan, Nigeria;
2. investigate how accessible the information resources are to the undergraduate in University of Ibadan, Nigeria;
3. establish the frequency and purpose of using information resources by undergraduates in University of Ibadan, Nigeria; and
4. identify the constraints being encountered in the use of information resources by undergraduates in University of Ibadan, Nigeria.

### **Research Questions**

The following are the research questions for the study:

1. What is the perception of information resources accessibility by undergraduates in University of Ibadan, Nigeria?
2. What are the types of information resources available to undergraduates in University of Ibadan, Nigeria?
3. What is the purpose of information resources use by undergraduates in University of Ibadan, Nigeria?
4. How often do undergraduates in University of Ibadan, Nigeria use information resources?
5. What is the level of accessibility to information resources by undergraduates in University of Ibadan, Nigeria?
6. What are the constraints being encountered in the use of information resources by undergraduates in University of Ibadan, Nigeria?

### **Review of Related Literature**

#### *Perception of Information Resources and Library Patronage by Undergraduates*

A large number of studies have been conducted on the perception of information resources and library patronage by undergraduates. For instance, finding from the study of Adegun, Akinola, Adepoju, and Oyewumi (2020) revealed that 110 (36.7%) of the respondents indicated that they often find the information they need in the library, also 60 (20%) often find sitting space to read. 30 (10%) of the respondents often do not get the opportunity of using the Internet resources, while 20 (6.6%) showed that the provision of serials materials is inadequate.

The perception of the undergraduates on library resources in LAUTECH Library was accessed in the study of Oyewusi and Oyeboade (2009). The result from the study revealed that the respondents indicated that the library has enhanced their studies



(Mean = 4.19). The results also revealed that the library resources did satisfy their research needs (Mean = 4.18) and that the library is important for their academic work (Mean = 4.07). The respondents also indicated that they visit the library because of available resources (Mean = 3.81). The implication of these results was that the respondents appreciate the role of the library in their studies and the perception of the respondents on LAUTECH library was high. This agrees to what Tsafe (2004) in Oyewusi and Oyeboade (2009) reported in his study where most of the respondents regarded the library facilities as very important in relation to their studies.

Bello (2011) examined the perception of users as regards library holdings. In the study, the library holdings were divided into teaching, learning and research materials, and the respondents were asked to air their view as regards the library holdings. Except very few of the respondents who had a negative perception of the library holdings, other respondents held a positive view; and their general perception with respect to learning materials was convincing and encouraging. Obiozor-Ekeze (2015) examined users' perception of university library resources and services in South-east zone of Nigeria, to determine how users of the university libraries perceive the services rendered to them, the Department of Mechanical Engineering was chosen as the study population, which had the most students seeking for information. The study revealed that university libraries are underfunded, they lack qualified personnel and do not have a general standard that guide the users on how to access library resources

Mahajan (2006) explored the perception of researchers on the effect of accessibility and use of electronic resources on productivity at the Punjab University, Chandigarh, India, across three academic disciplines: Science, Social Science, and the Humanities. It was found that most scientists (99%) agreed on the positive effect of electronic resources on research productivity, whereas about half the social scientists disagreed, while all responses from researchers in humanities (100%) were negative. The article, therefore, concluded that scientists were accessing and using electronic resources more than their counterparts in the social sciences and humanities. Khan and Dominic (2012) conducted a survey to assess the perceived impact of electronic resources on the research productivity of academic staff in the Engineering Colleges of Moradabad, India. The results revealed that 50% of the respondents agreed on the productive impact of e-resources on their research process.

Ambika and Selvakumar (2015) studied faculty perception on library resources and services in Hindustan College of Engineering and Technology in Coimbatore, in which findings showed that the respondents were highly satisfied with the library's Internet facilities, journals, OPAC, books, computer/printer, but not satisfied with gazette, atlases, Abstracts, CD-ROM, and encyclopedia. The dissatisfaction of the respondents with these resources may be due to poor awareness creations on the part of the library, as most libraries centers their awareness campaign on books and journals. In the study conducted by Daramola (2016), undergraduate students perceived that electronic resources at the library were valuable, as they find most of their needed resources at the e-resource section. The respondents further noted, that it is a rewarding experience to use e-resources, as it provided them with current and updated information. The preference for e-resource may be due to its ease-of-use, multi-access points and speed of access



### **Information Resources Accessibility, Patronage and Utilisation by Undergraduates**

Ishola and Obadare (2014) reported in their study on availability, access and level of use of library resources that textbooks, research reports, newspapers, magazines, pamphlet/posters and journals were readily available and accessible. Oyewusi and Oyeboade (2009), on the other hand, revealed that information resources were more accessible on the Internet, and in few cases, the users would be requested to pay certain amount to access the resources. This suggests that the users have high preference for Internet based electronic information resource, which is the area most academic libraries not spend a large trunk of their annual budget on. And for the users to be requested to pay before accessing information resources suggests that the library has limited access to, or its subscription does not cover the resources. In the same vein, Dadzie (2005) investigated the use of electronic resources by students and faculty of Asheshi University, and found most of the of respondents used the Internet to access information. In the light of the above, Adeoye and Popoola (2011) suggested that for effective learning process, learners must have access to print and electronic information resources, and were of the opinion that librarians are responsible for providing the right information to the right person at the right time.

### **Challenges to Patronage and Utilisation of Library Resources by Undergraduates**

It could be affirmed that there are several challenges faced by undergraduates in the patronage and utilisation of library resources. Israel (2020) highlighted challenges that inhibit the effective use of library resources, when he examines the use and effectiveness of library resources and reported, that there inadequate reading material and most of the information resources in the library under investigation are obsolete, and the library is poorly ventilated and poor public relations of library personnel. In the study of Daramola (2016), majority of the undergraduates (83.3%) indicated the electronic device/computer as a major challenge. The number of computers at the e-resources section does not commensurate with the number of students in the University. Also, 77.8% indicated that some of the computers in the e-resources section of the library are not utilized due to technical problems. 75% of the students mentioned poor orientation of students as a major challenge while 69.4% stated that poor internet connectivity is a challenge to the use of e-resources in the library. About 35% of the students indicated poor personnel relation as a major challenge in utilizing e-resources in the library.

Findings from the study of Abdullahi, Ahmad, and Ahmed (2019) illustrated the challenges being faced by the users in utilization of the resources in Bauchi State College of Agriculture Library. More than half of the respondents 85(64%) stated that the library has insufficient textbooks and up-to-date information resources while 74 (57%) of the respondents claimed that they were not aware of the available library information resources. Thus, 81(62%) respondents noted that the facilities in the library are inadequate and that discouraged them from using the library, while other respondents 88(68%) stated that the library staff does not attend to them on time. Furthermore, the majority of the respondents 126(97%) expressed that they were not aware of the library's e-books and find it difficult to use the library's electronic information resources.

Fasae, Aladeniyi, Arikawe, and Ayodele (2014) in their study, present the problems encountered while using library by the participants. Inadequate current journals led with



60.00%, poor Internet connectivity (56.27%) and frequent power outages 39.80% followed respectively. Ringing of phone (14.02%) was the least of the problems. The study discovered that inadequate current journals and poor Internet connectivity were leading problems among others faced by students in the study.

The literature review has been able to reveal the perception of users on library resources with particular reference to some of the challenges faced in accessing and using library resources as indicated in the literature. This seems not to be healthy for the growth and continued patronage of the library and the use of its information resources. It is against this background that this study seeks to examine the perception of library resources accessibility and how it relates to library patronage by undergraduates in university of Ibadan

### **Methodology**

The research design employed for this study was the descriptive survey design. The target population for the study consists of undergraduates of University of Ibadan. Three faculties were randomly selected since they all have equal chance of being selected for the study. These include; Faculty of Agriculture and Forestry, Faculty of Education and Faculty of Arts. A sampling fraction of 5% was used to select sample size for each of the faculties. This therefore gave 213 sample used for the study. The data collection instrument used for the conduct of the study was the questionnaire, which was used to survey undergraduates and was tested on perception of information resources accessibility by undergraduates in University of Ibadan, Nigeria. The statistical package for the social sciences (SPSS) version 23 was used for the analysis. Descriptive statistics such as frequency and percentage counts and mean were used to analyse the research questions. The decision rule for the mean analysis was to accept any item with score of 2.50 and above. This means that any item with a mean score lower than 2.50 was rejected.

### **Analysis and Results**

Table 1 presented the results on the demographic information of the respondents. Findings revealed that 300 level students 109(51.9%) participated more in the study. Majority of the respondents were between the age bracket of 20-29. In addition, the female respondents had more representation 111(52.9%) than their male counterpart 99(49.1%).



**Table 1: Demographic Characteristics of the Respondents**

Demographic Characteristics	Frequency	Percentage
<b>Level of Study</b>		
100	26	12.4
200	64	30.5
300	109	51.9
400	10	4.8
500	1	0.5
<b>Total</b>	<b>210</b>	<b>100.0</b>
<b>Age Group (Years)</b>		
15-19	28	13.3
20-24	78	37.1
25-29	78	37.1
30-34	23	11.0
35-39	2	1.0
45-49	1	0.5
<b>Total</b>	<b>210</b>	<b>100.0</b>
<b>Gender</b>		
Male	99	49.1
Female	111	52.9
<b>Total</b>	<b>210</b>	<b>100.0</b>

Table 2 present the analysis of available library resources. Findings revealed textbooks, abstract/indexes constituted the most readily available library resources with a mean score of 3.40 and 3.38 respectively. However, the information resources that was very readily available to majority of the respondents 109(51.9%) were textbooks. Abstracts/indexes and maps were also very readily available with a significant number of the respondents 101(48.1%) and 95(45.2%) indicating this. Similarly, majority of the respondents 94(44.8%) and 93(44.3%) also affirmed that encyclopedias/ dictionaries and newspaper and magazines were very readily available. Thus, the most available information resources to undergraduates were textbooks, abstracts and indexes, maps, encyclopedias/dictionaries and newspaper/magazines.





**Table 2: Availability of Information Resources to the Respondents**

Library Resources	VRA		RA		NRA		NA		Mean	SD
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Abstract/ Indexes	101	48.1	91	43.3	15	7.1	3	1.4	3.38	.683
Bibliographies	83	39.5	105	50.0	21	10.0	1	0.5	3.29	.639
Directories	75	35.7	98	46.7	34	16.2	3	1.4	3.17	.742
Encyclopedias/Dictionaries	94	44.8	75	35.7	38	18.1	3	1.4	3.24	.795
Government publications	65	31.0	95	45.2	41	19.5	9	4.3	3.03	.824
Handbooks/Manuals	74	35.2	100	47.6	32	15.2	4	1.9	3.16	.747
Journals	84	40.0	99	47.1	20	9.5	7	3.3	3.24	.758
Maps/Atlases	95	45.2	79	37.6	33	15.7	3	1.4	3.27	.724
Newspapers/Magazines	93	44.3	104	49.5	11	5.2	2	1.0	3.37	.630
Research/Periodicals	73	34.8	106	50.5	28	13.3	3	1.4	3.19	.711
Textbooks	109	51.9	83	39.5	11	5.2	7	3.3	3.40	.740

Table 3 presented results on the purpose of using library resources and findings revealed that most of the respondents used information resources for the purpose of studying, research, preparing for examination and borrowing books with calculated mean score of 3.65, 3.54, 3.46 and 3.42, respectively.

**Table 3: Purpose of using Library Resources by the Respondents**

Purpose of using Library	SA		A		D		SD		Mean	SD
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
For entertainment and leisure	81	38.6	73	34.8	27	12.9	29	13.8	2.98	1.035
For research purposes	125	59.5	77	36.7	5	2.4	3	1.4	3.54	.619
For studying	143	68.1	61	29.0	5	2.4	1	0.5	3.65	.553
Preparation for examination	121	57.6	65	31.0	23	11.0	1	0.5	3.46	.706
To borrow books	123	58.6	57	27.1	25	11.9	5	2.4	3.42	.793
To consult reference materials and books	123	58.6	65	31.0	18	8.6	4	1.9	3.46	.733
To gain access to recreational materials	94	44.8	88	41.9	25	11.9	3	1.4	3.30	.732
To gain General Information	109	51.9	86	41.0	13	6.2	2	1.0	3.44	.655
To read newspapers/ magazines	83	39.5	109	51.9	16	7.6	2	1.0	3.30	.649
To Update Subject knowledge	108	51.4	89	42.4	9	4.3	9	1.9	.669	

Table 4 showed that textbooks, newspapers/magazines, handbooks/manuals and encyclopedias/dictionaries were the most frequently used library resources by the respondents.



**Table 4: Frequency of using Library Resources by the Respondents**

Library Resources	Daily Freq. %	Weekly Freq. %	Monthly Freq. %	Occasion-ally Freq. %	Never Freq. %	Mean	SD
Abstract/ In-dexes	36 17.1	53 25.2	41 19.5	58 27.6	22 10.5	3.11	1.276
Bibliographies	39 18.6	32 15.2	57 27.1	63 30.0	19 9.0	3.04	1.250
Directories	35 16.7	34 16.2	53 25.2	67 31.9	21 10.0	2.98	1.247
Encyclopedias/ Dictionaries	54 25.7	54 25.7	33 15.7	59 28.1	10 4.8	3.40	1.268
Government publications	23 11.0	48 22.9	51 24.3	70 33.3	18 8.6	2.94	1.160
Handbooks/ Manuals,	43 20.5	87 41.4	19 9.0	49 23.3	12 5.7	3.48	1.215
Journals	26 12.4	69 32.9	51 24.3	53 25.2	11 5.2	3.22	1.115
Maps/Atlases	29 13.8	47 22.4	63 30.0	54 25.7	17 8.1	3.08	1.165
Newspapers/ Magazines	56 26.7	77 36.7	34 16.2	36 17.1	7 3.3	3.66	1.143
Research/ Periodicals	41 19.5	67 31.9	35 16.7	59 28.1	8 3.8	3.35	1.190
Textbooks	102 8.6	50 23.8	35 16.7	20 9.5	3 1.4	4.09	1.077

Findings as revealed in Table 5 indicated that most of the respondents perceived that access to information resources enhanced their studies and that the resources satisfied their research needs. These shows a significant mean score of 3.67 and 3.46. Besides, the respondents further revealed that the library is well located and easily accessible, and they found its resources important for their work.



**Table 5: Perception of Library Resources by the Respondents**

Statements	SA		A		D		SD		Mean	SD
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Access to information resources has enhanced my studies	145	69.0	62	29.5	2	1.0	1	0.5	3.67	.519
I am familiar with information resources available in the library	107	51.0	82	39.0	19	9.0	2	1.0	3.40	.693
I find library resources important for my work	107	51.0	92	43.8	7	3.3	4	1.9	3.44	.655
I visit the library because of available information resources	102	48.6	91	43.3	13	6.2	4	1.9	3.39	.691
Information resources satisfy my research needs	112	53.3	86	41.0	9	4.3	3	1.4	3.46	.650
It is easy to obtain materials on current research areas in the library	82	39.0	112	53.3	12	5.7	4	1.9	3.30	.662
It is very fast and easy to order for materials not in the libraries	85	40.5	62	29.5	56	26.7	7	3.3	3.07	.896
Library in my school is well located and easily accessible	117	55.7	77	36.7	13	6.2	3	1.4	3.47	.679
Obtaining needed (or required) information for research work from library is very fast	74	35.2	115	54.8	17	8.1	4	1.9	3.23	.679
The library staff efficiency is relatively satisfactory	71	33.8	119	56.7	17	8.1	3	1.4	3.23	.653

Table 6 presented results on the level of accessibility of library resources to the undergraduate students. Findings showed that the library resources that were very readily accessible were abstracts, indexes, textbooks, encyclopedias, dictionaries and newspapers and magazines as noted by the respondents.



**Table 6: Accessibility of Library Resources to the Respondents**

Library Resources	VRA		RA		OA		NA		MEAN	SD
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Abstract/ Indexes	108	51.4	69	32.9	25	11.9	8	3.8	3.32	.653
Atlases	52	24.8	118	56.2	32	15.2	8	3.8	3.02	.745
Bibliographies	66	31.4	103	49.0	32	15.2	9	4.3	3.08	.797
Directories	52	24.8	114	54.3	32	15.2	12	5.7	2.98	.794
Encyclopedias/ Dictionaries	77	36.9	103	49.0	25	11.9	5	2.4	3.20	.737
Government publications	60	28.6	105	50.0	36	17.1	9	4.3	3.03	.794
Handbooks/Manuals,	72	34.3	95	45.2	35	16.7	8	3.8	3.10	.809
Journals	74	35.2	93	44.3	37	17.6	6	2.9	3.12	.795
Newspapers/Magazines	74	35.2	101	48.1	32	15.2	3	1.4	3.17	.733
Research/Periodicals	61	29.0	108	51.4	34	16.2	7	3.3	3.06	.765
Textbooks	94	44.8	75	35.7	36	17.1	5	2.4	3.23	.816

Lack of proper funding, unavailability of online information services, unavailability of resources and inadequate infrastructure top the list of challenges inhibiting the use of library resources by the respondent as revealed in Table 7.



**Table 7: Challenges faced in the Use of Library Resources by the Respondents**

Constraints	SA		A		D		SD		Mean SD	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Unavailability of resources	96	45.7	71	33.8	39	18.6	4	1.9	3.23	.817
Lack of proper funding	101	48.1	80	38.1	26	12.4	3	1.4	3.33	.746
Unconducive environment	71	33.8	81	38.6	51	24.3	7	3.3	3.03	.847
Obsolete materials	75	35.7	78	37.1	49	23.3	8	3.8	3.05	.863
Lack of access to information materials	83	39.5	63	30.0	52	24.8	12	5.7	3.03	.935
Inadequate infrastructure	82	39.0	67	31.9	52	24.8	9	4.3	3.06	.900
Lack of provision of online information services	94	44.8	75	35.7	36	17.1	5	2.4	3.23	.816
Unclear shelf arrangement	37	17.6	114	54.3	35	16.7	24	11.4	2.78	.869
Inadequate library opening hours	55	26.2	83	39.5	35	16.7	37	17.6	2.74	1.036
Inconsistent power supply	90	42.9	63	30.0	29	13.8	28	13.3	3.02	1.051

### **Discussion of the Findings**

The broad objective of this study was to examine perception of information resources accessibility by undergraduates in University of Ibadan. In order to achieve this aim, a few objectives were outlined and the discussion of findings follow the research questions asked. Based on the findings, there appears to be a clear indication of a positive and favourable perception of information resources accessibility.

Table 1 revealed the demographic variables of the respondent. The respondents who were at the third year of their academic pursuit, and are between the age brackets of 20-29 participated more in the study, with majority of them been female. Tables 2 and 6 shows, that textbooks, abstracts and indexes, maps, encyclopedias/dictionaries and newspaper/magazines were the most available and accessible information resources to the respondents. This finding tallies with the report of Ishola and Obadare (2014), when they examined the availability, access and level of use of library resources in some selected academic libraries. Findings further revealed from Table 3 that the purpose for which the respondents use information resources included but were not limited to studying, research, preparing for examinations and borrowing books. Arising from the available resources in Table 2 and the purpose for which they were used in Table 3, as well as how the resources were frequently used in Table 4, it can therefore be asserted that the respondents gave priority to the library resources that directly benefited their academic activities, which on the other hand could be said



to be valuable for their academic and personal needs.

