



## DIGITIZATION AND PRESERVATION AS MEANS OF ACCESSING INFORMATION IN NIGERIAN UNIVERSITY LIBRARIES: A CASE STUDY OF BAYERO UNIVERSITY, KANO AND KASHIM IBRAHIM LIBRARY, AHMADU BELLO UNIVERSITY, ZARIA

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### ABSTRACT

*The study examined digitization and its usage by academic libraries to preserve and facilitate access to information sources. Case study method of research was adopted. A total number of 250 questionnaire was used through the administration of questionnaires, one hundred and seventy five (175) questionnaires were properly completed and returned for analysis, this enable the researchers to arrive at the findings and to reach conclusion in the study. The study identified that digitization could be used as means to enhancing access by making available information to present and future users of the library. This was obtained from the data collected where it was shown that digitization make access to information resources easier as recorded in the responses of 113 (64.57%) obtained from the respondents. It was also established that digitization of library resources is highly relevant as recorded in the responses of 147 (84%). From the study only highly demanded books should be digitized in the library as responded by 67 (38.29%) from staff in the library, followed by other textbooks. The benefits of digitization in the library as a means of providing access to the materials in the library and the means of preservation as recorded from the responses of 93(53.14%) was established. The study established that digitization of information resources is relevant to library services as recorded in the responses of 147 (84%). Printed materials could only be designed for the use of one reader while digital materials could be accessed by thousands of readers simultaneously provided the equipment are put in place in the library.*

**Keywords:** Information, Digitization, Preservation, Resources, Environment, Maintenance.

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## 1. INTRODUCTION

Libraries have always struggled against the physical destruction of their collections. Fires, floods, earthquakes, and wars have damaged the holdings of countless libraries holdings, destroying forever most of the recorded history of human civilization. Library materials also fall victim of the slow decay caused by acid content in paper, insect infestation, improper storage or handling, and excessive heat, mildew, humidity. The slow decomposition of library materials is a universal problem, occurring on a massive scale in developing and industrialized countries alike. In 1990 the Association of Research Libraries estimated that in the United States as much as 25% of the materials in research libraries were at risk of serious decomposition. The situation is even worse in developing countries, which typically have much smaller budgets to direct toward the maintenance and preservation of library materials.

According to [Smith \(2007\)](#) the purpose of preserving physical objects that contain information or hold memories is to ensure access to that information, books, manuscripts, maps, photographs, home movies, postcards each object is its own memory palace, waiting to be explored at some unknown time. However, libraries are expected to be identified for whom they preserved and kept ready for use in order to meet that unknown users; needs.

To ensure that library materials remain available to present and future generations' users, according to [Nwachuku \(2008\)](#) libraries must engage in a variety of preservation efforts. These efforts include the conservation of original materials and transfer of information from original materials to more durable formats. Libraries transfer information from some fragile materials to more durable formats. For example, to preserve the information contained in Newspapers, books and other paper-based materials, libraries could reproduce the pages in microfilm or microfiche, miniature transparencies that users can magnify for viewing or printing with special equipment. Microfilm and microfiche significantly increase the longevity of library content. They also enable libraries to store bulky, paper-based documents in much smaller spaces.

[Babwibe \(2007\)](#) expressed that electronic digital information resources have taken over the traditional printed information sources. It is now fashionable among scholars in our universities and research institutes to demand for electronic digital information resource. Therefore libraries have decided to preserve their resources using digital technology. It has been the responsibility of libraries to assemble, organize and preserve the documentation of human activities. It is in line with this that [James \(2001\)](#) identified preservation activities of libraries to be centered on maintaining quality information resources and access to data at all times. Perseveration could increase the chances of library users accessing the information they need at the time they want it.

### 1.1. Concept of Digitization

According to [Conway \(1996\)](#) digitization referred to the conversion of any continuously varying sources of imprint, such as line in a drawing or sound signal in a series of discrete units

represented (in a computer) by binary digits. A piece of information in print or picture or video etc is reproduced in binary code with alpha numeric values to enhance precision and reception.

In the library, digitization is carried out by reproducing certain information resources in digital format. This is done to enhance greater access to the resources and to conserve storage spaces. For example when a voluminous book is digitized the bits is compressed for storage in a relatively small space on a computer drive or related hardware or software materials. Indeed digitization in this period could enhance access to library resources as most of today's library users appreciate more information on electronic formats than the traditional print formats Nwachukwu (2007).