The perception of information resources by the respondents in Table 5 shows significant mean scores of 3.67 and 3.46, when they perceived that access to information resources enhanced their studies and that the resources satisfied their research needs. The implication of this findings showed that a very significant proportion of the respondents had a positive and favorable perception of the library resources. This finding agrees with those of Adegun, Akinola, Adepoju, and Oyewumi (2020) as well as Oyewusi and Oyeboade (2009), when they studied the perception of undergraduates on library resources. Table 7 established that the use of the library resources by the undergraduate students have not been entirely devoid of constraints. Some of the challenges faced in using library resources include poor funding, unavailability of online information services, unavailability of resources and inadequate infrastructure

### **Conclusion**

The perception of library users on the availability, accessibility and use of information resources will significantly increase library patronage. Based on the findings of the study, it was therefore concluded that textbooks, abstracts and indexes, maps, encyclopedias/dictionaries and newspaper/magazines were the most available and accessible information resources to the respondents. Among other purposes, the respondents utilized the library resources to study, conduct research, prepare for examinations and borrowing books, which suggests, that the resources caters for the academic and research need of the respondents, as they perceived that access to information resources enhanced their studies and that the resources satisfied their research needs. However, the respondents still perceived, that unavailability of online information resources and services, as well as inadequate infrastructure still hinders their effective use of the information resource and may have a negative effect on library patronage, if left unattended to.

### **Recommendations**

Arising from the study's findings, the following recommendations were made:

1. To have a robust information resources, the library should consider acquiring electronic information resources to support the available print resources.
2. The library should also provide internet facilities to enhance the accessibility of online information resources.
3. For remote library services, the library should provide online information services like 'Ask-a-Librarian', 'live chat module' on the library website and email document delivery services.
4. To improve library patronage, the library should create a library common with lots of aesthetics facilities to encourage the patron to visit the library for the purpose of relaxation and other aesthetic values.



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**PERCEIVED EFFECTS OF ICTS ON CATALOGUING AND CLASSIFICATION OF INFORMATION RESOURCES IN MICHAEL OKPARA UNIVERSITY OF AGRICULTURE LIBRARY, UMUDIKE, ABIA STATE, NIGERIA**

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***ABSTRACT***

*Library automation is no longer new in librarianship. This is because almost the entire operations of the library are experiencing the introduction of ICTs. As to whether there is an effect of this adoption of ICTs in the cataloguing and classification of information resources, is a matter of great concern. This is why the present study investigated the perceived effect of ICTs on the cataloguing and classification of information resources in Michael Okpara University of Agriculture Library, Umudike. Three (3) objectives guided the study. The descriptive survey design with a study sample of 5 respondents representing the entire staff strength of the Cataloguing and Classification Unit was chosen using the complete census sampling technique was used. Data was collected using a combination of an observation checklist and a 23-item questionnaire titled "Effect of ICTs on Cataloguing and Classification of Information Resources" Questionnaire. The analysis and presentation of data were done using frequency counts and mean scores with appropriate tables. The findings show that computers, online databases, and Internet servers are among the ICTs adopted. The perceived effects are seen in the areas of making cataloguing and classification easy and reducing errors in cataloguing and classification, among others. It was further revealed that poor funding of library technical operations, inadequate ICT facilities, inadequate number of ICT-competent cataloguers, etc. were among the factors militating against the adoption of ICTs in the library operation. Based on the findings, it was recommended, among others, that libraries should develop means of generating additional funds to finance most of their projects and services.*

**Keywords:** ICT, Cataloguing, Classification, Information resources, Library

**Introduction**

To remain relevant in the digital era has been the backbone behind the recent growth in the adoption or application of information and communication technologies (ICTs) in the operations and services of Nigerian libraries. Library operations concerned with the application of ICTs are the cataloguing and classification of



information resources. Recalling the views of Akidi and Okezie (2018), ICTs have shown their absolute effect on the entire library system and services and remain a veritable apparatus for the growth of 21<sup>st</sup>-century libraries. Its integration has not only increased the effectiveness in the acquisition of information resources, and made the processes of cataloguing and classification easy, but has made for easy access to information, and the overall diversification of the library services and resources. To this end, ICTs in libraries have enhanced data storage; data and full-text searching, eliminated uninteresting and repetitive work; helped in the avoidance of duplication of efforts; increased the range of services (Chukwueke & Okafor, 2019); and facilitated cooperation and the formation of networks and resource sharing among libraries (Chukwueke & Nnadozie, 2019).

Libraries are charged with the responsibility of collecting, processing and preserving information resources, which must be arranged in an orderly manner so that users can retrieve them without necessarily wasting much energy and time. It is the cataloguing and classification operation that makes this easy as the resources are organized according to their subject areas, authors, titles, year of publication, etc. It is pertinent that any library with millions of volumes of information resources that are not organized for easy retrieval will be judged as having nothing. Corroborating this, Nwalo (as cited in Atanda & Ugwulebo, 2017) observes that a building filled with books is not necessarily a library unless the books have been organized for access and made available for use. It is therefore not an overstatement that cataloguing and classification are referred to as the hallmark of librarianship.

Cataloguing as noted by Nwalo (2003) describes a book and points out its subject contents, which ultimately places it in a subject class while classification involves assigning a class number to a book that corresponds with its subject contents, following a chosen classification scheme. Cataloguing shows vividly the bibliographic details of materials in such a way that a user can easily identify them with ease, even when there is no help coming from staff. It is the process of compiling a catalogue or constructing entries for insertion into a catalogue. This process, however, entails the preparation and maintenance of the catalogue, which includes classification, assigning subject headings and subject indexing. Classification is the act of using a specific classification scheme to assign a specific heading, which corresponds to the subject treatment of a book, so it can be identified in the library.

Consequently, before the adoption of ICTs in library operations and services, cataloguing and classification were done using the manual system. It, therefore, becomes imperative to stand on the practice of manual cataloguing as a premise for building an understanding of the effect of ICT in cataloguing and classification. At inception, cataloguing and classification were not tedious tasks. This is perhaps because there was no explosion in information (Ilo, as cited in Adebayo & Emeahara, 2012). Then, books were organized using length, colour, size and shape. This was not difficult because there were just a few resources. If the same manual system is to be used in this age of information growth and explosion, there could be many problems in an attempt to achieve effectiveness and efficiency in the cataloguing and classification of information resources in most libraries. Consequently, the application of ICT to the cataloguing and classification of information resources involves the identification of the bibliographic features and the appropriate subject headings of an information resource, assignment of appropriate call marks, preparation of catalogue entries, production of



catalogue cards and library catalogue maintenance, among others (Akidi & Okezie, 2018). It also entails using online bibliographic utilities and other electronic devices in the cataloguing and classification of information resources.

Abdullahi, Yunus and Awarri (2011) opine that ICT in cataloguing and classification facilitates the establishment and maintenance of catalogue databases, in addition to making cataloguing practices using online services possible. Bamidele and Olusegun (2017) believe that it has further removed the sluggishness accompanying manual cataloguing and classification as there is no longer delay because bibliographic details are now copied. Also, library software, powered by ICT has provisions for bibliographic entries of books where the library staff makes the entries directly into the computer (Akidi & Okezie, 2018), thereby, saving the time and energy that would have been used for copying on the worksheets, erasing, re-copying and typing on the catalogue cards (Adebayo & Emeahara, 2012). Furthermore, multiple copies of titles, which are sometimes scattered because of errors in classification, are brought together through the Online Public Access Catalogue (OPAC) as well as an increase in the volume of materials classified within a given time. Additionally, libraries that are connected to the Internet automatically have access to the materials classified in other libraries, if such materials have been uploaded too. Through the Internet, it is easy for classifiers to gain access to the Library of Congress or other platforms for copy cataloguing

Though ICT in cataloguing and classification is full of gains, Aina and Onuoha (2016) note that the potential benefits of the adoption and application of ICT for the organization of library resources are not yet fully exploited in Nigeria university libraries owing to the lack of institutional framework, high cost of acquiring ICTs, inadequate funding of university libraries, inadequate ICT skills on the sides of the cataloguer librarians, poor Internet connectivity, among others. Moustapha and Ahmad (2021) observe that Nigerian libraries are not adopting ICTs in their cataloguing properly due to challenges such as erratic power supply, insufficient funding, staff shortage, and lack of cataloguing experience or knowledge, among others. If these challenges are not handled, the result may be disastrous. However, Omekwu (2008) is of the view that the most critical role of cataloguers, especially those in developing countries, is the adoption of cataloguing practices that effectively mainstream information resources into the global information network environment. By so doing, a cataloguing system that would become tools for access and controlled description of physical and virtual resources will evolve. From the viewpoint of Bassey (2016), only about 44% of cataloguing module is fully automated in most libraries in Nigeria. With these statistics, the effect of ICT on the cataloguing and classification of information resources may not be properly ascertained.

Consequently, a preliminary survey of literature and observation showed that most university libraries have adopted ICTs in their cataloguing and classification operations, the same can also be said of MOUAW Library. A careful look at the literature failed to empirically show the effect of ICT on the cataloguing and classification of information resources in the Library. This is the gap identified. Except, empirically proven, the revelation of the effects of ICTs on the cataloguing and classification of information resources in MOUAW Library could be best referred to as mere speculation. It is against this backdrop that the present study was conceived to examine the effect of ICT on the cataloguing and classification of information resources in Michael Okpara University of Agriculture, Umudike (MOUAW) Library.



### **Objectives of the Study**

The study sets out to examine the:

1. ICTs adopted in cataloguing and classifying information resources in MOUAU Library;
2. perceived effects of ICTs on the practices of cataloguing and classification of information resources in MOUAU Library; and
3. factors militating against the adoption of ICTs in cataloguing and classifying information resources in MOUAU Library.

### **Significance and Motivation of the Study**

The benefits of the adoption and application of ICTs to library operations and service delivery cannot be overemphasized. This is the singular reason why almost all the areas of services of university libraries, have found the application of ICTs on them. These ICTs present a revolutionary approach to addressing developmental questions due to their unequalled capacity to provide access to information instantaneously from any location in the world at a relatively low cost. Today, cataloguers now have access to an online catalogue which enables them to search for class numbers and other bibliographic information about a book. For this reason, the present study examines the effect of ICT on the cataloguing and classification of information resources in MOUAU Library.

It is, however, expected to be of immense benefit to librarians and administrators of university libraries as they will understand, from the cataloguers' perspective, the perceived effects of these ICTs on the cataloguing and classification of information resources, as well as what should be done to improve the adoption of ICT in cataloguing and classifying information resources in the library. The study will equally aid researchers and authors who are interested in knowing the effects, challenges, and possible solutions to the problems, facing ICT adoption in the cataloguing and classification of information resources. It will also be a source of information in ensuring that every librarian becomes an accomplished cataloguer due to the solution to the identified challenges. Finally, this study will add to the existing literature on the cataloguing and classification of information resources and ICT in libraries.

### **Review of Related Literature**

ICT could be referred to as a merger of computing and telecommunication technologies for information acquisition, storage, retrieval and dissemination. According to Hart, Emeli and Okorogba (2016), they are a merger of computing and telecommunication technologies for information acquisition, storage, retrieval and dissemination. Amuchie (2015) sees ICTs as those technologies that are used to access, gather, manipulate and present or communicate information They include hardware such as computers and other devices; software applications and connectivity; access to the Internet, local networking infrastructures and video conferencing (Amuchie, 2015). ICTs present a revolutionary approach to addressing developmental questions due to their unequalled capacity to provide access to information instantaneously from any location in the world at a relatively low cost (Arinola, Adigun, Oladeji, & Adekunjo, 2012).

Consequently, the emergence of ICTs ushered in the dawn of a new era in the cataloguing and classification of information resources (Ladan, 2012). These technologies not only ensure easy information processing and storage but also ensure



effectiveness in the areas of information retrieval and dissemination. Onouha, Chikezie and Chukwueke (2019) observed that the rapid development and influx of ICTs to operations and services of academic libraries have made a commensurate impact and have led to a series of innovations, among which is the ICT-based cataloguing and classification of information resources found in the library. This has in no fewer manners improved the cataloguing and classification workflow in libraries and has greatly reduced manual work (Bhoi, 2017). ICT-based cataloguing and classification enable para-professionals in libraries to effectively perform many of the duties that hitherto were the exclusive domain of professional librarians (Eze, 2012).

Further amplifying the above, Alabi (2018) carried out a study on ICTs applications for cataloguing and classification in Nigerian libraries and found that cataloguers have embraced the use of diverse library software and also utilise online catalogues for copy cataloguing coupled with the fact that they have a positive attitude towards ICT application in performing cataloguing and classification activities. In the same vein, the study of Adebayo and Emeahara (2012) on the use of Internet facilities and metadata as precursors to electronic resource cataloguing in selected academic libraries in South-west, Nigeria found that there is a significant relationship between the use of Internet facilities and metadata in cataloguing electronic resources, which has resulted in high availability of CD-ROMs, electronic journals and web resources in the selected libraries, high availability of the Internet, cataloguing modules and OPAC and high usage of Internet facilities such as the E-mail, web browsing and Discussion forums. This further informed the assertion of Alabi (2018) that many libraries in developed countries have adopted the use of ICTs in carrying out cataloguing and classification functions, and Nigerian libraries are no exception. These ICTs, according to the author have transformed how cataloguing and classification routines are carried out and have impacted the traditional ways of organizing library information resources.

In another study, Akidi and Okezie (2018) revealed a low extent of the adoption of library software packages with the adoption of CDS-ISIS being high. According to the authors, although, the cataloguers had a high knowledge of computer and Internet skills, the application of such knowledge and skill in the practice of cataloguing and classification of information resources, is low, owing to challenges such as inadequate funding, inadequate infrastructural facilities, incessant power supply, lack of Internet facilities and inadequate bandwidth, lack of vendor technical support, lack of maintenance culture and lack of adequate staff training, among others. Agreeably, Arinola, Adigun, Oladeji and Adekunjo (2012) had earlier observed a poor utilization of ICTs in the cataloguing and classification function of most libraries due to cost, technical know-how and management issues.

Amidst its challenges, Arinola, Adigun, Oladeji and Adekunjo (2012) x-rayed the impact of ICT on the cataloguing and classification of library materials in ten randomly selected University libraries in the South-western part of Nigeria and revealed that ICT could bring lasting relief to the stress of manual classification and cataloguing, which is prone to human error. However, the result is that cataloguing has grown more important as library users can now log on to online catalogues from the comfort of their homes. As well, Alabi (2018) carefully observed that ICT-based cataloguing and classification of information resources and how it has proven the routines for manual cataloguing to be drudgery, repetitive, boring in nature and often seen as a “hard” area of librarianship. This, according to Bassey (2016), is because of the availability and utilization of library software like ALICE for Windows, Virtua, Techlib Plus, Libsys, CDS/



ISIS, Lib Info, WINISIS, LMS, SOUL, TINLIB, X-LIB, GLAS, KOHA, SLAM, Liberty 3, and Docuware, for the operations (Bassey, 2016).

Additionally, ICT-based cataloguing and classification of information resources have brought about efficiency and effectiveness in resource sharing, easy and increased accessibility, reliable storage, accuracy, resource availability, reduced duplication of efforts and cost-effectiveness (Arinola, Adigun, Oladeji & Adegunjo, 2012). It has also led to increased work productivity among cataloguers. For instance, Akintunde (as cited in Alabi, 2018) stated that the ICT-based cataloguing operations in the University of Jos, Plateau State, Nigeria have proved useful in increasing the number of books processed in the Cataloguing section from as low as 5% to 50%. It has also empowered cataloguers to embark on integrated operations and resource sharing. However, through resource sharing, cataloguing records are now readily available, and there is a serious reduction in effort duplication among cataloguers (Nwalo, 2006). Summarily, new features brought about as a result application of ICTs into the cataloguing and classification of information resources in libraries include the OPAC, a database containing the library's collection that can be accessed by anyone online, Cataloguing-In-Publication (CIP) data, involvement of non-professionals in copy cataloguing, the introduction of software, cataloguing of internet resources and other electronic files (Francis-Swanson, 2010; Yusuf, 2009).

It is very clear from the literature that ICTs in the cataloguing and classification of information resources in libraries have proven to be of high positive effects although fraught with some challenges. It is also clear that these are reports from other libraries while some are based on personal opinions. To this end, no literature was found as to the effect of ICT on the cataloguing and classification of information resources in Michael Okpara University of Agriculture Library, Umudike, thereby, leaving a gap in the literature that the present study tends to fill, upon completion.

### **Methodology**

The study adopted the descriptive survey design with a focus on Michael Okpara University of Agriculture, Library Umudike, Abia State, Nigeria. A sample of 5 respondents representing the entire staff strength of the Cataloguing and Classification Unit was chosen using the complete census sampling technique. The staff were chosen because they are directly involved in the operation of cataloguing and classification of information resources in the Library studied and would be in the best position to provide reliable data. Furthermore, data were collected using a combination of an observation checklist and a 23-item questionnaire titled "Effect of ICTs on Cataloguing and Classification of Information Resources Questionnaire (EICTs CCIRQ)". Firstly, the observation checklist was used to examine the ICTs adopted while the questionnaire answered questions bothering on the effects and factors militating against the adoption of ICTs in the cataloguing and classification of information resources. Additionally, the questionnaire was structured using a four (4)-point scale of Strongly Agree, Agree, Disagree, and Strongly Disagree with a criterion mean of 2.50. This implies that any questionnaire item with a mean score of 2.50 and above was regarded as "agreed" while items with a mean score below 2.50 were regarded as "disagreed". A total of five (5) copies of the questionnaire were distributed and all were returned, giving a response rate of 100%. Data analysis and presentation were done using frequency counts and mean scores with appropriate tables.



### **Analysis and Results**

A total of five (5) copies of the questionnaire were distributed and all were returned, giving a response rate of 100%. Data collected and analysed are presented in the tables below; following the order of the research objectives.

**RO 1:** To examine the ICTs adopted in cataloguing and classifying information resources in MOUAU Library

**Table 1: ICTs Adopted in Cataloguing and Classifying Information Resources**

<b>S/No.</b>	<b>Items</b>	<b>Adopted</b>	<b>Not Adopted</b>
1	Computers	√	-
2	Printers	√	-
3	Scanners	√	-
4	CD-ROM Technology	√	-
5	Photocopiers	-	√
6	Internet servers	√	-
7	Machine-readable catalogue (MARC)	-	√
8	Online Public Access Catalogue (OPAC)	-	√
9	Library Based Software e.g. KOHA	-	√
10	Online database	√	-
11	Radio Frequency Identification Devices (RFID)	-	√
12	Barcode Readers	-	√

Table 1 captures the data collected through the use of the observation checklist on the ICTs adopted in the cataloguing and classification of information resources in the library studied. A total of twelve (12) ICTs were investigated. The result shows the adoption of 6 of the 12 ICTs which include computers, printers, scanners, CD-ROM technology, Internet server and online databases. On the other hand, photocopiers, Machine Readable Catalogue (MARC), Online Public Access Catalogue (OPAC), library-based software e.g. KOHA, Radio Frequency Identification Devices (RFID), and barcode readers were not adopted, as observed.

**RQ 2:** To ascertain the perceived effects of ICTs on the practices of cataloguing and classification of information resources in MOUAU Library



**Table 2: Perceived Effects of ICTs on the Practices of Cataloguing and Classification of Information Resources**

S/n	Statements	SA	A	D	SD	Mean	Decision
1	ICTs in the cataloguing and classification process make the process easy	3	2	0	0	3.60	Agreed
2	Reduces errors in cataloguing and classification	3	2	0	0	3.60	Agreed
3	Brings about quick cataloguing and classification practice	5	0	0	0	4.00	Agreed
4	Makes for effective search, location and retrieval of information resources	4	1	0	0	3.80	Agreed
5	Saves time for the user and the librarian	5	0	0	0	4.00	Agreed
6	Saves the energy of searching by the user	5	0	0	0	4.00	Agreed
7	Provides access to the right and relevant information materials	2	3	0	0	3.40	Agreed
8	Saves space in the library	2	3	0	0	3.40	Agreed
9	Provides access to different formats of information materials	2	3	0	0	3.40	Agreed
10	Reduces labour	4	1	0	0	3.80	Agreed
11	Saves cost for the library	4	1	0	0	3.80	Agreed
<b>Cluster Mean</b>						3.71	Agreed

Table 2 captures the views of the respondents on the perceived effects of ICTs on the practices of cataloguing and classification of information resources in MOUAW Library. The result shows that the majority of the respondents agreed with all the perceived effects which include: ICTs in the cataloguing and classification process make the process easy (3.60), reducing errors in cataloguing and classification (3.60), bringing about quick cataloguing and classification practice (4.00), makes for effective search, location and retrieval of information resources (3.80), saves the time of the user and the librarian (4.00), saves the energy of searching by the user (4.00), provides access to right and relevant information materials (3.40), saves space in the library (3.40), provides access to different formats of information materials (3.40), reduces labour (3.80), and saves cost for the library (3.80). This agreement is because the mean values of the item statements fall within the mean limit of agreement (i.e. if mean value  $\geq 2.50$ ). The summary flows from the result of the cluster mean of 3.71 obtained, which showed that the majority of the respondents strongly agreed and reported positive effects of the adoption of ICTs in the cataloguing and classification of information resources.

**RO 3:** To identify the factors militating against the adoption of ICTs in cataloguing and classifying information resources in MOUAW Library





**Table 3: Factors Militating Against Adoption of ICTs in Cataloguing and Classifying Information Resources**

S/N	Statement	SA	A	D	SD	Mean	Decision
1	Poor funding of library technical operations	4	1	0	0	3.80	Agreed
2	Inadequate ICT facilities	1	4	0	0	3.20	Agreed
3	Inadequate number of ICT-competent cataloguers in the library	5	0	0	0	3.00	Agreed
3	Unstable power supply	4	1	0	0	3.80	Agreed
4	Frequent changes in technology	1	4	0	0	3.20	Agreed
5	Inadequate technical support	3	2	0	0	3.60	Agreed
6	Lack of maintenance culture	1	4	0	0	3.20	Agreed
7	Changes in software applications in libraries	1	4	0	0	3.20	Agreed
8	Low Internet bandwidth	2	3	0	0	3.40	Agreed
9	Management problems	4	1	0	0	3.80	Agreed
10	Incompetent personnel	1	4	0	0	3.20	Agreed
11	Lack of continual training of cataloguers	2	3	0	0	3.40	Agreed
<b>Cluster Mean</b>						<b>3.40</b>	<b>Agreed</b>

Table 3 shows the result generated on the factors militating against the adoption of ICTs in cataloguing and classifying information resources in the library studied. It shows that majority of the respondents agreed with all the item statements to be the factors militating against the adoption of ICTs. These factors agreed with and their mean scores include poor funding of library technical operations (3.80), inadequate ICT facilities (3.20), inadequate number of ICT-competent cataloguers in the library (3.00), unstable power supply (3.80), frequent challenges in technology (3.20), inadequate technical support (3.60), lack of maintenance culture (3.20), changes in software applications in libraries (3.20), low Internet bandwidth (3.40), management problems (3.80), incompetent personnel (3.20), and lack of continual training of cataloguers (3.40). This agreement is because the mean scores of the item statements fall within the mean limit of agreements (i.e. mean  $\geq$  2.50). However, a cluster mean value of 3.40 obtained showed that the majority of the respondents agreed to the existence of numerous factors militating the adoption of ICTs in cataloguing and classifying information resources in MOUAAU Library.

### **Discussion of the Findings**

Considering the first objective of the study, it was revealed that 6 of the 12 ICTs examined were adopted for the cataloguing and classification operations of the Library. The ICTs reported being adopted by the majority of the respondents, including computers, printers, scanners, CD-ROM technology, Internet server and online databases. Although this result partially agrees with the findings of Alabi (2018), which found the existence of numerous ICTs such as computers, printers, and photocopiers in academic libraries in Nigeria, one could rightly observe the adoption and application in



the practices of cataloguing and classifying information resources, to be low. This is contrary to the submissions of Akidi and Okezie (2018) in their study, which revealed a high extent of use of ICTs for cataloguing and classifying information resources in most Nigerian libraries. It is, however, important for one not to conclude that the application of computers or only a few ICTs summarizes the adoption of ICTs in such operations. This is because, some relevant ICTs are necessary but their application, is relegated.

Additionally, on the perceived effects of ICTs on the practices of cataloguing and classification of information resources, the finding shows a highly positive effect. The effects range from making cataloguing and classification easy, reducing errors in cataloguing and classification, bringing about quick cataloguing and classification practice, making for effective search, location and retrieval of information resources, saving the time of the user and the librarian, saving the energy of searching by the user, provides access to right and relevant information materials, saves space in the library, provides access to different formats of information materials, reduces labour, and saves cost for the library. These findings tally with the report of Arinola, Adigun, Oladeji and Adekunjo (2012), which revealed that ICTs could bring lasting relief to the stress of manual classification and cataloguing. Furthermore, Akintunde (as cited in Alabi, 2018), Bassey (2016), Bhoi (2017), as well as Akidi and Okezie (2018) reported many benefits and positive impacts attached to the application of ICT in library services and operations. These benefits as reported by the authors sum up to easy delivery of library services.

Consequently, the study in its finding on factors militating against the adoption of ICTs in cataloguing and classifying information resources in MOUAU Library various militating factors, which include; Inadequate funding, lack of infrastructural facilities, inadequate number of ICT-competent cataloguers in the library, unstable power supply, frequent challenges in technology, inadequate technical support, lack of maintenance culture, changes in software applications in libraries, low Internet bandwidth, management problems, incompetent personnel, and lack of continual training of cataloguers. Consequently, the study agrees with the report of the works of Igwe and Uzuegbu (2013), Bassey (2016), Bhoi (2017), and Alabi (2018), which found that lack of funds, poor management support, unskilled manpower and lack of infrastructural facilities necessary for the full application of ICT were some of the problems encountered in the library which hinders their application of ICT resources in their areas of operations and services. These were the reasons why Mensah (2015), Nitin (2015), Hart, Emeli and Okorogba (2016), as well as Onuoha, Chikezie and Chukwueke (2019) suggested the need for adequate provision of funds for the procurement of ICT facilities, staff and user training on ICT use, provision of an adequate infrastructural facility, among other remedies, should be the top consideration of any academic library with the view of applying ICT in their operations and services.

### **Conclusion**

The practice of automation of libraries is no longer a new phenomenon to most university libraries. However, some of these university libraries are yet to fully tap from the dividends of the adoption and application of these ICTs in their services, especially in the area of cataloguing and classification of information resources. Numerous ICTs have been adopted in the cataloguing and classification of information resources with a high extent and numerous positive effects on the practice, both to the librarians and users of the Library. Although the effects are seen in the areas of making cataloguing



and classification easy, reducing errors in cataloguing and classification, bringing about quick cataloguing and classification practice, making for effective search, location and retrieval of information resources, saving the time of the user and the librarian, among others, modern ICTs are yet to be embraced by the Library studied.

### **Recommendations**

Based on the findings, the following recommendations were made:

1. Management of Michael Okpara University of Agriculture Library should develop means of generating additional funds to finance most of their projects to remedy the constant reference to inadequate funding. To generate these additional funds, the library can decide to place most of its services on a fee-based, and solicit support from individuals and philanthropists, among other means.
2. Libraries should build on the infrastructural facilities available. This is because most of these ICTs require some infrastructure such as strong desks, air-conditioned rooms, etc. for their application and effective functioning. It is also important that these libraries move with the ICT trends and constant changes in technology.
3. There is a high need for the Management of MOUAW Library to recruit more ICT-competent staff that would take care of the various operations requiring a strong ICT presence. As well, the librarians, especially the cataloguers should be exposed to adequate ICT training.

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## **CLOUD HOSTING OF KOHA AND DSPACE FOR EFFECTIVE AND EFFICIENT LIBRARY SERVICES IN NIGERIAN ACADEMIC LIBRARIES**

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### **ABSTRACT**

*Cloud computing provides a library with cost-effective and dependable technological facilities and computing machines to support the library in carrying out its function of information dissemination and preservation. This transformation has had a favourable impact on many aspects of library operations and services. The automation of library operations and services, as well as the digitalization of information resources, are key parts of library operations and services. Nigerian libraries are investing heavily in order to meet the information demands of the twenty-first century in line with what obtains in Western climes. A functional Online Public Access Catalogue (OPAC) and interactive institutional repository should be the final product of every automation and digitization project in libraries. This does not appear to be the case in Nigerian libraries. Unreliable software, erratic power supply, low Internet bandwidth, lack of experienced personnel, systems failure, poor administrative support, inadequate staff training, and poor technical infrastructure are just some of the challenges that Nigerian libraries face in achieving a full and successful automation and digitization process that will aid in the effective and efficient service delivery. As a result, this paper looks at two open source software that are widely used in Nigerian libraries for automating library operations and services, as well as developing institutional repositories and propose a practical and cost-effective strategy using cloud computing which is the distribution of computing services via the Internet (the cloud), including servers, storage, databases, networking, software, analytics, and intelligence, in order to provide faster innovation, more flexible resources, and economies of scale.. Recommendations are then made for how Nigerian libraries can take advantage of cloud computing's benefits to overcome certain persisting hurdles and accomplish a successful automation and digitalization process for better delivery of library services.*

**Keywords:** Cloud hosting, OPAC, Institutional repository, Library services, KOHA, DSpace

### **Introduction**

Since the awareness of the necessity for a web-based and searchable Online Public Access Catalogue (OPAC) due to the many benefits it provides (Akanbi, Adekanbi & Bankole, 2021; Vijayakumar & Manasa, 2020). Acknowledging that though it may be slow, strenuous and characterized with many challenges, Oladokun, Oyadeyi and Iyoro (2019) noted that Nigerian libraries have been automating library operations



and services through the process of retrospective conversion in order to provide their users with speedy and efficient access to information resources. The changing nature of library patrons' information requirements and patterns has also influenced the large investments libraries are making in institutional repositories in order to deliver efficient and effective 21st century library and information services to their patrons. A functional OPAC, according to Oladokun, Oyadeyi and Iyoro (2019) increases library collection visibility, library collection utilization, and cataloguing routine management, among other things.

Institutional repositories (IRs) are an integral part of many academic institutions. Higher education institutions can use institutional repositories to increase the visibility and use of national research (Mooketsi, 2020). These repositories are sets of services that create an open access digital archive filled with the institution's scholarly work and communication created by the faculty, administration, and students (Hwang, Elkins, Hanson, Shotwell & Thompson, 2020). An IR is an archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution (Chukwueke, Nnadozie & Okafor, 2020). Rafiq (2022) posited that an IR houses electronic content for the purpose of gathering, managing, disseminating, and storing an institution's intellectual output. Creating worldwide visibility for an institution's academic research; single storage point for information material; open access to institutional research output; management, archiving, and maintenance of an institution's digital assets and intellectual output are just a few of the benefits outlined by Omeluzor (2014), Bhardwaj (2014), as well as Utulu and Akadri (2014).

Nigerian libraries have implemented automation and institutional repository projects using open source software accessible on the market. The widespread use of KOHA and DSpace for project implementation among academic and research libraries in Nigeria attests to their popularity (Oladokun & Kolawole, 2018; Oladokun, Oyadeyi & Iyoro, 2019; Otunla, Akintola, & Omotayo, 2022; Adam & Kiran, 2021; Oguiche, 2018). This could be due to their user-friendliness, stability, collaborative and resource-sharing nature, as well as their cost-effectiveness, which has given libraries more flexibility in their operations and reduced their financial burdens associated with purchasing proprietary software. As a result, it is envisaged that the popularity of these products, as well as the high rate of adoption and the human, material, and financial resources invested in the implementation of their respective projects, will result in seamless access and usage by library users. However, observations have revealed that most libraries' OPACs and IRs are not accessible remotely, as they are hosted locally on a library's dedicated local network or Campus Wide Area Network.

Adam and Kaur (2019) discovered that 23 Nigerian institutions registered their repositories on OpenDOAR (Directory of Open Access Repositories), and most of the repositories are either not functioning or working 24 hours. The lack of essential infrastructure, such as electricity and Internet connections, or insufficient Internet speed, has been a continuous and primary cause of this uncomfortable condition, as it has the potential to derail the projects' goals and efforts. What can libraries do in the face of these issues, which are unlikely to be resolved anytime soon? Since, the main focus of the holdings on IRs is to access them anywhere in the world (Lynch, 2005). The ultimate goal of any library is to deliver adequate services to its user. This paper therefore proposes a cloud computing strategy to overcome some of the issues of library automation and digital repository in the short and long term, with a focus on cloud hosting of KOHA and DSpace application software, in order for libraries to be able to provide round the clock library services to their clientele.



### **Cloud Computing**

As Information Technology (IT) has advanced through time, there has been a significant reliance on cloud computing. The use of the cloud has significantly increased recently. Many businesses rely on this technology to run their operations and use it as the foundation of their IT infrastructure, (Golightly, Chang, Xu, Gao & Liu, 2022). Cloud Computing is a rapidly growing IT that, after the personal computer and the Internet, is commonly regarded as the third revolution in information technology. The progress of Distributed Computing, Parallel Computing, Grid Computing, and Distributed Databases is termed as cloud computing. Cloud computing is based on the idea of distributing tasks across a large number of distributed computers rather than using local or remote servers (Sanchati & Kulkani, 2011).

In other words, cloud computing is capable of integrating and storing massive amounts of data and resources on personal computers, mobile phones, and other devices in the public cloud to serve users. Cloud computing is a concept for offering on-demand network access to a shared pool of configurable computing resources such as networks, servers, storage applications, and services that can be quickly supplied and released with minimal administrative effort or contact with service providers, (Ali, Mazen & Hassanein, 2018). It refers to the applications and services that run on a distributed network and make use of virtualized resources that can be accessed using regular Internet protocols and networking (Tella *et al* 2020; Sanchati & Kulkani, 2011). The two types of clouds are service and usage environments. The service cloud environment is made up of infrastructure, platforms, and services. The infrastructure is made up of third-party resource clouds that are made available to consumers as a service so that they can use them as they see appropriate. A platform, such as Google App Engine or the Windows Azure platform, is a set of cloud-based computer applications for accessing and managing data.

The services, on the other hand, are a set of apps developed by the service provider to take advantage of cloud infrastructure and platforms such as *Google Docs*. (Pandya, 2012; Shaw, 2013; Ali, Shrestha, Osmanaj & Muhammed, 2020). The use of cloud environments includes public, private, hybrid, and community cloud environments. The public cloud is accessible to anyone and is largely employed by major businesses. Private clouds, which are administered within an institution, are only accessible to members of that institution. A hybrid cloud system is made up of internal and external providers who use both private and public clouds. Google Apps is an example of a hybrid cloud infrastructure. Clouds that are deliberately arranged and limited to a single group are referred to as community clouds. A community cloud is an example of Google Apps Institutional Gmail (Malik, Wani, & Rashid, 2018; Red Hat, 2022; Lutkevich, 2022).

### **Benefits of Cloud Computing**

The benefits of cloud computing as highlighted by Pandya (2012), Ghosh (2012), Dhaka (2012), Shaw (2013) and Sahu, (2015) include the following:

*Elasticity and Scalability:* One of the most important and fundamental characteristics of cloud systems is elasticity. This is a crucial characteristic of this service: any changes and enhancements to the services are simple and quick, making it incredibly scalable and resilient.





**Multi-tenancy:** In cloud systems, where the location of code and/or data is mostly unknown and the same resource may be given to several users, multi tenancy is a critical issue (potentially at the same time). This concerns infrastructure resources as well as data, programs, and services that are shared but must be made available in numerous isolated instances.

**Energy Consumption:** Energy consumption is important in order to reduce energy consumption's added costs. In a traditional system, all servers must be turned on since the data must be accessible 24 hours a day, seven days a week. Because the cloud is built on a network environment, it allows for significant energy savings.

**Reliability:** It is a fantastic feature of cloud computing. When redundant websites are viewed, one of the most important characteristics of cloud computing is reliability. Having multiple sites for the same service improves reliability because if one goes down, the other may take over the load.

**Security:** All systems dealing with potentially sensitive data and code must, of course, be secure. A team of IT experts manages and administers the cloud. As a result, the data will be safe from data loss and system failure.

**Consumption-based Billing:** A key aspect of cloud systems is their ability to calculate costs based on actual resource utilization. Pay per use is strongly linked to the quality of service support, since it allows certain needs to be stated for the system to meet and so be paid for. One of the best aspects about cloud computing is that you don't have to pay anything if you don't use the resource.

**Data Management:** Data management is a key characteristic of the cloud environment and an important aspect of storage, where data is dispersed over many resources in a flexible manner. Data consistency must be maintained implicitly over a large number of duplicated data sources. At the same time, when duplicating data across data centers, the system must constantly be aware of the data location.

**Managing Cloud Activities:** The management and monitoring of cloud applications is one of the most important elements of the cloud. Because the cloud manager is part of a distributed wide-area network infrastructure, it can be monitored from anywhere on the planet. One of the most significant departures from the traditional data center is the storage, management, and administration of all data in the cloud.

**Self Service Model:** The self-service approach is one of the reasons behind the popularity of cloud-based environments. Users can upload files, build programs, deploy, schedule, manage, and produce reports in some circumstances. This service is made available to consumers on a demand basis.

### **Disadvantages of Cloud Computing**

There is no perfect system. Despite its numerous benefits, there are some areas of concern that needs to be addressed for implementation of cloud computing in libraries such as data security, privacy and reliability among others as highlighted by Abdalla and Varol (2019) as well as Attaran, Attaran and Celik (2017). First, data security and privacy are the biggest concerns about cloud computing. Organisations dealing with sensitive clients' data should put proper security model in place to avoid vulnerability of data stored on the cloud to attacks or theft. Alternatively, libraries adopting cloud computing may exclude patrons' sensitive data from the cloud. Also computing depends on Internet connectivity for access. Since the cloud computing is offered over the Internet, it may mean that the problem of Internet connectivity still exists. Libraries



can opt for economical alternative like Wi-Fi within the library, where campus wide Internet connectivity is not available, since users can get access to the service at their different locations using their private Internet connection.