### 1.2. Digitization of Information Resources in the Libraries

Information resources refer to the items or means through which individuals get the information of their choices. In the library there are various means by which the library user could have access to the information. Kaye (1995) categorized the typology of information sources into format, status and location. By format we mean the physical attribute of the materials and this require further categorization into paper based sources, oral or audio sources, electronic sources, textual sources and media sources. Status refers to such sources as personal, formal or informal sources, published/unpublished sources and open/secret or confidential sources. Location means where the information is generated or could be obtained such as internal or external. Whatever is the source of information in a library it must be one which could be used by the users because the major objective of the library is to facilitate use of information.

The materials in the library could also be categorized into two: printed and non-printed sources. The printed source includes such materials as books, serials, bulletins and other related materials. The non-printed sources include machine operated medium such as slides, computer disc, films, micro forms etc. and non-machine operated medium include charts, maps, posters, photographs etc. libraries today provide services online using combination of computer and telecommunication system and they also rely and acquire facilities to capture and store online sources of information.

Oketunji (1998) pointed out that most academic libraries have developed plans to automate their services so as to improved services delivery including preservation and access. But to facilitate the drive towards achieving complete automation of the libraries there is the need to convert existing records into a digital form. The process of automation is slow perhaps due to lack of proper telecommunication links and other related factors. However, with the launch of Nigeria SAT – 1 in space things might improve.

### 1.3. Digitization and Access to Documents in Nigerian Academic Libraries

The objective of any preservation project is to aid future access to the materials preserved. Many print materials held in a library especially older historical manuscripts are deteriorating fast to the extent that they could not be found. This condition cannot be allowed to continue and

library must find a way to curtail it by perhaps preserving the materials. Digital materials could be records of human knowledge created for specific purpose or products of digitization. Digitization helps to create high quality copy of an item, thereby protecting the original by ensuring that the information it contain is preserved and made accessible to intended users. Digitalized materials could perfectly replace the original because it's the same information as the original and can be used for the same purpose in research as the original. Indeed, digitization could reduce many problems associated with the printed materials in our libraries. Such problems as theft and mutilation which are bedeviling Nigerian libraries could be reduced or eliminated completely.

Horseman (2002) identified that the need for digital preservation have been created because of lack of skilled individuals in the libraries to handle it. The number of practitioners equipped with the skills and knowledge to provide adequate preservation for the digital resources is inadequate. Therefore, unless this knowledge gap is filled up, all of the investments in securing digital resources will not provide results in the near future.

There has been much concern and speculation about the issues surrounding digital preservation. Digital preservation, awareness and training are so important because they are: technological, administrative and legislative. For example, Hedstrom and Montgomery (1998) found that most organizations who make use of digitization stated that irreplaceable information would be lost if their digital materials were not properly managed and preserved. Because the technology is more vulnerable than other media, the need for preservation is more urgent and constant.

In fact, in preservation considerations, Meta data is capture, which makes electronic records management a crucial factor of digital preservation. The materials to be digitalized must also be identified as policy so as to conserve resources.

#### 1.4. Information Resources to Digitize

Modern libraries according to Abdulsalami and Achebe (2013) are developed to process and access books and other reading materials, hence the need to preserve the resources through digitization for future use. But the decision to digitalize any material in the library must be based on the physical size of the nature and condition of the source of the material. That is the characteristics of the product to be digitalized. It must also be ascertained that the available means of conversion can bring out result in the project. Above all the product must specify how users could be guided to use it.

Understanding the source of materials which constitute the library's collection is also another important consideration which must be given in any digitization project. For example sources /materials include: project reports, staff publications, working papers, thesis, manuals and handbooks, audio and video, printings and photograph collection, historical documents, songs and musical scores, oral history etc.

Digitization involves the step taken to preserve information resources by converting printed information materials into electronic digital format with a view to making the resources

accessible. This activity is undertaken by acquiring the material to be digitalized, scanning the materials to transcribe it into digital format, and by creating mark up and index to create Metadata. To ensure quality control of this activity, specialist is required to handle the activities and to process the images. But the simplest approach to digitization is through the use of scanners to create images [Abdulsalami and Achebe \(2013\)](#).