Besides, knowledge of cloud computing is essential as working of the service is totally dependent on the service provider. Systems librarians can get further training on cloud computing essentials. Other drawbacks include the problems with unauthorized data access between virtual devices using the same server; mistakes made by a cloud provider regarding the proper administration and storage of sensitive data. Occasionally, faults and system crashes may cause the cloud service to be unavailable for protracted periods of time; Hackers may breach and access a client's cloud-based apps, accessing and disseminating sensitive data.

### **Opportunities Provided by Cloud Computing for Libraries**

The drawbacks of cloud computing notwithstanding, libraries can benefit from cloud computing in a variety of ways, including cost savings, flexibility and creativity, user centeredness, openness, portability, transparency, security, accessibility, interoperability, and representation as stated by Abdalla and Varol (2019), Al Etawi (2018), Dutt (2015) and Pandya (2012).

*Cost Effectiveness:* In Nigeria, education is underfunded. As a result, library funding has been drastically reduced. A range of resources in various formats extended the problem (printed and digital). Regularly purchasing infrastructure assets, as well as maintaining and upgrading software and hardware, has become a time-consuming task. Cloud computing can save money on purchasing physical IT infrastructure because of economies of scale and the fact that libraries only pay for the services they use.

*Flexibility and Innovation:* Because the new application will run on the provider's infrastructure, risks can be made for fresh and original concepts. Libraries do not have to make decisions regarding bandwidth, traffic, or other issues.

*Support Services:* Libraries can take advantage of the most advanced security, availability, and performance methods, eliminating their concerns about obtaining IT expert services from institutions' IT departments, which may not be available at the of need.

*Greater Security and Accessibility:* Access to resources from any geographical point and the ability to test and evaluate resources at no cost.

*Adjustable Storage:* Unlike the physical server which can be replaced when the storage capacity can no longer meet the needs of the library, the cloud storage capacity is expandable and can be modified to meet the growing needs of the library

*Cloud OPAC and Repositories:* Majority of libraries across the world have a web-based catalog. Libraries in Nigeria should not be an exception. If library management apps are housed on the cloud, the catalogue will be available and accessible via the cloud at any time and from any location, making it easier for users to find out what materials are available. In addition, network libraries can utilize the same platform to provide access to their collections, encouraging the development of a national union catalogue. Institutional repositories hosted on the cloud will help improve the visibility and accessibility of an institution's research in real time.

E-book lending, document download service, digital preservation, article delivery service, CAS, document sharing, and information commons are some of the other service areas that can be improved by cloud computing.



### **Library Automation and Institutional Repository Development in Nigeria**

Since the mid-1970s, library automation in Nigeria has been a topic of discussion due to growing awareness of new technologies, librarians' curiosity, and readiness to employ new technology. In Nigeria, automation of library operations and services began in the late 1980s, with institutions such as Bayero University Library in Kano, Ibadan University Library in Ibadan, University of Jos, and Ahmadu Bello University in Zaria at the frontline (Adegboye, 2010). A significant number of libraries in Nigeria have automated their operations and services in recent years. 20 of 36 Nigerian academic libraries survey by Oladokun and Kolawole (2018) have automated their libraries. Library automation has transformed library and information services in Nigerian libraries, allowing them to meet the demands of the information age. Automation makes library holdings more accessible, allowing staff to better serve users and streamline duties like acquisitions, cataloguing, circulation, and reference. Automation also improves the creation of innovative services, as well as Internet and online database searches, and reduces the problem of manual material processing, filling, typing, and retrieval errors, as well as the time spent processing and retrieving information (Martin, 2020; Alotaibi, 2022).

Institutional repositories can function as a scholarly enterprise for a higher education institution, evolving and expanding through time to serve not only the stakeholders in the immediate institution community but also those in the broader community (Adam & Kiran, 2021). An institutional repository is a set of services that a university or organization provides to the people in its community for the administration and sharing of digital content produced by the institution and people in the community (Henok & Yule, 2019). Digital outputs are collected and curated in institutional repositories. Institutional repositories increase the exposure and influence of a university's or institution's research outputs by making them available to the public.

As a result, publicly available institutional repositories promote the university to interested parties such as potential employees, students, and other stakeholders. Manages and evaluates academic and research activities. Institutional repositories also serve as a workflow mechanism for collaborative or large-scale projects, assist the development and sharing of digital instructional materials and aids, and support student endeavours by offering access to theses and dissertations (Malekani & Kavishe, 2018; Omeluzor, 2014). Ogbomo and Muokebe (2015), Ridwan (2015), Mohammed (2013) as well as Adam and Kaur (2019) reported that Nigerian institutions have adopted IRs. The adoption, according to Abbas (2016) and Gbaje and Mohammed (2017), was due to the awareness of the benefits it provides, which include but not limited to increased institutional visibility, facilitate access, preserving and showcasing the intellectual output of an institution to the world,

### **Challenges of Library Automation and Institutional Repository in Nigeria**

IR undoubtedly remains the most popular vehicle for effective scholarly communication and yet its potentials are not adequately harnessed because of lack of ICT infrastructure for the implementation. Significantly, the availability of a university-wide area network and a LAN within the library determines the success of library automation and institutional repository. The poor or unreliable nature and in most cases the unavailability of this important ICT infrastructure as noted by Emezie and Nwaohiri (2014) pose a serious challenge to many universities in Nigeria.

Other factors that inhibit the full and successful implementation of library



automation and institutional repository among Nigerian libraries include but are not limited to: lack of access to information about the new technologies, inadequate professional librarians to execute the project, lack of maintenance and support staff, lack of supervision, inadequate managerial support, erratic power supply, high cost of procuring hardware, maintenance cost, apathy on the part of library staff, poor funding, lack of training and re-training of staff (Solomon, & Bakare, 2022; Oladokun, Oyadeyi & Iyoro, 2019; Umar, Izah, & Mohammed, 2018; Oladokun & Kolawole, 2018; Adetunji & Oladokun, 2020).

### **Benefits of Hosting KOHA and DSpace in the Cloud for Effective Library Services**

While some of these issues have been there for a long time and may still exist, others can be overcome. Any library's primary responsibility is to ensure that its information resources are accessible and usable at all times. This study proposes cloud hosting of KOHA and DSpace as a cloud computing solution for library automation and institutional repository implementation, respectively, to accomplish this in terms of library automation and institutional repository implementation.

Cloud hosting provides significant operational and financial benefits to libraries by lowering up-front cost, operational and staff costs. Libraries can also benefit technically through professionalised backup and recovery system, scalability, collaboration and copyright convenience. More so, hosting KOHA and DSpace in the cloud brings about enhanced service accessibility such as access to services that are otherwise unavailable; services from multiple access devices and services from multiple device-types. In addition, long-term data retention becomes a more simplified process, eliminating the costly management of disks and tape systems. Libraries using or intending to use a cloud hosting service gets data protection benefits such as round the clock availability, disaster recovery, higher performance, huge storage capacity and device portability (Nayana & Aswath, 2016; Gandgoankar, Mente & Shinde, 2015; Radha, 2013).

Cloud hosting makes websites and apps available with the aid cloud resources. Alternative hosting like the traditional dedicated server does not deploy applications on a single server. The program or website is instead hosted by a network of linked physical and virtual cloud servers, providing greater flexibility and scalability. The traditional dedicated server paradigm requires libraries to build and manage their own data centers, whereas the cloud hosting approach is less expensive. Cloud hosting is easily accessible, scalable, adaptable, cooperative, cost-effective, and offers a reliable data backup solution (Perepa, 2022; Lelii, 2018).

Implementing cloud computing can help libraries save money on system upkeep, conserve energy, gain a global perspective online, connect users to a variety of information sources, and improve services, Wada, (2016). Abidi, Abidi and Armani (2012) noted that libraries will be able to share their electronic data resources, reduce dependence on external agencies on IT issues, reduce capital expenditure on hardware resources and increase efficiency. To prevent libraries from having to invest in hardware, numerous software providers and third-party services are now hosting this service on the cloud. In addition to the cost-benefit analysis, libraries won't have to worry about performing maintenance such software upgrades, backups (Bansode & Pujar, 2012). In view of this, it may be safe to note that hosting KOHA and DSpace in the cloud will provide considerable operational and financial benefits to libraries and



make the applications to run 24 hours.

Virtual spaces are allotted via cloud hosting. It takes the place of the local hosting setup due high setup costs, access restrictions, and unreliability. KOHA hosting in the cloud is more dependable, safe, and scalable. Different data centers in various locations can be used to access the network data. Using a single physical server for managing virtual resources and providing services may not be as effective as hosting KOHA in the cloud. When a resource is available in the cloud in real time and without any restrictions, access is effortless. The benefits of using a hosting KOHA in the cloud include: easy expansion, access from any web browser over the Internet, regular updates, remote access by both library users and library personnel, and a simple option for backup of bibliographic data (Mazumder, Sarkar, & Roy, 2019).

### **Some Cloud Service Providers**

Bansode and Pujar (2012) and Pandya (2012) highlighted below some cloud service providers that libraries can consider using their services:

*Ex Libris:* This is a well-known cloud service business with headquarters in the United States. They offer a cloud library solution that includes all of the software and hardware required to give services to consumers. It is a library management system that may be used by any form of library, as well as consortia and is based on a variety of standards and has a number of features such as Unicode font compatibility, flexibility, and more.

*Polaris Library Systems:* This is a cloud-based library automation system that is now available on the market. In addition, the organization offers a standard acquisition and processing system. The library can also integrate various PC and print management systems at no additional cost with a Polaris ILS Client License. The system employs a number of well-known standards, including MARC 21 for bibliographic data, XML, and Z39.50 for retrieval of content.

*Dura Cloud2:* This is a cloud-based digital library service provider. Dura Cloud is a subsidiary of Dura space, a partnership between the Dspace digital library software and Fedora Commons. Fedora Commons is a digital repository framework. It provides a complete digital library solution with industry-standard software and hardware.

*Google Cloud:* Is a collection of Google's public cloud computing services. The platform comprises a variety of Google-hosted services for computation, storage, and application development. The *Google Cloud Platform* services are based on a pay-as-you-go approach, which means that users only pay for the cloud resources they utilize. Specific terms and fees, on the other hand, differ from one service to the next.

*Microsoft Windows Azure:* Microsoft Azure is a cloud computing service developed by Microsoft for developing, testing, deploying, and managing applications and services through Microsoft-managed data centers. Users can launch general-purpose Microsoft Windows and Linux virtual machines, as well as preset machine images for popular software packages, using virtual machines.

Other cloud service providers include but are not limited to *DigitalOcean*; Whogohost and Amazon's Virtual Cloud Server. Most of these providers offers a trial service period ranging from three to six months and some up to one year. Libraries can take advantage of this trial period to test their services so as to make informed decisions. They also have a flexible pricing model (pay-as-you-use). Libraries can choose the pricing model according to their needs, size and capacities.



## **Conclusion**

Cloud computing is the optimal management and technology technique to support libraries in light of the current difficult economic condition and low financial budget, as well as inconsistent electricity, low internet speed among others occasioned by inadequate funding of the academic institutions. To better serve their patrons, libraries and other information centers should adopt and use cloud services. Nigerian libraries are not new to cloud-based services, having adopted services such as electronic journal access management, digital library hosting, and a few exploring hosted library management systems and institutional repositories. Because libraries are service-oriented, they are in a good position to adopt cloud computing. As a result, librarians are constantly on the lookout for appropriate solutions within limited resources in order to provide seamless services to users, yet they are frequently challenged with numerous obstacles. This paper proposes that Nigerian academic libraries should host their library automation and institutional repository application software-KOHA and DSpace on the cloud for effective and efficient service delivery

Library automation and institutional repositories are critical components of library operations and services, attracting significant funding from the library budget but yielding a low return on investment due to low accessibility, which is exacerbated by factors such as lack of information about new technologies, insufficient professional librarians to carry out the project, a lack of maintenance and support staff, and insufficient electricity supply among others. Libraries should consider hosting their library management solutions on the cloud to address some of these issues. This will improve and provide 24-hour access to library resources, resulting in more effective library services and efficient library operations. Library staff would also be able to work remotely, and at any time. In addition, the cost of procuring hardware and running a data center will be reduced. A good backup and recovery solution will also eliminate the fear of data loss.

## **Recommendations**

1. Libraries and librarians should break out of their shells and continuously improving themselves by accepting and implementing new information technology.
2. Libraries should embrace cloud computing, which is a rapidly expanding technology.
3. To improve and delocalize their operations and services as well as provide more user-friendly, effective, and professional library and information services., Nigerian academic libraries should host their library management applications on the cloud

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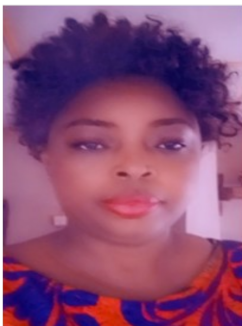
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## **PUBLIC LIBRARY SYSTEM IN NIGERIA: TOWARDS THE CREATION OF SOCIAL CAPITAL FOR SUSTAINABLE DEVELOPMENT IN THE KNOWLEDGE SOCIETY**

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### **ABSTRACT**

*This paper attempts to describe the public library system's role in Nigeria towards the creation of social capital for sustainable development in the knowledge society. It highlights concepts of social capital, knowledge society, and the public library system in Nigeria and its situation. The paper indicates a number of strategies for the generation of social capital by public libraries that include organising programs for children (quizzes and debates), provision of internet-based services, conducting film show programs, organizing voter education programs, collaborating with voluntary associations and organizations, and provision of universal services, among others. It identifies the lack of a proper meeting hall/room to host or organize community meetings; non-availability of open space for festivals, and social gatherings; traditional library layout and un-conducive atmosphere of the library environment to provide library programs and activities; and lack of community awareness of library functions and services. Inconvenient distance between the library and the community members, inadequate and out-of-date library collections, inadequate ICT infrastructure/facilities for library services and programs, and lack of library understanding and its role in the services contributing to social capital creation as the challenges in the generation of social capital by public libraries for sustainable development. Finally, the paper came up with suggestion for the creation of social capital by public libraries.*

### **Introduction**

Libraries have a recognized social function in making knowledge publicly available to all. They serve as local centres of information and learning, and are local gateways to national and global knowledge (National Knowledge Commission, 2007). The public library is considered to be a living force for education, culture, and information and seen as an essential agent for the fostering of peace and spiritual welfare through the minds of men and women. Public libraries are the ideal vehicle to provide access and support and to foster the spread of vital new technological skills among the population (Library and Information Commission, 1997). They are backbone for the improvement of any society. UNESCO Public Library Manifesto (2022) defined a public library as “the local gateway to knowledge, [and] provides a basic condition for lifelong learning, independent decision making and cultural development of the individual and social groups”. A public library is a library that is accessible by the public and is generally funded from public sources and operated by civil servants. There are five fundamental characteristics shared by public libraries.

The first is that they are supported by taxes, a board to serve the public interest governs them, they are open to all and every community member can access the



collection, they are voluntary in that no one is ever forced to use the services provided, and they provide basic services without charge (Rubin, 2010). The role of public libraries should not be limited to providing information but that they can also perform numerous social functions. For example, they may serve as a meeting place to integrate, stimulate and engage people, and prevent alienation (Wojciechowska, 2020). Conducted research shows that libraries have the right resources potential to engage and support local communities. This paper intends to identify how public libraries in Nigeria can provide social capital strategies towards sustainable development in knowledge society.

### **Social Capital**

The term social capital, according to Bourdieu (1986), is an “aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition”. Social capital is one of the basic explanatory variables for social inequalities, under-development of a few countries and neighbourhoods, and quality of life. In recent years, the concept of social capital has spread in academic, government, public policy and popular arenas. According to Woolcock (1998), the literature on social capital has expanded exponentially while debates about its meanings, application and measurement have transcended its traditional bases in the disciplines of sociology, economics and political science.

Coleman (1998) used the term 'social capital' as a conceptual tool to synthesize the two intellectual streams of sociology and economics, which he applies to the field of education. He distinguishes between three types of capital: physical, human and social and further identifies the mechanisms by which social capital is generated such as obligations, expectations and trust worthiness of structures, information channels, and norms and effective sanctions. Putnam (1996) is one among those credited with popularizing the concept of social capital in the United States, when he defined social capital as "features of social life-networks, norms, and trust that enable participants to act together more effectively to pursue shared objectives". Putnam (2000), highlights three concept of social capital as that which:

- (i) allows citizens to resolve collective problems more easily;
- (ii) lubricates the wheel that let communities to advance smoothly, where people are trusting and trustworthy, and where they are subject to replaced interactions with fellow citizens; everyday business and social transactions are less; and
- (iii) improves our lot by widening our awareness of many ways in which our fates are linked. When people lack connection to each other's, they are unable to test the variety of their own views, whether in the given or take of casual conversation or in more formal deliberation.

### **Concept of Knowledge Society**

The term 'knowledge society' means a society in which the creation, dissemination, and utilization of information and knowledge has become the most important factor of production. In such a society, knowledge assets are the most powerful producers of wealth, side-lining the importance of land, the volume of labour, and physical or financial capital. It refers to a broader area of social structure, including economic, cultural, and political spectrums, where modern technologies and scientific breakthroughs have considerable influence, but more importantly, knowledge activities



play a more significant role across all dimensions (David & Foray, 2002). The knowledge society is driven by technological advances, innovations, and continuous structural and cultural reforms. It is an ideal framework for bringing social equality and prosperity to all relevant individuals. It is a society that operates within the paradigm of the economics of information. It values human capital as the prime input for production and innovation. It is well connected via modern ICTs to the dematerialized economy, and has access to relevant and usable information.

### **Public Library System in Nigeria**

The importance of providing sound public library legislation as an instrument essential for the promotion of information service delivery to the public became necessary in any country. In the Nigerian context, individual state governments are empowered with the responsibility for running public library services in their own states. As outlined by Bello (2012) public libraries in Nigeria, sequel to UNESCO Manifesto on Public Libraries, were established by law, usually by edicts enacted by Chief Executive of the State and rectified by either the State House of Assembly or State Executive Council, as the case may be. However, public libraries in Nigeria are supported by laws enacted by national and state assemblies and probably in some cases, bye-laws made by the local government legislative houses. The present laws that established public libraries in Nigeria have not enabled them to perform effectively the expected functions. However, some of the public library laws have been found to be defective in content and structure (Opara, 2008).

**Table 1: Distribution of Public Library in the Six Geo-Political Zones of Nigeria**

<b>Geopolitical Zones</b>	<b>No. of State Libraries (Headquarters)</b>	<b>No. of Branches of State Libraries in Local Govt. Areas</b>	<b>Total</b>
North-central	7	18	25
North-east	6	35	41
North-west	7	69	76
South-east	5	37	42
South-west	6	36	42
South-south	6	58	64
<b>Total</b>	<b>37</b>	<b>253</b>	<b>290</b>

**Source:** Ladan *et al* (2020)

It is observed from table 1 that, there is a state library board serving as the headquarters of state public libraries in the 36 states of Nigeria and the federal capital territory, Abuja. In addition, there are 253 branches of the state library boards located in the local government areas. It indicates that out 774 local government areas only 253 have branches of state public library.