Digitization in library is undertaken with a view to preserve and maintains the collection of the library. It has been observed that many items in the collection of the library are deteriorating fast due to heavy usage. Many documents are also missing due to perhaps anti-social behavior of some of the users. Therefore, to ensure that the library fulfill its obligation to the users, preservation through digitization is undertaken. But the issue at stake is how the user will benefit from this laudable action. Perhaps the materials being digitized are not relevant to the users due to selection problems when trying to identify the items to be digitized. Perhaps also the users do not know how to use the digitized information resources due to lack of knowledge on how to operate the computer which is the machine gain reception from the digitized resources.

It is in line with this that a study such as this is undertaken to determine the steps taken to identify the likely items to be digitized and the relevance of the digitized resources to the users. The study will also examine the rate at which the digitalized resources are being used by the users and how library staff in charge of digitization could improve the practice in the library.

### **1.5. Problem Statement**

Information resource has become so numerous and complex to the extent that no library can boast of acquiring everything that is published due to the financial constraint, the librarian could no longer provide enough access to most materials due to constraint. The emergence of information resources in electronic form in the libraries especially, the advent and pervasive dominance of the internet further serve to accelerate emphasis on giving prominence to the needs of the library users since users and academics were generally beginning to adopt very different forms of information seeking behavior. The need to adopt the global electronic access to information as a threat to the very future of the physical library becomes problems to be provided solution to.

The taught to what users want had become both a matter of survival and a question of professional expertise and self-respect. Thus smith (2002) reported that the challenges facing the libraries now, are great and libraries are finding it difficult to keep pace with the challenges. Computerization has been embark upon to ensure access to variety of information sources held electronically and to move with worldwide trends in library and information services.

### **1.6. Other Problems Pose by Electronic Information are:**

1. The growth of information and the diversity of its formats.
2. Equal if not greater, on how to preserve the expending number of increasingly fragile resources to which users demand quick and convenient access.

The challenging aspect of digitizing is the media deterioration and obsolescence in retrieval, technologies which is created in digital form and those converted from paper or other format to digital form which is vulnerable to technological obsolescence.

### 1.7. Research Questions

The study set out to investigate the following research questions

1. How can preservation enhance access to information in the library?
2. What are the information resources ideal for digitization?
3. What are the benefits of digital information sources?
4. What is the relevance of digital information sources in libraries?
5. How can users access the digitalized information sources in the library?

### 1.8. Objective of the Study

The objective of the study: to determine how preservation enhance access to information in the library, to determine the information sources ideal for digitization, to find out the benefit of digital information sources, to determine the relevance of digital information sources in the libraries and to find how users access the digitalized information sources in the library.

### 1.9. Methodology Adopted for the Study

Questionnaire was the instruments used, this enable the investigators to collect one hundred and seventy five (175) sample size and varied opinion about the subject under investigation in the library. The method adopted for analysis and presentation was descriptive, in form of frequency distribution and percentages. Tables were used to report the cases observed from the data collected. The research method adopted for the study is the case study. This method allows the subject under investigation to be studied. The case study gives first hand and accurate data of cases under investigation, even though it cannot be generalize over other similar institution even where they have similar conditions and problems. [Osuala \(2005\)](#) observed that case study observe individual units, a community, a family group, or events or organizations etc.

### 1.10. Concept of Digitization

Digitization in libraries is becoming prominent now than ever before. This has been made possible by the increasing awareness of the potentials of digital resources in libraries and information centers in Nigeria. Many academic libraries in Nigeria have found it necessary to digitize their resources as means to preserving their collection and for enhancing access to variety of information sources. It's now fashionable among Nigeria academic libraries to digitize their resources and put them on the internet for easy access.

[Chiooming \(2000\)](#) identified that with the availability of varied digital materials on the internet, more libraries are jumping on the band wagon with the aspiration to becoming digital libraries. This means that in the near future the number of conventional libraries will reduce to a

few. Otim (2000) maintain that a new period has come the age of digitization, the age of instant communication, and the world of global village. There is a new sense—a magic in the air at least for those aliens from the old industrial past, making contact with new cyber world. Indeed the world has changed from a world dependent on information technology and ability to process and communicate information fast.