### **Situation of Public Libraries in Nigeria**

Most public libraries are merely reading rooms without a large supply of books, adequate infrastructure, or trained staff with a lack of sufficient sanctioned posts, forcing most services to be operated by non-professional staff, which damages



information organization and services (Ladan *et al.*, 2020). Public libraries in Nigeria are in a state of flux. To portray the exciting situation of public libraries, it is appropriate to quote Salman *et al.* (2014) on *Issues and Trends in the Provision of Public Library Services in Nigeria*, who stated that:

*Public libraries in Nigeria lack adequate policies, absence of adequate professionals; infrastructural facilities and services, and an absence of awareness and good understanding of the notion of public library services, which lead to low level- utilization of the accessible services by prospective patrons. A number of the teething troubles facing the development of public libraries and their aspiration to offer effective services to their users include insufficient funding, poor stock, dreadful location, absence of sufficient and qualified staff, low morale amongst the little staff, and insecurity of library materials.*

### **Towards the Creation of Social Capital by Public Libraries in Nigeria**

Social capital is an instantiated informal norm that promotes cooperation between individuals. Public libraries are considered among the relevant institutions that facilitate the creation of social capital in a society. Social capital has been defined as forms of social organization (networks and social trust) that enhance civic engagement and democratic participation (Putnam, 1995). According to Hillenbrand (2005), there is consensus in the literature that public libraries create social capital in a number of ways, to include:

1. promoting civic participation through programs that bring citizens together regardless of age, gender, ethnicity, economic status, culture, or beliefs, breaking down social barriers and encouraging tolerance;
2. promoting democratic ideals, providing free information to all citizens, promoting digital literacy, and fostering informed citizenship;
3. encouraging participation in other communities, thereby increasing social capital (bridging);
4. fostering trust through social inclusion and cohesion, promoting neighbourhood resources and providing an accessible meeting place for all, creating communities;
5. promoting local dialogue and disseminating local statistics; constructing exclusive social capital (bonding); and
6. providing a public space where citizens can work together on personal problems, encourage community participation.

Varheim (2007 & 2008) stated that librarians and public libraries both create social capital. From the point of view of social capital theory, public libraries are considered as universalistic institutions as well as social meeting places. They have been regarded as producers of trust and social capital since they provide universal access to information resources. There seems to be a great notion, certainly in library and information science, that public libraries can generate social capital. Empirical studies on public libraries and social capital have, from the beginning, being orientated towards discovering how libraries make contributions to social capital in the local context.



### **Strategies for the Creation of Social Capital by Public Libraries in Nigeria**

To understand how sustainable development can be achieved in public libraries for creating social capital, certain strategies may be adopted depending on the situation and organizational climate of the libraries. The following strategies may be considered by the public libraries in Nigeria:

1. Hosting cultural and arts activities to encourage diverse community groups.
2. Conducting of book fairs or book exhibitions.
3. Organizing community meetings, virtual meeting or awareness programs on contemporary issues.
4. Conducting outreach programs to remote communities.
5. Organising programs for children (quizzes and debates).
6. Provision of internet-based services.
7. Conducting film show programs.
8. Organizing a voter education programs.
9. Collaborating with voluntary associations/organizations.
10. Provision of universal services.
11. Designing public space to promote casual meetings.
12. Organizing a library workshop/seminar.
13. Organizing/hosting public lectures (Rajendran & Ladan, 2017).

### **Challenges in the Creation of Social Capital for Sustainable Development**

The following challenges have been identified for creation of social capital for the sustainable development:

1. Lack of a proper meeting hall/room to host or organize community meetings.
2. A scarcity of open space for festivals, social gatherings, and parking.
3. Traditional library layout and un-conducive atmosphere of the library environment to provide library programs and activities.
4. Lack of community awareness of library functions and services.
5. Inconvenience distance of the library from the community members.
6. Inadequate and out-of-date library collections.
7. The government's disregard for libraries.
8. Inadequate ICT infrastructure and facilities for library services and programs.
9. Lack of library understanding and the role to be played in the services and programs contributing to social capital creation.
10. Inadequate financial support for public libraries to provide resources and facilities for social capital activities.
11. Limited library working days and working hours.
12. Lack of children's' materials and facilities.
13. Lack of constant power supply to support library services and programs.
14. Lack of library vehicles (mobile vans) for outreach programs.
15. Inability of library directors to implement social capital strategies (Ladan & Rajendran, 2020).



## **Suggestions for the Creation of Social Capital by Public Libraries**

### *Resources Generation*

Resources generation strategies like extended services, investment on infrastructure that could give sustainable development have to be implemented with institutions' and library professionals' joint efforts. It is suggested that budgeting allocation for these libraries should increase, as well as the librarians' freedom and authority to use their budgets to meet users' current needs.

### **Role of LIS Professionals**

In order to survive and thrive, libraries and librarians must develop efficient services from minimum usage of resources and demonstrate an integrated approach of sustainable development from all ways and means. LIS professionals must develop and implement detailed and comprehensive sustainable development strategies and conduct periodic evaluation of the libraries by involving the staff and other stakeholders. If the library professionals are to survive and prosper in an ever-changing digital environment, they must be able to respond effectively to new contexts and challenges. It is suggested that they can collaborate with experts on various fields such as health, environment, internet, banking, marketing etc., to drive community growth and sustainable development.

### *Role of Professionals/Associations*

Library associations at both state and national levels shall take team efforts to impart awareness on significance and implement sustainable development practices such as creation of social capital and other related developmental activities.

### *Towards the Effective Creation of Social Capital*

In view of the present conditions prevailing in public libraries in Nigeria, three major strategies have been suggested for the creation of social capital. Firstly, public libraries can collaborate with voluntary associations to participate in the local community activities. Secondly, they can develop their capacity as informal meeting places for public. Thirdly, they can create social capital as providers of universal services to the public at large.

## **Conclusion**

The greater seriousness of the public libraries in Nigeria with regard to the creation of social capital in order to achieve sustainable development and their role draw much public attention and support in the knowledge society. Public libraries in Nigeria can build social capital by providing public spaces where citizens can work together on personal and community issues. They can also reach out local community foundations that raise and convert financial capital to social capital through grants that brings people together. Therefore, public libraries in Nigeria need to be more imaginative, more willing to adopt and experiment with new technologies and innovations, more open-minded and more pro-active, only then can they be sustained with the technology wave and achieve sustainable development.



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**Dr. Abubakar Ladan** was born in Kankara, Katsina State and obtained his DLS, BA LS, MLS at BUK and Ph.D. in Library and Information Science at SRM University, Chennai. He joined Umaru Musa Yar'Adua University, Katsina, in December, 2005 as an Assistant Librarian and rose to the rank of Principal Librarian. He served in various capacities as Acquisitions Librarian, Circulation Librarian, Head, Technical Services, Head, Reader Services, and taught UG and PG courses in the LIS Department, respectively. Dr.

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## **MEETING THE INFORMATION NEEDS OF PEOPLE WITH DISABILITY THROUGH MOBILE LIBRARY SERVICES IN NIGERIA**

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### **ABSTRACT**

*This study discusses meeting the information needs of people with disabilities through mobile library in Nigeria, it focused on disability person, their information needs and considered people with disability as ones who cannot functions well, they oftentimes referred to as people with impairments such as blindness, deafness, crippled and mentally retarded, concept of information need was examined and information needs of people with disability highlighted to be :recreational, medical, religion, educational and employment needs, concept of disability was also dealt with, mobile library for people with disability explained as library services that does not stay in a place which move from one place to another to served people with disability and through mobile devices such as cell phones computers, UM PCs (Ultra Mobile Pc) and through the use of internet, the paper summarized the possible mobile library services to people with disability to identified the information needs at first instance, promoting love for reading , using interest of internet to facilitates information usage, couple with education and life-long learning entertainment, paper concluded that people with disability also have right to good and quality information which can be provided through mobile library.*

**Keywords:** Meeting, Information needs, Disability, Mobile library, Nigeria

### **Introduction**

Meeting Information needs is very essential in every facet of lives and living, most especially the targeted group called “disabled”, to this extent, meeting information needs transcend beyond what we can trivialize in our society that full of information explosion, therefore every government, organizations, institutions, businesses, educational institutions and so on needs correct and adequate information to make decisions and implementation of policies. The term information need is often understood as an individual or a group's desire to locate and obtain information to satisfy a conscious or unconscious need. Rarely mentioned in general literature about needs, it is a common term in information science. A need is something necessary for an organism to live a healthy life.



Information is an important resource for national development and should be considered as a prerequisite for sound decision making in all areas of activities such as: research, development, academics, planning, industrial development, and investment. The most critical commodity influencing changes in the urban situation is information. Ajibero (2000) opined that, "information value is frequently expressed as a derivation from communication utility". Information is an important resource for individual growth and survival. Information is needed to be able to take the right decision and also reduce uncertainty. Yusuf (2012) cited Taylor (2008) viewed that information need is the personal and unconscious condition. He articulated four levels of information needs that an individual pass through before he or she makes formal encounters with information professionals. These levels are the visceral need, conscious need, formalized need and compromised need. Information is needed at every level of business activities. Information is a vital resource for everyone.

The library must find and select the most profitably useful information for its clients. Mbeki (1997) further explained that the concept of a caring society is strengthened and deepened when we recognized that people with disabilities enjoy the same rights as we do and that we have a responsibility towards the promotion of their quality of life. Junren, Rong and Ruide (2021) emphasized on the unceasing advancement of mobile technologies, the mobile library service has changed dramatically. Library/book on wheel is the oldest mobile library service, and also known as mobile bus library, mobile train library, and bookmobile. It transfers some library resources from library to places where there is no library, such as rural districts or remote areas, and provides library services essentially to disabled persons.

For disability, these set of people suffer humiliation, segregation, and discrimination in accessing information in all sectors, consider the banks of various types, buildings structure of various companies, churches and mosques, markets places and malls including our universities buildings and even library that is popularly regarded as heart of university, all of these mentioned are built without consideration of people with disabilities, then the library must do something different to reach out to these people with disability through mobile library, hence professional educators tend to classify people with special needs by the degree of their disability. The magnitude of disability differs from one group to another group, ranging from blindness, deafness, crippled persons, and the mentally retarded. Oftentimes, the terms of impairment, physically challenged, handicapped, disabled, and special needs persons are used interchangeably (Atabor, 2015).

Nevertheless, everyone has certain abilities that can explode and useful with appropriate education and training even with their disability, to be developed to maximum capability. No matter what the state of an individual's disability, it is necessary for the library to meet the information needs of people with disabilities, since the library in any establishment is a repository of information sources. Major functions of a library include the collections, organization, storage, and dissemination of information. Miaoji (2021) established a library mobile user behavior analysis model for personalized information services can enable the library to better discover the characteristics and needs of mobile user.

A library is a resource center for students, teachers, researchers, and others. The involvement of libraries in meeting the information needs of people with disability will avail them the opportunity of wider exposure and bring them out unfair treatments of



humiliation, segregations and discrimination that they suffer, so that they will be able to have information at their disposal to be a better person in the society and have equal right with people without disability when it comes to getting information from the library of any types especially academic library. Kiruki and Mutula (2021) recommended that library websites must contain disability services page containing information specific to persons with disabilities and libraries should develop disability policy to provide guidance on provision of information services to persons with disabilities. This paper borne out of the interest and passion to examine how library with a lot of collections stocked can meet the information needs of people with disability through mobile library and information communication technology in Nigeria.

### **An Overview of the Literature**

#### *Concept of Information Needs*

The concept of information need is a factual situation in which there exists an inseparable interconnection with 'information' and 'need'. Information originates and generated because there exists a need or an interest. The presence of a purpose for the use of information leads us to conclude that it is needed. Thus the presence of what might be called an 'information purpose' is a necessary condition of information needs (Sankpal & Punwatkar, 2015). According to Leckie *et al.* (1996), information need is not constant and can be influenced by several variables. Such as age, experience, education and geographic location, etc.; the context within which the information need arises, the frequency, importance and the complexity of the tasks are also important factors. All of these factors can influence the formulation of information need.

Crawford (2003) described the information need to be very difficult to define and measure but it involves a cognitive process that may operate different levels of consciousness, hence may not be clear even not the inquirer. Yusuf (2012) cited Thompson (2004) further asserted that, needs is objective in the sense that, they are what one must look for to support his or her profession. Information needs could be seen as a demand requirement and want desire. Haruna and Mabawonku (2001) contend that needs arise when the state of possessed knowledge is less than that needed to deal with some issues, and that information needs are diverse, consistently changing and not amenable to generalization.

Wilson (2000) opined that information needs are influenced by a variety of factors such as the range of information sources available; the uses to which the information will be put; the background, motivation, professional orientation and individual characteristics of the user. Other factors are socio-political, economic, legal and regulatory systems surrounding the users as well as the consequences of information use. The quality of sources of information available to the users is also important because relevant sources are most likely to get useful information.

#### ***Information Needs of People with Disability***

The information needs of people with disability conditions extend beyond medical information to know how to manage their daily living and the stresses that having a disability can bring: different information needs require different information sources. Health professionals, parents, the psycho-social information needs, others with the same condition and written information are important information sources; it is not possible to use age to predict when a young person may need a particular piece of information. Atabor (2015) categorized the information needs of people with disability to



include educational, recreational, medical/health, religious, employment, civil and socio-cultural information needs.

#### ***Educational Information Needs***

People with disabilities face multiple forms of discrimination, stigmatization, and humiliation from people without disability which normally leads to their exclusion from society and school, people attitude towards the people with disabilities is worrisome as well as lack of resources to accommodate them, compound with the challenges they face in accessing education while lack of access to educational information needs becomes an issues, then an equal concern is the inability of the education system to ensure quality education for people with disabilities. All people with disabilities need special education information needs and have right to an education which is appropriate to their needs, the arms of education for people without disabilities are the same arms apply to all people with disability. Educational information needs should be about enabling special people with their disabilities lives a full and independent life so that they can contribute their quota to their communities, societies and cooperate with other people to learn, if adequate educational information needs are provided.

#### ***Recreational Information Needs***

Peniston (1998) stated that, perhaps nothing reveals so much about individuals as to how they choose to play, how they invest their time and energy for leisure time. Leisure is that time free from the demands of school, work, or required activities of daily living. Everyone needs regular recreation that develops skills, promotes good health, relieves stress, facilitates social interactions, and provides a general joy and happiness for a living. For recreation, we choose activities at which we can be successful. A good reader reads. Athletes seek sports' activities. Musicians lose themselves into music. Visual artists paint or draw. Craftspeople create. Social individuals engage in group activities. Observers appreciate the efforts of others - whether a basketball game, painting, fine meal, or concert, reading newspapers People with disabilities need information in all of these aspects and must be adequately provided.

Because every person has the freedom to participate in social life and to do his / her activities, people with disabilities often have discretion in terms of participation in social life. Today, the most important obstacles for people with disabilities are limited freedom to act. For education to be permanent and effective, it is necessary to meet the recreation activities of the individuals at an early stage. The habit of recreational activity acquired in childhood may become a permanent and desirable behavior in later periods.

#### ***Medical and Health Information Needs***

For some people with disabilities, access to health care can be challenging. See what health care providers and public health professionals can do, to address the barriers that keep people with disabilities from obtaining the health care services and programs they need to stay healthy. People with disabilities need information on health care and public health programs for the same reasons anyone else does to stay well, active, and a part of the community. However, for people with disabilities, access to health care can be difficult, because they lack access to information that can guide them for health services.

Studies show that individuals with disabilities are more likely to report that people without disabilities on: having poorer overall health, having less access to adequate



health care, engaging in risky health behaviors, including smoking and physical inactivity, to save them from all these, libraries can be involved by providing adequate information on the health care. Health disparities and secondary conditions can be the result of inaccessible to health care facilities and equipment, lack of good knowledge among health professionals about specific differences among people with disabilities, transportation difficulties, and higher poverty rates among people with disabilities. Academic libraries can print leaflets or flyers and handbills to state the descriptions of how they can be treated of their disabilities, the leaflets can be placed at the entrance of the library for them to pick and read for their health care services.

### **Religious Information Needs**

Religion is a cultural system of designated behavior and practices, moral, worldviews texts sanctified places, prophecies, ethics and organizations that relates humanity to supernatural, transcendental or spiritual elements. The intersection of disability and religion concentrates on how disabled people are treated within religious communities, the religious texts of those religions, or the general input from the religious discourse on matters relating to disability. Studies on the relationship between religion and disability vary widely, with some postulating the existence of ableism and others viewing religion as a primary medium through which to assist disabled people.

### **Information Needs for Employments**

People with disability needs information on employment to serve the community they belong, since they are recognized as citizens of a country, going by that indication, twenty-five years ago, Congress enacted the Landmark Americans with Disabilities Act (ADA), which prohibited discrimination on the basis of disability in employment and other aspects of community life. Since then, public policy at all levels has demonstrated growing support for the employment of people with disabilities, as part of a broad societal shift toward promoting these Americans' independence and full participation in mainstream society.

Today, the employment of people with disabilities is seen not only as a civil rights issue but also as a practical boon for businesses, government budgets, and citizens. Employing people with disabilities has been shown to benefit businesses, for example, as a result of lower turnover, increased productivity and access to a broader pool of skilled workers. Also, increasing job opportunities for people with disabilities "save the federal and state government money by reducing dependency on cash and medical and disability benefits," according to a 2013 Employer Assistance and Resource Network report. Employment means greater economic self-sufficiency, an opportunity to use their skills, and more active participation in community life; the library should provide them information on employment opportunities.

### **Civic Information Needs**

Civic information needs is a right of individuals comprised of actions and attitudes associated with democratic governance and social participation, civic responsibilities can include participation in government, church, volunteers, and memberships of voluntary associations. Civic responsibility is defined as the "responsibility of a citizen". If that is the case, persons with disabilities should be eligible to perform the civic responsibility in their country, such to participate in government, to vote and to be voted for. During general election in 2019, one can boldly say that people with disability also participated in the process of election by exercised their franchise without any mayhem. However, according to the World Health Organization's 2011 World Disability Report,



about 15 percent of Nigeria's population, or at least 25 million people, have a disability. Many of them face several human rights cases of abuse including stigma, discrimination, violence, and lack of access to healthcare, housing, and education.

Nigeria ratified the United Nations Convention on the Rights of People with Disabilities (CRPD) in 2007 and its Optional Protocol in 2010. Since then, civil society groups and people with disabilities have called on the government to put it into practice. In 2011 and 2015, the National Assembly passed the Discrimination Against Persons with Disabilities (Prohibition) Bill 2009. Here comes the responsibility of the library in educating their disability library users on available civic information, so that their needs will be met on civic information need.

### **Concept of Disability**

Disability is part of the human condition. Almost everyone will be temporarily or permanently impaired at some point in life, and those who survive to old age will experience increasing difficulties in functioning. Most extended families have a disabled member, and many non-disabled people take responsibility for supporting and caring for their relatives and friends with disability (Seelman & Bury, 2001).