Digitization is the process of creating digital files by scanning or other means of converting analogue materials. The resulting digital copy or digital surrogate would then be classed as digital materials and can also be subjected to the same broad challenges to material to be preserve by the library and be accessed by the users. Digitization comprise the processes of making collection of materials online. This involves the acquisition of the right materials based on the policy of the library, scanning and transcribing the materials, creating mark up and index to create metadata. It also involves ensuring quality by employing subject specialist to handle the process. The digitization also involves process of ensuring quality images, upholding the web to preserve and maintain the archival media and online collection. Digitization enhances access and help to preserve the materials for future use. By digitizing materials information can be made accessible and available for various uses such as study and research.

#### **1.11. Nature and Type of Information Resources to be digitalized in Libraries**

There are many information resources in the library. Such materials are supposed to be preserved to make them accessible and available for future use. However, modern library materials are adding digital resources to their collection to be relevant in this technological age.

Afolabi (2000) identified that information resources have become so numerous and complex to the extent that no library can boast of acquiring everything that is published due to the financial constraint. Therefore, libraries are now concentrating their efforts on how to provide access to materials from both within the library and those by other libraries through cooperation.

Meer (1997) identified that a popular theme in current library literature is the electronic academic library, characteristics of which include locally loaded databases, graphics, imaging and multimedia, networking and graphical user interface (GUIs). Additional trends in the academic libraries also include a move towards client/server computing and the collaboration of libraries with other technology units on campus. A few years ago local online catalogue seemed to be a minor miracle to library users; but now, hundreds of Online Public Access Catalogs (OPACs) are available for worldwide access via the internet. The explosion of network information has also contributed to an age of vast transformation in which librarianship as a profession is “caught in the swiftest and most encompassing changes—faster and more drastic than any other”. At the same time that these transformations are taking place within libraries, other problems are coming up. Such problems include preservation and access to the materials which are also changing.

The researchers opine that online catalogue has become a sine qua non for most academic libraries: the old manual catalogue was outdated, and remained acceptable only to a dying breed of older users whose research habits had been formed in an earlier age. A wide range of network

electronic resources, a comprehensive local internet; document delivery to the reader's desktop; the formalization of web-based resources; the population of institutional virtual environments with information tailored to the needs of students teachers and even the digitization of materials already held locally, all of these development began to come on stream during the closing decades of the millennium as libraries strove to keep their users happy in a world where the commercial search engines were becoming the most universal choice of first resort. A new cadre of academic librarians too, was showing themselves a whole lot more agile at keeping pace with the Google generation staying in touch with what users want, had become both a matter of survival and a question of professional expertise and self-respect. Indeed as [Smith \(2002\)](#) reported that the challenge facing libraries now are great and libraries are finding it difficult to keep pace with the challenges.

### 1.12. Digitization of Information Resources in Nigeria Academic Libraries

The emergence of Information Communication Technology (ICT) in Nigerian libraries is changing the pattern work of eliminating the manual system of processing and retrieving information in the libraries. According to [Abdulsalami Lucky and Achebe \(2012\)](#) libraries in general are set up to fulfill certain functions. Academic libraries in particular are set up to support students and their lecturers in teaching, learning and research. To entirely do these, libraries require the right kind of materials. However, the right material may not be obtained directly by any one due to economic constraint. Therefore the libraries are being forced to make do with what they have in their collection. To maintain the collection in the library, managers need to take measures which will help preserve the collection of the library to ensure access and future use.

[Abolaji \(2000\)](#) identified the significant of the wide spread computerization of libraries in Nigeria. He reported that computerization has been embarked upon to ensure access to variety of information resources held electronically and to move with worldwide trends in library and information services. Indeed, there are more information resources on digital formats than ever before and libraries must embrace technology to be able to tap from the rich content of the materials.

[Rayn \(2000\)](#) maintained that with the proliferation of telecommunication network and information technologies academic libraries are being forced to evolve new practices fundamentally to retain their traditional role of gateways and stewards scholarship and knowledge. Similarly, [Ojedokun \(2000\)](#) remarked that the effect of digitization in Nigerian academic libraries brought improvement in the services they provide. Perhaps digitization reduces the cost of access to information and introduced variety to information users.