Disability is a complex term that includes multiple definitions, approaches and perspectives, each with its distinct angle and purpose, ranging from the very narrow to very broad boundaries, and looks very different from various models from the medical to the social and from the cultural to the local. According to Acharya (2004), there is no universally agreed way of defining and understanding disability. The definition of disability is continuously changing, and it varies greatly not only from country to country but also within each country. Barik (2009) noted that defining disability is also difficult because there are several kinds of disabilities from the one intended to integrate into society to the one for exclusion and segregation.

Hence, there are bound to be differences in the understanding of an individual or group who looks at disability from its integration and inclusion in the society and another who, for certain reasons, believes in its exclusion and elimination. Wasserman (2011) stressed that there are differences of perception and approach within the disabled individuals and groups themselves which should not be surprising since there are so many different kinds and degrees of disabilities ranging from physical to mental and developmental levels, not excluding the various kinds of invisible disabilities, some of which are not even seen and recognized as disabilities.

A general definition of disability, according to the World Health Organization manual relates to "any restriction or lack resulting from an impairment of the ability to perform an activity in the manner or within the range considered normal for a human being" (Ramesh & Singh, 2011). A disability may be physical, cognitive, mental, sensory, emotional, and developmental or sometimes a combination of these. In the broader term, people who are labeled as disabled or handicapped because they look different from the rest of the society on account of their appearance or behavior or capacity to learn and develop. Rehabilitation Council of India (1992) defines a disabled person as one "who in his/her society is regarded as disabled, because of a difference in appearances and behavior, in combination with a functional limitation or an activity restriction"

Definition of disability, according to Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, includes seven broad categories



related to blindness, low vision, hearing impairment, mental retardation, and mental illness and locomotors disability; whereas mental illness means any mental disorder other than mental retardation, mental retardation means a condition of arrested or incomplete development of the mind of a person, which is especially characterized by sub-normality of intelligence. According to the Disability Act, a person with a disability must suffer from not less than forty percent of any disability, to be certified for the same by a medical authority. A person with low vision means a person with impairment of visual functioning even after treatment or standard refractive correction but who uses or is capable of using vision for the planning or execution of appropriate assistive devices.

Thus, the term disability summarizes a great number of different functional limitations occurring in any population, in any country of the world related to the physical, intellectual or sensory impairment, medical conditions or mental illness. WHO (2001) rightly looks at disability as an: Umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure. An activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. People with invisible disabilities are discriminated because they are defective and people with invisible disabilities are usually accused of being attention seekers as they seemingly look normal (Beer, 2011). In other words, the medical model of disability can lead to misperceptions and misunderstandings that prompt some people to be "insensitive and less willing to accommodate the needs of people whose disabilities are not outwardly apparent". Due to the lack of resources, the disabled came to be considered helpless by the more privileged members of society.

They were thought to be objects of pity. In recent times, the concept of disability has come to have a socio-political construct as the rights-based model of disability has created space for it. People with a disability have, their voices and are now politically motivated to fight for the rights of the disabled. (Convention on the Rights of Persons with Disabilities, 2011)

### **Mobile Library for People with Disability**

How can the library be mobile for people with disabilities? How can Library take their services to disabled through mobile library? In order to meet information needs of people with disability, what can library do differently to help disabled persons? Since they cannot navigate the library building as people without disability will navigate it, the library can be more proactive to advance in meeting the information needs of disability through mobile library, what is mobile library? Stringer (2017) stated "any library service that does not stay in one place is classed as a Mobile Library". Anything that can be moved and carry books or relevant materials can be called a Mobile Library as long as its aim is to serve the public and disseminate knowledge to all, especially to those who find it difficult to resort to standard libraries due to old age, social, geographic and health issues like people with disability.

When we think about the library or perhaps a specific area inside a building (for example, in a school, a hospital, etc.) where books and relevant materials are kept and circulated. Hishan and Abdullah (2018) opined that some libraries do not operate behind walls, nor do they wait for their users to find them; they make their way to them in the most unexpected ways: with buses, ships, trains, bicycles, elephants, camels, and donkeys. The Library Association Record (1960) defined the mobile library as "a vehicle devised, equipped and operated to provide as far as reasonably practicable, a





service comparable to a part-time branch library". Eastwood (1991) gave an improved definition of the mobile library as "a road vehicle especially equipped and furnished to provide a professional library service direct to the people".

It obvious that two basic conditions must be fulfilled to classify a Library as Mobile: (1) to provide library services and (2) to be mobile, in other words, not to operate permanently in a specific place or area, but to move from one place to another place. Nalluri and Gaddam (2016) expatiated further that mobile technology has now come up with "Libraries in hand". Librarians are to be on the move to determine these devices which are propelling information access and ensure that they are communicating with patrons and providing web content in the most appropriate and effective ways. Librarians must be prepared to take this challenge to increase the market and demand for mobile access to personalized facts and information anytime, anywhere especially to meet the respective information needs of disability (Barile, 2010).

Users do not want to wait for the list of web results, libraries today are covering most of the technologies given by mobile industry like PDAs, Blackberry, iPod, cell phones, UM PCs (Ultra Mobile PC) and mobilizing library contents in a portable from suitable for small screen and delivering short services in the form of contents and information which devices multiple searching features (Kroski, 2008). Librarians will need to become proficient in using these devices to enable people with disability users have access to them anywhere from any place. As the information revolution continues to unfold, libraries will experiment with mobile devices and services to support the information needs of their special person users wherever they may be (Kosturski & Skornia, 2014).

Mobile devices today can run increasingly complex software, interact with cloud services, play rich multimedia content, and allow for advanced user interactivity. New hardware and technologies such as Bluetooth, accelerometers, and multi-touch screens, as well as text, messaging, smartphone software applications, mobile websites, global positioning systems (GPS), Wi-Fi, and media creation and capture tools, these are all part of the mobile environment which library in Nigeria should employed. Many of today's mobile devices are increasingly, that is, by no default means to be connected to a wireless (Lippincott, 2008). Mobile devices include laptops, net books, notebook computers, cell phones, audio players such as MP3 Players, cameras and other items. Almost every student in Nigerian Universities, polytechnics and colleges of Education especially people with disabilities owning smartphones to access the Internet, since mobile phones come with a variety of applications, which can support storing, receiving and easy access to file and use full information which students require in advancing their studies (Karim, Darus, & Hussin, 2006). Nonetheless, people with disabilities can successfully use the library resources and services through the application of and available mobile library via internet to create more electronic mode of accessibility (Fengling, 2021).

Therefore, the mobile library can use these whole several advantages to offer services to meet the information needs of people with disability through mobile devices used in the libraries such as: PDAs (Personal Digital Assistants), tablets, iPods and MP3 players, smart phones as well as cell phones. The paper summaries the possible mobile library services to people with disability in the following ways:

1. The first thing to do is to identify their information needs especially people with disabilities before meeting the needs.



2. Promoting the love for reading to people with disabilities through encouragement and support by mailing information to them at the appropriate times.
3. To provide access to the disabilities library users through cell phones.
4. Using the internet to facilitates the interest of disabilities to the usage of library resources.
5. The mobile library can help people with disabilities to have access to campus information, especially from the library or librarians' desk.
6. Providing information needs for people with a disability easy location and time saving through mobile devices.
7. Education and lifelong learning: Mobile libraries in Nigeria can offer knowledge, education, and culture to everyone, the group address here are people with disability, appropriate arranged Mobile libraries should be able to link to an educational resulted oriented, for those who are ready and eager to learn.
8. Entertainment: Mobile libraries can provide the opportunity for substantial entertainment, both through their materials and by the organization of relevant activities (for example, cultural events, projects centered around what is known as love of reading, invitations of authors, festival carnivals and shows etc.) which should be organized in cooperation with archives, museums, galleries, display and exhibitions, most especially it can be achieved during NLA Nigerian Library Association (NLA) Annual General Meeting (AGM) days or weeks of the meeting can be extended to accommodate this.

#### **Recommendations**

- 1) The information need of people with disability must be met through the mobile library
- 2) People with disability should have right to use good information communication technology devices such as PDA's, Blackberry, iPod, cell phones
- 3) There should be provision of education, recreational, religious, employment as well as civic responsibilities for people living with disability.
- 4) Library of any kind especially Academic library needs to stand up to make library home and accessible without wall.
- 5) Library is for all disabled persons deserve right to access information materials.
- 6) People living with disability should not be regarded as separated, rejected and discriminated rather libraries should see ability in disability by meeting their information needs.



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## **CHALLENGES IN USING ASSISTIVE TECHNOLOGIES FOR INFORMATION ACCESS BY THE SPECIAL NEEDS STUDENTS**

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### **ABSTRACT**

*This paper provides a review on challenges to the use of assistive technologies (ATs) for information access by the students with special needs. The study in the introduction part highlight the befitting types of information access ATs especially for the students with visual, hearing and mobility impairments. The precursors to the use of ATs for information access by the students with special needs were also highlighted. The study examine that for almost a decade, that is, from the year 2022 back to 2011 the use of ATs for information access by the students with special needs have been confronting with challenges of unavailability and inaccessibility of adequate ATs, the lack of technology operational knowledge and skills, anxiety and users reluctance to technological training, among others, which are attributed to the government and school authorities lack of commitments towards their technical and administrative responsibilities of providing ATs, AT policy and assistive technology studies curriculum for learning and acquiring the technological use competencies. The study concludes that use of ATs for information access by the students with special needs have not been given the consideration it deserves. The study therefore recommends that those who are shouldered the responsibility should provide the special needs students with appropriate and functional information access ATs, AT use policy, curriculum on AT studies, Minimum Standard or Guideline on teaching and training on the AT operational knowledge and skills, dedicated subject with appropriate lesson period allocation for daily teaching the students the ATs operational knowledge and skills, AT specialist for teaching special needs students the technology operation knowledge (TOK) and technology operation skills (TOS), librarians with proficiency in assistive technology knowledge and skills, among others.*

**Keywords:** Assistive technologies, Information access, Special needs, Students, Challenges

### **Introduction**

From time immemorial, information in whatever form serves as basis for human awareness and knowledge, a tool in the search for solutions to problems that mankind has come to grapple with, and a veritable instrument in the search for knowledge and quest to attain development. In school environment, people especially the students' use information in order to generate ideas, to be inspired, to obtain knowledge for learning, to advances their knowledge, for supplementing their class notes, for doing school and homework, in order to prepare for test, for making plans, reading news and in order to derive pleasure. These and sundry purposes posed the needs for efficient access to information by the students. In utilization context, 'access' is characterized as a factor influencing use, because the extent of efficient access to information denotes extent of effective information utilization and information needs satisfaction.



Special needs students, especially the visually, hearing and mobility impaired ones cannot conventionally access information in the same manner their unimpaired colleagues do, due to partial to total inability to see and observe information; partial to total inability to process oral information as a result of hard of hearing and deafness; and the weakness, pain, limitations of muscular control such as involuntary movements, lack of coordination, limitations of sensation, joint problems or missing limbs as a result of loss of muscular endurance, the paralysis and amputations. The advent of electronic age and breakthrough in modern technologies has brought array of cutting-edge information technologies and ATs for special needs people to use to search and get information. ATs are technologies that are specifically created, developed and adapted or modified in a specific way in order to help people with special needs to overcome challenges, enhances their functional independence and be able to carry out tasks independently.

ATs impacts the ability of special needs people to perform basic life functions such as hearing, seeing and mobility and enhances their functional performance to complete tasks that seems difficult or impossible by them. ATs are available as hardware, software, and web-based resources, and can be computer hardware or software or electronic device (Alabi & Mutula, 2019), including alternative format of information (Alberta, Philip & Duffour, 2020). Information access assistive technologies (IAATs) are the physical and digital technologies specifically created, developed or modified to facilitate information access by the special needs people, including the certain components and the functionalities of some other technologies. Low-IAATs are equipment that are non-electric. High-IAATs are sophisticated mechanical or electronic technologies usually complex and programmable.

IAATs includes items such as computers and/or electronics, the Internet technologies, computers with ease-of-access features, the tactile tools, auditory tools, screen readers software, text reader software, talking browsers, Braille translation software, information enlargement and magnification technologies; sign language videos, sign language to text translator, speech to text translator, information description and instant messaging technologies; head mouse click helper technologies, eye mouse click helper technologies, touch screens, trackballs, head pointers, eye trackers, wands and sticks, speech recognition software for information seekers with visual, hearing and mobility impairments to sensed, listen effectively, see efficiently, navigate, browse, point at and click on information for access.

Basic computer technologies such as hardware which the computer is physically made up of, such as monitor, keyboard and mouse helps in the information access. Monitor/screen is through which almost all information is visually displays and communicating from the computer to the user. Keyboard and mouse are important tools and the two most common ways that users communicate with computer-or tell the computer what they want it to do regarding information access. Keyboard allows a user to communicate with the computer using its keys. Mouse pointer /cursor/ arrow is the visual cue that helps users to points, selects, click and moves information and other things on monitor. CD, flash disk, or external hard drive, helps users to access and copy information files. Internal components allow users to store, receive, retrieve and process information.

Computers ease-of-access accessibility tools provides options for people who have learning, vision, hearing, and mobility impairments to use the 'narrator feature' to



have text information read to them, to use the 'speech recognition feature' to control their computer with voice commands or convert speech to text so that they do not need to type. Activate keyboard and visual features to make navigating their computer easier for information access. Internet technologies such as web browser and web Search engines are very helpful and allow the special needs students to search the Internet to locate and access information. Perceptible, audio and text/image expansion technologies provides students with visual impairments a chance to gain access to information through both auditory and tactile methods, text enlargement and colors enhancement. Description, translations and amplification technologies gives a chance to hearing-impaired to process and access oral information. Sip-and-puff systems are alternative input devices that allows users with mobility impairment to control their computers through means other than a standard keyboard or pointing device. They replace a computer keyboard or mouse and give the mobility-impaired users a chance to control a computer screen, navigate and select in order to access information.

Obviously, the use of assistive technologies seemingly serves as gateway to effective and efficient access to information and undoubtedly opening up huge opportunities to access both print and electronic information. Despite the benefits of ATs for information access, it is however observed that in this era of modern information technology breakthrough, the special needs students are still finding it somehow difficult to access timely information, which could be due to paucity of investigations on what should ideally be done, the commitments towards doing it and the challenges associated with it. This issue posed the need for this study in order to examine the precursors and challenges to the use of ATs for information access.

### **Precursors to Use of ATs for Information Access by Students**

A study by Marshall (2007) on a model for explaining technology usage, proposes a Quadratic (four equal parts) Usage Model and found that, actual usage of technology comprise of four factors: technical, philosophical, external and the internal factor. Technical factors include the technology and competency, which determine the ability to use technology. Philosophical factors include the cultural and personal values, which determine the motivation to use technology. External factor include technology and the cultural values. Internal factors comprise of user competency and personal values. First, the model emphasized that real usage requires both ability and motivation. Second, all four factors must cooperate at some level for usage to occur. Technical factors are required for the ability to use and philosophical factors are required for motivation. Third, each quadrant has a number of elements which combine in a dynamic fashion. Each factor is seen as a complex (multipart) set of elements, which are in flux over time.

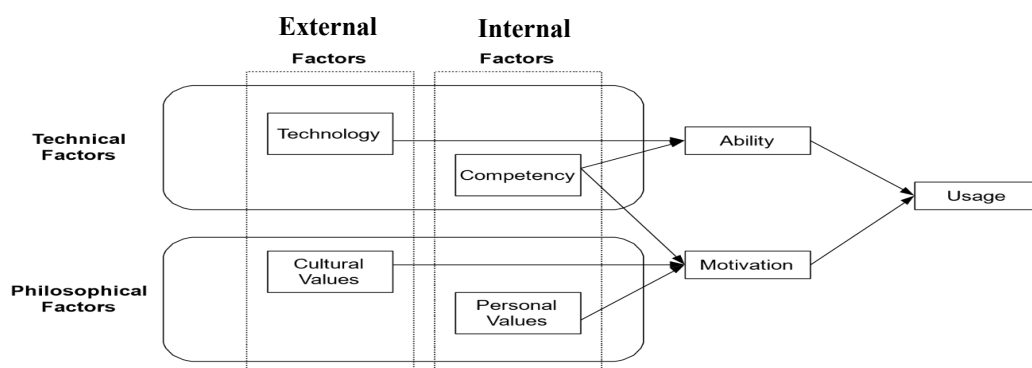


Figure 1: Quadratic Usage Model (QUM)



A study by Dominic, Joshua and Eytayo (2020) in a study found that the provision, availability, and adequacy, that is, sufficiency in terms of quantity and quality among factors predisposing the effective and efficient usage of ATs by the students. In Ghana, a study by Nyavor and Amaniampong (2020) also found that the provision and availability of technologies, amongst the factors that facilitate the use of ATs in National Inclusive Basic School. Another study by Abbas *et al.* (2018) found the task technology fits as factor influences users' use of information technology. On the one hand, a study by Nyavor and Amaniampong (2020) found the 'knowledge' of using technologies as other factor predisposing usage of ATs of which technological knowledge is an element of competency. A study by Al-Ruz and Khasawneh (2011) found 'technology skills' of which the technological skill is also an element of competency, self-confidence about technology use, and technology self-efficacy among factors facilitating technology usage.

Jamali-Phiri *et al.* (2021) conducted a study in Malawi and found factors influencing the use of ATs among children with disabilities include the atmosphere surrounding the user. Such atmosphere could be substantiated to comprise the 'external motivation' and 'user attitudes'. Huang and Yao (2020) conducted a study in Taiwan and found the users' attitude toward usage and subjective norms as having a significant impact on behavioral intention to use technologies. In their study on the rational behavior of users, Xia and Zhao (2019) conveyed that perceived usefulness and perceived ease of use of technology are two important aspects that affect users' attitudes towards use. Including self-confidence about technology use, and technology self-efficacy (Al-Ruz & Khasawneh, 2011). It could therefore be substantiated that the availability of ATs in the required ratio, accessibility to ATs, appropriateness of ATs to information access tasks alongside nature of users' impairments, and their competencies in the use of technologies predisposes effective and efficient usage of ATs/IT by the people with special needs.

Availability and accessibility of appropriate ATs hinges on its provision by whom it is responsible for. ATs competencies is to be acquired/developed. Kumar (2013) emphasized that competencies in AT are an important concern for children with impairments and which should be one of key components of compulsory extended core curriculum. A study by Bunney, Sharplin and Howitt (2015) found that competencies development requires and can be best achieved through scaffolding teaching, learning tasks, regular practice and feedback. Chan, Fong, Luk and Ho (2017) opined that in order to assist and encourage students in acquiring and developing competencies, it is essential to have well balanced and structured competencies learning tasks throughout a course, because, in practice, when planning a curriculum, the nature of competencies must be taken into consideration (Chan, Fong, Luk & Ho, 2017). The Commission on Science and Technology for Development (2018) noted that education policies should emphasize the importance of providing technological training to students, and programs and curricula should adjust and allow for flexibility so as to continuously adapt to the changing technological landscape.

It can be substantiated from the foregoing that the precursors of ATs use for information access is associated with ATs factor, competencies factor, and the bureaucratic factor. ATs and competencies are the technical factors that are required for the usage capabilities. Bureaucratic factors are required for the technical and administrative supports to the technical factors, all towards effective ATs usage and





information access. Each factor has a number of mainstay associated elements complementarily.

*Assistive Technology Factor:* Information access is a process that involves access tools. ATs serves as tools and gateway to effective and efficient access to information. These technologies should be adequately provided and available in a required quantity, functional, accessible to the users, appropriate to the information access tasks and users nature of impairments.

*Competencies Factor:* In a practical utilization context, and in order to make full use of the information access ATs, the special needs students requires more than just the availability and accessibility to appropriate information access ATs, they also needs 'technological competencies' which is the blends together of inseparably requisite knowledge about the ATs itself, the ATs operational knowledge, the practical skills of using the ATs interactively and the users attitudinal mindset toward technology. It must therefore be recognized that the special needs students should first be taught to understand about the ATs itself, the steps on how to operate the ATs and be trained about the ATs hands-on operational skills through orchestrated education and practices. Acquiring/developing ATs competencies of special needs students are educational policies and curriculum matters comprising the scaffolding teaching through classroom lessons, learning tasks, technological training through mentoring in one-on-one sessions with experts in the technology laboratory, retraining, regular practice and the technical and administrative supports in school.

*Bureaucratic Factor:* In school environment, things are done according to formal processes and ordering of necessary strategies and series of actions. In school therefore, the provision of ATs and competencies learning and training strategies are the bureaucratic technical and administrative responsibilities of government and school authorities. It is the official responsibility of these authorities to provide and made available, accessible and in a required quantity the appropriate information access ATs. It is also their responsibility to design and provide AT use policy, National Curriculum on AT Studies, Minimum Standard or Guideline on teaching and training on the AT operational knowledge and skills, dedicated subject with appropriate lesson period allocation for daily teaching the students the ATs operational knowledge and skills, ATs Proficiency Assessment Framework, AT specialist for teaching special needs students the technology operation knowledge (TOK) and technology operation skills (TOS), librarians with proficiency in AT knowledge and skills, dedicated AT support unit. These elements greatly facilitate ATs accessibility, ATs competencies development and usage.

*Usage:* This is the actual usage of ATs which is a situation surrounded by the 'bureaucratic motivation' and 'user moods'. Mood felt by the users such as positive and hostile mood about technology fits and accessibility, strategies and series of actions for gaining technological knowledge and skills greatly determine the actual usage. It also includes the perception of ATs users about its ease of use and usefulness to their information access tasks, and self-efficacy beliefs on their capabilities and level of expertise in the ATs usage.



### **Factors Affecting Use of ATs for Information Access by Special Needs Students**

A study by Samwel (2017) on the accessibility of library information resources to the users with Special Needs in Tanzania found that people with special needs faces a lot of obstacles in accessing and using both electronic and physical information resources to support learning. On the challenges, a study conducted by Babusa and Abdullahi (2022) conducted a study on utilization and availability of AT for special needs students in inclusive schools in Kaduna State Nigeria found the lack of availability of ATs and lack of ATs competencies for the use of ATs. Mansa (2017) conducted a study on provision of ATs to students with impairment in Ghana, the outcome of the study revealed that students finds it difficult to access relevant information for academic work, due to unavailability of ATs in the library. A study by Chukwuemeka and Samaila (2020) found that among the factors limiting the use of assistive devices in special education schools in Nigeria, is inadequacy of assistive devices. Kisanga and Kisanga (2020) conducted a study and found the challenges of access to and use of AT among students is shortage of AT tools.

Weerasinghe *et al.* (2015) conducted a study on barriers in using Assistive Devices, the participants described several barriers in using assistive devices, among which include limited knowledge of using modern technology. In addition, Kisanga and Kisanga (2020) conducted a study on challenges and coping mechanisms of access to AT among students in education institutions in Tanzania, the study has identified lack of knowledge on how to use computer ATs. Also, Hughes *et al.* (2014) investigated the perception of people towards the barriers and opportunities of AT in education using a questionnaire organized around several themes. The study found the lack of knowledge about AT, awareness of its benefits and the inadequate knowledge about using it. In the UAE, Almekhalfi and Tibi (2012) conducted a study and found among others the lack of technological knowledge and skill on the use of AT among people with special needs.

Furthermore, Habibu, Abdullah-Al-Mamun and Clement (2012) conducted a study on difficulties facing in using ICT in educational institutions of Uganda found the major barriers were lack of proper usage skills, among others. Bashir, Abdullahi and Onyemaechi (2021) conducted a study on integrating AT for students with disabilities in universities in Nigeria, the findings revealed challenges that hinder the use of AT by the students with disabilities include: lack of availability of resources, lack of trained instructors and absence of technical assistance, among others. UNESCO (2019) found and reported that factors associated with limited accessibility and use of ATs include limited availability of assistive devices, inadequate financing, lack of experts and technical staffs, lack of assistive technology policy.

A study conducted by Addis, Britton and Davies (2020) on challenges and barriers to the use of AT in Africa found the poor policy implementation. Ahmad (2015) conducted a study on barriers for using AT in the field of education by gathering data from secondary sources. The study found that ineffective policies, limited support from government are the main barriers to using AT devices, among others. Johnson (2011) conducted a study on why is AT underused and found 'reluctance' to use the devices among people with disabilities as one of the barriers, among others. Chaurasia *et al.* (2016) used secondary sources, such as published case studies, to investigate the effect of anxiety on the acceptance and use of ATs and found 'anxiety' as significant



barrier to the use ATs. It can be deduced and substantiated that for almost a decade, that is, from the year 2022 back to 2011 the use of ATs for information access by the students with special needs have been confronting with challenges of unavailability and inaccessibility of ATs and the lack of technology operational knowledge and skills.

### **Conclusion**

This review established classification of precursors to the use of information access assistive technologies (IAATs). The precursors are ATs factor, competencies factor, and the bureaucratic factor. Each factor has a number of mainstay associated elements complementarily. ATs and competencies are the technical factors that are required for the usage capabilities. Bureaucratic factors are required for the technical and administrative supports to the technical factors. The actual usage of IAATs is determine by the technical and bureaucratic factors, including the users' mood which comprise of their perception about ATs ease of use and usefulness to their information access tasks, the self-efficacy beliefs on their capabilities and level of expertise in the ATs usage. The challenges to the use of ATs examined includes: unavailability and inaccessibility of ATs, lack of ATs operational knowledge and skills (competencies), anxiety on the use of ATs by the special needs users, reluctance to training and in the use of ATs, as well as the government and school authorities lack of commitment in their technical and administrative responsibilities of providing the ATs policy, ATs studies curriculum for learning and acquiring the ATs use competencies.

### **Recommendations**

1. Availability and accessibility of appropriate information access ATs is a responsibility hinges on its provision by whom it is responsible for. Government and school authorities should provide the special needs with the adequate, appropriate and functional IAATs per-user ratio. This will enable them the independent and timely access to array of information of their needs and wants like their unimpaired counterpart.
2. Special needs students should be taught and train to know the various components of the IAATs to use, learn and acquire the AT operational knowledge and skills. This should be done through formal education and training as a classroom lessons and practical trainings in the ATs/computer laboratory as the case may be.
3. Government and school authorities should provide AT use policy in schools; the National Curriculum on AT studies; the minimum standard or guideline on teaching students the knowledge of how to operate the AT and the training for skills of practical use of ATs in schools; the proficiency framework that describes the different degree of skill or mastery description of familiarity with and of the ability to operate ATs/computer (basic level, intermediate level, proficient level; allocate maximum days for teaching students the knowledge of how they should operate technologies; allocate time for the lesson period on technology operational knowledge; allocate dedicated sessions for practical training for students to acquire AT/IT operational skills in this school, among others.



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## **EXTENDING LIBRARY AND INFORMATION SERVICES TO THE GRASSROOTS AND THE VULNERABLE IN NIGERIA: THE LIBRARY WEEK PERSPECTIVE**

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### **ABSTRACT**

*Library week is a period set aside for sensitizing the public on the importance of reading, reinvigorating reading habit, and celebrating libraries and the role of librarians and other library workers in transforming the society through effective service delivery. Library and information services are provided by libraries for information, education, research and entertainment needs of people. However, it has been observed that in most developing climes, like Nigeria, the downtrodden like the grassroots and vulnerable are either ignored or not adequately carried along in library scheme of activities. This is so glaring at this point when public libraries in Nigeria are poorly funded, which has profoundly affected the usual services that the grassroots and vulnerable would have benefitted from, such as public library extension services and mobile library services. The paper therefore, advocates that libraries, librarians and library associations through library week can effectively extend library and information services that would impact the lives of the grassroots and vulnerable, as well as improve their decision making capabilities. The paper identified who the grassroots and vulnerable are, enunciated the library services to be extended to them and also discussed the consequences of not extending these services to the grassroots and vulnerable in the society. The study concluded that library week offers opportunities for libraries, librarians and library associations to reach out to the public and interact in such a manner to bring library and information services closer to them, as well as sensitizing them on the need to read and importance of library to their development and growth in all spheres. It is therefore hoped that library week events impact and would continue to positively impact the grassroots and vulnerable. The study also recommended how library and information services can reach and benefit the targeted audience.*

**Keywords:** Library week, Library and information services, Grassroots, Vulnerable, Nigeria

### **Introduction**

Library week is a global event that is celebrated all over the world. It started as national library week and first sponsored by the American Library Association (ALA) in 1958, with a theme: 'wake up and read' (ALA, 2022). Ever since then, each year's library week celebration has been heralded by new theme, reflecting the need to reawaken and stimulate reading culture among the populace. Some of the themes adopted in America by ALA are: 2018, Library leads, 2019, Libraries-strong communities, 2020, Find your place in your library, 2021, Welcome to your library and 2022, Connect with your library. Sometimes, when there is need to re-emphasize a particular theme, it is repeated the next year or for some years consecutively to re-echo



the purpose. Library week was observed and is still being observed as annual event celebrated in April in libraries across the globe and all types of libraries like school, public, national, special and academic libraries participated and are still participating. It is meant to celebrate nation's libraries, librarians and library workers' contributions, promote library use and support effective library and information services in countries of the world.

In Nigeria, library week was initiated by the Nigerian Library Association and approved on 5th February, 2015 at Oshogbo, Osun State, during the Nigerian Library Association Council meeting. Library week having been approved eventually kicked off in 2016 (from 21st-25th November) with a theme: Equitable Education and Lifelong Learning opportunities for Sustainable Development in Nigeria: The Role of Libraries. Since then, it has become an annual ritual. Different themes have been used in Nigeria on annual basis. For the 2021 event 'Library and Information Services for the Grassroots and Vulnerable' was used, while the theme for 2022 is "Revitalizing School Library System in Nigeria: The Way Forward". With the 2021 Nigeria Library Week themed 'Library and Information Services for the Grassroots and Vulnerable', this paper dissects the key variables and bringing into perspective the functional definitions of the key variables, which basically involve the following: library, library week, grassroots and vulnerable, library and information services, and consequences of not extending library services to the grassroots and vulnerable.

Thus, the specific objectives of the paper are to:

1. define what a library is;
2. conceptualize library week, origin, aim and developmental strides;
3. clarify what grassroots mean;
4. find out what vulnerable stands for and who the vulnerable are;
5. identify the library and information services that can be extended to the grassroots and vulnerable and how; and
6. enunciate the consequences of not extending library and information services to these identified groups.

All these specific objectives shall be related to the role of library in transformation of the society, bearing in mind what library, through library week events, can offer the ordinary man and those that may not be opportune to effectively use the library for one reason or the other.

### **Conceptual Clarifications**

#### *Library*

Library can be defined as an organized collection of information resources like books, journals, magazines, newspapers, audio-visuals, among others in print and electronic formats, meant for reading, studying, consultation, reference, research, information, with a professionally trained librarian and other staff readily available to assist users to make effective use of such information resources for their varied needs. It can also be defined as an organized collection of books and other information resources kept for information, reading, studying and research purposes. Libraries and education are noted to be two inseparable twins (Siamese) and indivisible concepts that share a symbiotic relationship (Akidi, 2015). It is important to note that the advent





of information and communication technology (ICT) and the outbreak of some natural occurrences like the COVID-19 pandemic, Ebola, among others, has made libraries to retool and reinvent themselves to the extent that whether people visit the library in person or virtually, libraries offer endless opportunities to transform lives through information, education and lifelong learning.

Libraries are broadly categorized according to their target audience, purpose, as well as the nature of information resources stocked. The major types involve the following:

1. School libraries, found in primary and secondary schools.
2. Public libraries, found in states with branches at local government areas.
3. National libraries, noted as the apex library of the nation with branches in all the states of the federation.
4. Special libraries, found in research institutions and other organisations.
5. Academic libraries, found in universities, colleges of education and polytechnics.
6. Libraries can also be categorized as physical, digital/electronic, virtual and hybrid libraries.

#### *Library Week*

Library week is an event specifically observed to highlight the essential roles libraries, librarians, and library workers play in transforming lives and strengthening communities. ALA (2022) stated that library week is a national observance first sponsored in 1958 by the American Library Association (ALA) and libraries across the country each April to celebrate the contributions of nation's libraries and librarians as well as promote library use and support. It started as a weeklong event developed with the intent to motivate people to read, promote library use, as well as support and show appreciation to their local libraries.

Library week took its root from the discovery that Americans were no longer reading but glued to their radios, televisions and musical instruments, with little or no attention paid to reading of books. The scenario became worrisome and of great concern to the stakeholders in book-trade like librarians, writers, publishers and bookshop owners, among others. This necessitated the founding of National Book Committee, a non-governmental organization in 1954 by the American Library Association in collaboration with the American Publishers Association, charged with the responsibility of ``encouraging people to read in their increasing leisure time`` (National Day Calendar (2022), among other acclaimed `ambitious` goals.

In carrying out the given mandate, ALA (2022) averred that the National Book Committee developed a plan action in 1957, with an idea of annual national library week that is aimed at arousing reading interest in people. This is owing to the belief that arousing reading interest in people will invariably encourage buying books, reading books as well as using libraries. It would also make publishing industries to thrive and writing interest become commercially rewarding and more profitable. The national library week commenced in 1958 with a theme "Wake up and read", which was a clarion call on Americans to fall in love with reading again and to discard all distractions. The theme was repeated in 1959 to lay more emphasis on the need to stimulate reading interest in Americans. Afterwards, each year carries a new theme till date and the month of the celebration is usually April, with different dates as chosen by ALA.



However, themes are repeated when necessary and to buttress the importance attached to such theme, as found in eight themes repeated at different periods as follow:

1. 1958 and 1959- Wake up and read
2. 1968 and 1969 - Be all you can be ... read
3. 1993-1996 - Libraries change lives
4. 1997 and 1998 - Kids connect at the library
5. 2001-2003 - At the library
6. 2004 and 2005 - Something for everyone at your library
7. 1999 and 2000 - Read! Learn! Connect! at the library
8. 2016 and 2017 – Libraries transform (ALA, 2022).

Outside the above years that library week themes were repeated, other years from 1960 to date were given unique themes to reflect the need of the time concerning campaigning for lifelong reading and learning, importance of library to individual and societal development and also promotion of library use and support. Furthermore, different countries have the mandate to develop their themes and engage their library associations, libraries and librarians in celebration of the library week event. Ahiauzu (2022) stated that it is important to note that after 20 years of successful library week celebration organised by the national book committee, and having delivered on the mandate, ALA disbanded the committee in 1974 and not only sponsored but took up the sole responsibility of organizing national library week. The author emphasized that ALA decides on themes and dates for each year's event ahead of time to enable donor agencies, institutions and individuals who would love to support the library week activities to prepare ahead and equally include such support in their annual budgets.

The themes of the last five years of American national library week, starting from 2018 to 2022 are the following: 2018, Libraries lead; 2019, Libraries-strong communities; 2020, Find your place at the library, 2021, Welcome to your library and 2022, Connect with your library. This year's National Library Week "Connect with Your Library," according to Shannon (2022) promotes the impression that libraries are places to get connected to technology by using broadband, computers, and other resources. The theme also emphasizes that libraries offer opportunities to connect with media, programs, ideas and classes, in addition to books. Most importantly, libraries also connect communities to each other, which is a clarion call for communities to get involved, join, visit or advocate for their local libraries. The slated date for the event in April is 3rd - 9th.

From the Nigeria perspective, it can be noted that though readership promotion campaign was initiated by the National Library of Nigeria and commenced since 1982, library week was initiated by the Nigerian Library Association and approved on 5th February, 2015 at Oshogbo, Osun State, during the Nigerian Library Association Council meeting. Library week having been approved eventually kicked off in 2016 (from 21st-25th November) with a theme: Equitable Education and Lifelong Learning opportunities for Sustainable Development in Nigeria: The Role of Libraries. Since then, it has become an annual ritual celebrated by all the state chapters of the Nigerian Library Association and all libraries in the nation and the Nigerian Library Association is saddled with the responsibility of crafting the theme for each year event. The theme for 2017 was Information literacy for sustainable development in Nigeria, 2018, Libraries



and social media as catalyst for national unity and security, 2019, Library services for sustainable development in Nigeria, 2021, Library and information services for the grassroots and vulnerable, and 2022, Revitalizing school library system in Nigeria: the way forward.

Ahiauza (2022) pointed that the celebration of week in Nigeria, aims at encouraging the general public to read books; have books in the homes, provide books to their children outside recommended texts in schools; and appreciate libraries, librarians and the work they do. In the same vein, state governments are encouraged to set up community libraries and fund the existing public libraries, as they are the only avenues for the vulnerable and grassroots to access information resources and also find conducive reading spaces. Activities of library week in Nigeria include but not limited to the following:

1. Visitation to schools, hospitals, motherless baby's homes and correctional centres and discussing on reading habit as well as presenting book gifts, shelves and computers, among other library items
2. Visitation to hospitals to provide reading materials to the sick, and also to hospital antenatal and maternity wards to sensitize pregnant women the need to read to unborn children.
3. Visiting homes for the handicapped and elderly and providing them with reading materials
4. Building or donating buildings for establishment of public, national library branches or community libraries
5. Drawing the attention of government to the importance of libraries by visiting government functionaries and discussing library matters
6. Radio and television programmes aimed at sensitizing the public on reading, reading habit and importance of library to individual and societal development
7. Debates, quiz, round table discussions (colloquium) and presenting papers on the theme of the year.
8. Rally to different places in the state and communities. Such places include schools, markets, parks, along the streets and public institutions to educate the citizenry on inestimable role of libraries.
9. National Day Calendar (2022) added that library week activities among others, include librarians volunteering at libraries, visiting their local libraries, supporting library fundraisers and attending library events. Shannon (2022) also maintained that part of the activities in library week celebration involve visiting library, uniting against book ban and participating in library promotion in the social media. Among all the activities carried out during library week event, book donations feature most.

In addition to the above mentioned activities, extending library and information services to the grassroots and vulnerable, which is the focus of this paper is fundamental.

### **Grassroots**

The word 'grassroots' means ordinary people in a society or organisation, the very foundation or source, the basic level of society. It can also be referred to as the public, the ordinary man, common, mass/masses, among others. Dictionary.com defines grassroots as 'the common, ordinary people, especially as contrasted with the



leadership or elites of a political party, social organization, etc" (Cambridge Dictionary, 2021). Library and information services packaged in different formats are available and should be extended to this category of people, capable of getting them informed, educated and entertained to become useful members of the society and contribute to the economic, social and developmental well-being of the nation. Libraries offer information and information resources that can curb youth restiveness, cultism, banditry, kidnapping and other vices that are threats to societal peace and progress by positively engaging the youth and taking their minds away from crimes and all forms of terrorism.

Kennedy (2022) opined that for truly sustainable grassroots programs at the local level to succeed, there must be a reflection of the community's real needs and values. This means that libraries must tailor their information services towards the actual needs of the grassroots and vulnerable groups. The programs offered by libraries must embrace community information needs, values and knowledge in solving local problems. In providing library and information services for grassroots development, capacity building is fundamental as it promotes inclusiveness and resilience, which offer opportunities for communities to address their local issues and balance competing interests.

Thus, instead of librarians extending library and information services to a community and then leaving, they should incorporate building the capacity of the grassroots and vulnerable to enable them go on to solve problems into the future. Grassroots development therefore, combines participatory approaches and local capacity building to empower the grassroots and vulnerable to develop as a reflection of their own needs and values. By so doing, grassroots development can help communities lead happy, informed, healthy and prosperous lives. With library and information services tailored towards the needs of the grassroots and vulnerable, the society becomes a better place as the children, youth, young adults, and even the elderly would be gainfully engaged as access to information and information resources is guaranteed.

### **Vulnerable**

The word vulnerable refers to people belonging to a group within the society that is oppressed, marginalized group, or more disposed to harm, as well as those in predominantly dangerous positions and as a result are less capable of defending themselves. Vulnerable population encompasses "groups and communities at higher risk of poor health status and healthcare access, experience significant disparity in life as a result of the disparities or barriers they face in social, economic, political and environmental resources, as well as limitations due to illness or disability" (National Collaborating Centre for Determinants of Health (NCCDH), 2022). Vulnerable according to Rukmana (2014) are individuals who are at greater risk of poor physical, social and health status, among others. Such group equally lack access to information and education. People are considered vulnerable because of disparity in physical, social, information, education, economic and health status when compared with the dominant population. They have the tendency to contract diseases or illnesses and are equally less able to anticipate, cope with, resist or recover from impacts of hazards or disasters. The minors, youth, young adults, aged, pregnant women, handicapped and others who are at higher risk of harm than others belong to this populace.



Vulnerable equally refers to being predisposed to diseases or infection, security risk, drug abuse, dropping out of school and capable of being emotionally or physically injured.

They equally have the tendency to be misinformed or disinformed. Thus, the vulnerable are also those exposed to fake news and misinformation because they cannot easily access the library owing to non-availability of library and its services in their areas or are handicapped in one way or the other, which makes access to information difficult. Those exposed to hunger are also vulnerable because they cannot even afford to eat well to talk of buying books or engaging in educational pursuits. The library being poor man's university (particularly public or community libraries) is meant for such people.

Other vulnerable are motherless babies, prisoners, patients hospitalized, village women who do not have access to information of various kinds in health, agriculture, birth control, disease control, among others. Students, who may not have access to information resources or are misinformed by their peers or through social media platforms being filled with fake news, are not exempted too. All these categories of people need different kinds of information resources to rescue them from such vulnerability and library has the potential to extend library services and resources to such group. Newspapers, magazines, books on health and well-being, love and life, security, disease control, and other informative and educational texts can liberate such individuals and transform their lives. Thus, library and information services must be extended to the grassroots and vulnerable for personal development, and also the benefit of the society in general.

Library and Information Services to be Extended to the Grassroots and Vulnerable  
Library and information services are opportunities offered by the library to inform, educate, enlighten, and entertain library users. They are services provided to ensure that books and other information resources are maximally used for the academic achievement, research, information, personal development and entertainment needs of the actual and potential users of the library and information centres in the communities. Library week is an opportunity to extend library and information services to the grassroots and vulnerable of the society, who can be seen as the downtrodden.

As library week is an annual event organized to sensitize the public on the role of libraries and also to stimulate or reinvigorate reading habit among the populace, libraries, librarians and library associations in Nigeria should leverage on this annual ritual and form a synergy to address the challenges of education inequality as well as digital divide to help the grassroots and vulnerable by extending sustainable library services to these important groups of the society. This they, can achieve, by providing quality educational opportunities for children and young adults in Nigeria through open access libraries with carefully crafted book collections and holistic educational, cultural and community programmes as piloted in Zambia (Lubuto Public Library Project, 2015). Taking a clue from Lubuto public library project, public and community libraries that are free and open to the public should be established.

*Reviving Public Libraries in Nigeria:* Public libraries and their branches in the various states of the federation should be revived and their services extended to the grassroots and vulnerable of the society. The Public libraries should be designed for children and specifically target children excluded from formal education, including youth living on streets as well as children in extreme and desperate poverty. Nigeria has a lot



of children and youth that are in the above state like the almagiris, homeless children, those that hawk wares on the highways and streets of towns, beggars and school drop-outs, among others. Thus, library and information services should be tailored around these groups to curb some of the menaces threatening Nigeria today like kidnapping, banditry, armed robbery, internet fraud, etc, as any child or youth gainfully engaged will hardly think of crimes. Librarians should help to catch them young through extending effective library and information services to them. Essentially, in providing library and information services to the grassroots and vulnerable, the primary thing to do is reviving public libraries and their branches. Thus, public library services in such states or local government areas must be made more functional to be able to serve its useful purposes to the people.

*Establishing and Sustaining Community Libraries in Nigeria:* Establishing and sustaining community libraries in various communities of Nigeria is a sure way of extending library and information services to the grassroots and vulnerable, as it will bring the services closer to the people. In doing this, dedicated professional librarians, and library associations in Nigeria should form partnership and work diligently to provide functional community libraries, provide comprehensive and relevant book collections and ensure that such community libraries serve as educational, informational, cultural and social hubs for young people and even the old.

As a social responsibility, the host of the community libraries can be made responsible for providing staff and managing the libraries, while Nigerian library associations take the responsibility of training staff and providing professional development guidance and assistance. Furthermore, staff and volunteers can be librarians from such local communities, working or residing around such areas or those who have benefitted from library services and have come to give back to the children or young adults using the library today.

*Encouraging Availability of Functional School Libraries:* Librarians, libraries and library associations in Nigeria should leverage on library week event to encourage and support establishment and sustenance of functional school libraries in primary and secondary school education in the nation. Such school libraries should be regularly visited during library week events and beyond, to ensure that adequate resources are provided to cater for the information needs of the users. Librarians and library associations in Nigeria should see school libraries as a pet project and maintain regular donation of books and other resources to take care of the curricula as well as leisure reading. Furthermore, librarians should volunteer to serve in school libraries and also train library assistants that are serving in such libraries rather than leaving the school libraries in the hands of English language teachers and library prefects. The need to encourage availability of functional school libraries has been captured in the 2022 theme, which is "revitalizing school library system in Nigeria: the way forward".

*Visiting Schools and Other Important Places in Rural Communities:* Interestingly, library week activities entail visiting schools. The Nigerian Voice (2019) stated that the Anambra State Library board weeklong activities for the 2019 library week event featured activities that ranged from sensitization of the public on the importance of library to visitation of various institutions and strategic places. The sensitization program also involve rally to important places, like schools, parks, markets, streets and public institutions. It is therefore vital to emphasize that activities of library week event should consider schools in remote areas to identify their problems and know their areas of need. This is because it has been observed that many librarians normally



concentrate their library week activities on urban areas at the detriment of the rural dwellers.

***Establishing Reading/Book Clubs in Schools and Rural Communities:*** Establishing reading /book clubs in schools and rural communities will positively impact the grassroots and vulnerable. This is sequel to understanding that reading, according to Amarteifio (2019) is very critical to every child's education and overall development, as well as the conduit to high performance and success in school. Early childhood reading habit develops in the child an impressive capacity for imagination, critical thinking and a precursor to creativity and innovation. A book club is defined by Chikezie (2018) as consisting of a group of people who come together to discuss and share knowledge on books they have read and express their opinion about the books with the aim of learning and promoting reading culture among people. As custodians and gateway to knowledge, librarians, libraries n and library associations in Nigeria should as a matter of urgency, form reading/book clubs in schools and rural communities to help the grassroots and vulnerable develop reading culture and become passionate lifelong readers.

The Nigerian Library Association in collaboration with librarians and the managers of public, community and school libraries should build story-time, drama and mentoring into their programme of activities to reinforce the educational, emotional, social and informational development and transformation of the children and young adults in the local communities.

1. ***Story Time:*** The community libraries established shall engage in story time event as one of its core mandates. This is because story telling both in English language and local languages is a traditional method of early childhood education and equally draws people to their culture. During the story time, reading and read-aloud sessions are included, which are essential components of literacy development skills in children. According to Luputo Library Project (2015), storytelling is a traditional means of transmitting values to generations and directly connecting young people to their roots and society. The stakeholders and partners required in ensuring the success of this story time programme are the community library staff, members of library association, librarians, volunteers and teachers within the community.
2. ***Drama:*** Drama is another kind of services provided by libraries. Public, School and community libraries can develop performing arts groups that can adapt important books and stories for performance so as to draw more readership as well as illuminate understanding of such books. This is another major way of imbibing values in children and youth of the grassroots and vulnerable.
3. ***Mentoring:*** Mentoring is a service that addresses the psychosocial support and life skills training needs of the grassroots and vulnerable by teaching them values and offering guidance and counseling in various areas of life. Nigerian Library Associations, librarians and managers of public and community libraries can engage the services of professionals in various fields of knowledge to visit the established community libraries and speak to the library users, especially the children and youth. Librarians are also seen as role models and are equally well positioned to mentor community library users.
4. ***Inculcating Information Literacy Skills:*** The grassroots and vulnerable require the consciousness of knowing when to seek information, competencies to identify, find



and locate the needed information, ability to evaluate information and use the information effectively for solving their problems in education, information, economic matters, health, political and other social needs for efficient decision making. The library and librarians have the capacity to inculcate these skills to help them actualize healthy and fulfilling lives.

5. *Provision of ICT Facilities:* Library associations, institutions and librarians can leverage on library week event to assist in extending ICT facilities to community and public libraries, making such libraries a hub of information in the communities where they are located. Through advocacy, ICT facilities like laptops, desktop computers, palmtops, iPods, etc can be provided in partnership with the relevant ministries and agencies like TETFund, Nigerian Communications Commission and Ministry of Science and Technology, National Information Technology Development Agency, among others that may be willing to provide such community services as social responsibility. This gesture will help in bridging the digital gap existing between the children in the townships and those in remote areas.
6. *Reviving Mobile Library Services:* Mobile library services are services that take library and information services to the users in all nooks and crannies of the society. It is intended to make library and information services easily and readily available to the grassroots and vulnerable. Unfortunately, public libraries in Nigeria are not adequately funded, making mobile library services moribund. Reviving mobile library services in Nigerian public libraries is a welcome development that will be a succor to the grassroots and vulnerable as all the nooks and crannies of the society where either public or community libraries have not reached will be served with their information needs through mobile library services.
7. *Developing Entrepreneurial Skills in the Grassroots and Vulnerable:* Libraries, librarians and library associations can organize programmes that would help the grassroots and vulnerable to gain entrepreneurial skills for better living and also become employers of labour.
- 8.
8. *Reviving Library Extension Services:* It has always been the pride of public libraries to extend their services to those that for one reason or the other may not be able to visit the library for their information needs. Extension services are provided to prisoners and other detained inmates in correctional centres, patients in hospitals, handicapped, rural dwellers, among others. It is quite disheartening that this essential service of public libraries is dysfunctional owing to paucity of funds. Thus, the Nigerian library associations, library institutions, librarians and volunteers should help to revive this all important service through lobbying and advocacy. When library extension services are revived, the grassroots and vulnerable will benefit from such services as library and information services will be extended to them at the comfort of their homes or village squares to enable access to information resources of their interests.





### **Consequences of not Extending Library and Information Services Opportunities to the Grassroots and Vulnerable**

The consequences of not extending library and information services opportunities to the grassroots and vulnerable are numerous, which include but not limited to the following:

1. *Persistent Poor Reading Culture:* Persistent poor reading culture is one of the consequences of ignoring the grassroots and vulnerable in library and information services provision. This is because the grassroots and vulnerable takes the greater percentage of the total population of Nigeria and already the state of the nation's reading culture has been consistently bemoaned as being too poor. The reading culture of Nigerians and particularly the youth has been noted to be persistently poor to the extent that even the literates have turned to alliterates, as they have equally stopped reading, which could be attributed to many economic and social distractions. People's love for reading has been eroded as they are more interested in watching television, and fiddling with their handheld devices (frivolous pinging, chatting and watching programmes/sites that are not healthy, educative and informative).
2. *Resorting to Crimes and other Societal Menace:* As it is always said that an idle mind is a devil's workshop, children and youth among the grassroots and vulnerable that are not gainfully engaged can easily resort to crimes and other societal menaces. Thus, there is need for libraries to fill the vacuum by extending effective library and information services that will transform the youth through books and other engagements that have the capacity to take their minds away from crimes.
3. *Becoming Susceptible to Fake News, Disinformation and Misinformation:* It has been noted that incessant posting of fake news, misinformation and disinformation in the various social media platforms has made the youth, young adults and even the aged vulnerable, as they do not have alternative, which the library gives. People can be better informed by reading books, and other information resources, which the library provided, in addition to other media like listening to the radio and watching television on health matters. This is because when people are not well informed, they will be deformed as well as remain vulnerable. However, it is unfortunate that some of the grassroots and vulnerable may not have radio and television, making it imperative that library services on health and healthy living are extended to such group.
4. *Making Life Challenging Health Decisions:* It has been noted that when teenagers and young adults are not exposed to adequate health information, they become susceptible to making life challenging health decisions that will affect their progress in life. Health information is required in the areas of sex education, menstrual hygiene, puberty, drug use and abuse, which are all damaging to the teenagers' life and career. Health and healthy living information can be obtained through books, newspapers and magazines, journals, which are all found in libraries. Others involve social media sites when not abused, listening to radio, watching television, healthy conversation with friends and colleagues that are well informed and sincere, Internet as well as interaction with medical personnel. When the grassroots and vulnerable are not provided with information on healthy living, they tend to make wrong decisions in life changing health matters



5. *Non-availability of Reading Materials:* Non-availability of reading materials to the grassroots and vulnerable is a great consequence. This is because lack of libraries and information centres or even mobile library services or public library extension services, which are more avenues for providing services to these groups, make it difficult for even people that are willing and interested in reading to have access to information resources they need at the right time and in right quality and quantity. This consequently leads to poor performance of students in those areas, as well as being misinformed or disinformed by peers and even social media platforms.
6. *Non-Accessibility to Timely Security Information:* Today, the World at large is bedeviled with security challenges requiring everyone to be security conscious. One can only be security conscious if well informed and updated regularly with current security situations within the immediate environment to avoid falling victim of any security threat by being at the right place at the wrong time or wrong place at the right time. The library offers this information through newspapers as well as internet services. While other stakeholders like the print and broadcasting media offer information services too. One can also be informed through social media platforms, which must be verified to avoid misinformation and disinformation, as well as panic provocation.
7. *Inadequacy of Safety Information:* Close to the above consequence is not having adequate safety information in the areas of road safety, safety at home, safety at school, as well as safety at work. When the grassroots and vulnerable do not read to acquaint themselves with safety information and equally do not listen to radio, television, reading labels and equally listening at assembly grounds where safety tips are given to students, they tend to expose themselves to avoidable hazards. A case in point is the hazard of pouring kerosene when lantern or stove is on or pouring fuel into generating set tank when the generator is on, as well as answering calls in the kitchen while cooking with gas. These and many more health hazards have sent many people to their untimely grave, which could have been avoided by providing information services to people through public and community libraries and other enlightenment programmes the librarians can extend to the grassroots and vulnerable.
8. *Inadequate Information On Climate Change:* This has resulted in incessant bush burning, improper disposal of waste, indiscriminate disposal of plastics waste instead of recycling them and not maintaining environmental cleanliness as a result of not being informed of the consequences. Libraries can provide information on climate change and all its resultant effects through its services to the grassroots and vulnerable and avert or curtail the consequences of loss of lives or environmental degradation.

### **Conclusion**

Library week being a period set aside to celebrate libraries, librarians and other library workers' contributions and promote library use and support to effective library service delivery, is a global event that offers the librarians the opportunity to reach out to the public and interact in such a manner to bring library and information services to people instead of waiting for such people to visit the library. The year 2021 theme is apt as it has taken the library and information professionals out of their comfort zones to spread good news about their cherished profession. It is hoped that the effort will yield the desired results of bringing back the users to the library to tap the hidden treasures



found in library and its services, especially for the grassroots and vulnerable and thus transform them for effective decision making and for societal growth and development.

### **Recommendations**

Globally, the benefits of library week right from inception are quite enormous and therefore cannot be over-emphasized. It is an event that libraries all over the world look forward to celebrating, Nigeria inclusive. It is therefore recommended that for the impact of library week to be felt by the grassroots and vulnerable in Nigeria, as a developing country, the following recommendations are necessary:

1. Nigerian library associations like the NLA and all sections and chapters must live up to the expectations of effective library services by volunteering in their communities, states and environments to promote library use and support the extension of library and information services to the grassroots and vulnerable.
2. Lobbying and advocacy for recognition of Library and Information Science profession, library and the role it plays in societal development and transformation should be spearheaded by library associations, institutions and librarians. This will attract government interest in library matters.
3. Librarians should lobby for better funding of libraries in Nigeria. As the major challenge of libraries in Nigeria, especially public libraries is inadequate funding, the clarion call is for librarians and their associations to lobby and advocate for better funding and maintenance of Nigerian public libraries, which are acclaimed as poor man's university. When public and community libraries are adequately taken care of and made functional in our various states and communities, the grassroots and vulnerable will definitely be able to access information with ease and improve their lives and decision making capabilities.
4. Library associations and librarians should engage in book donations to public and community libraries to ensure adequate book collections in the libraries. This will equally help to revive and sustain mobile library services and extension services of Nigerian public libraries.
5. The librarians can attract book donations, library equipment procurement, ICT facilities and volunteer library services to the grassroots and vulnerable. For those in hospitals and correctional homes, books that have therapeutic and reformative effects can be made available to them during library weeks and other programmes.
6. As many public libraries in Nigeria are not functioning effectively, the Nigerian Library Association, its chapters and sections and librarians are encouraged to champion the course of these libraries through lobbying and advocacy to draw the attention of state governments to the need for reviving public libraries in Nigeria.
7. Librarians should see the need to establish community libraries in various communities so as to draw library services to the users and also be responsible for periodic monitoring and supervision of the libraries and their activities to ensure that the purpose of establishing them is achieved. Librarians can also spot out philanthropists and good-spirited individuals in communities that can help financially in establishing community libraries in their communities. Such individuals can volunteer to build libraries or provide space where such community libraries can be established or take off temporarily or donate some library equipment, furniture and information resources.



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