### 1.13. Digitization and Access to Information in Academic Libraries

As we have moved into the twenty-first century, libraries as primary stewards of information resources for education and research are facing a lot of challenges especially as they have to



collect, describe, and serve materials to the users. A primary challenge is posed by the growth of information and the diversity of its formats. A second challenge of equal, if not greater, concern is how to preserve the expanding number of increasingly fragile resources to which users demand quick and convenient access. Twentieth-century recording media, from film to sound to digital file, hold greater amounts of information than the printed resources libraries have been designed to collect and serve. These new media make more information readily accessible, but they pose serious challenges to its long-term use (Abdulsalami Lucky and Achebe, 2012)

Nwachuku (2008) noted that, ways in which we have defined the problems of preservation in the print-on-paper domain and the solutions we have designed to address those problems are largely irrelevant to other media and formats. Print-preservation strategies are based on fixing information to stable medium and on having ownership as well as physical possession of the materials. Other media like moving images, recorded sound digital simulations, and so forth are simply not amenable to these strategies. Libraries and archive are grappling with these complexities in a rapidly changing environment characterized by new distribution mechanism, expanding copyright monopolies, ever-greater technology, dependencies and changing user expectations. It is therefore, not surprising that library preservation programs are not keeping pace with these changes and may even be losing ground.

To gain a better understanding of how this situation has come about and what can be done to preserve it, Council on Library and Information Resources (2003) organized conference with the purpose of examining the key factors shaping the information environment in which libraries operate and how these factors will affect stewardship of the cultural and intellectual resources vital to education and research. Scholars, library Directors, Universities Administrators, Publishers, Collectors and Representatives from the legal and preservation communities came together to explore the challenges posed by the shifting information landscape and to propose directions that can be taken by all in research and education who have an interest in the well-being of research and cultural heritage collection. The reason why libraries choose to digitize their resources is to enhance access especially as users could have access to digitized information resources without having to be physically present. Nwachuku (2008) noted that the integration of digitization into library operations could strengthen the base of local information and could also serve as gateway to worldwide academic information extending beyond the resources physically present in the library. Abdulsalami Lucky and Achebe (2012) highlighted the benefits of digitization to include among others ability to be accessed by many persons at the same time and users can find what they want easier than the printed system. Others are enhanced benefit such as sound; image and the ability to download on any medium of choice and to enhance the use in the library.

#### 1.14. Preservation of Digital Materials in Libraries

Digitization and digital resources in libraries has led to the need of digitization and digital preservation. According to Digital Preservation Coalition Committee (2002) preservation of

digital materials refer to series of activities necessary to ensure continued access as long as possible to digital resources.

Duff and Fox (2002) noted that preservation considerations should be taken into cognizance, the moment a digital object is created to ensure that the required metadata is captured. Irreplaceable information could be lost if the proper steps to preserve materials have not been taken at the right time. Digital information resources should also be managed properly to ensure that the materials are properly managed and preserved. Conway (1996) argued that there is the need to look at digital preservation in a more encompassing way which includes technology, stakeholders, and policy issues. The obvious solution to digital preservation problems is on level of competency of the institutions which handle digital records. Institutions require expert in digital preservation to handle the preservation needs of their organizations. Many institutions propose training existing staff through local training, workshops, or independent study. It is in line with this that Horseman (2002) and Boccaccio (2004) both articulated the necessity of continuous training to keep up with the changing information landscape. But Abdulsalami Lucky and Achebe (2012) in their study emphasized on the need to study the situation with a view to determine the options available for libraries.

## 2. RESULTS

Two hundred and fifty (250) questionnaires were distributed, one hundred and seventy-five (175) were returned dully completed by the respondents. This forms the working population as indicated in table 1 below.

Table-1. Response Rate

Respondent	No. of Questionnaire Distributed	No. of Questionnaire Collected	Percentage (%)
Bayero University Kano	50	36	20.57
Ahmadu Bello University, Zaria.	200	139	79.43
Total	250	175	100

Table 1 indicated the total questionnaires distributed and collected from both staff and students. The sample size according to the response rate was one hundred and seventy five (175).

### 2.1. Preservation as Means to Access Library Collections

The researchers from a total number of 175 respondents tried to find out the preservation means that can assist to enhance access to Library collection, the responses from the subjects are recorded in table 2 below.

**Table-2.** How preservation enhances access to the collection of the library

Preservation as means to access library to the collection	Frequency	%
High access	159	90.86
Moderate access	16	9.14
Low access	-	-
No access	-	-
Total	175	100

Table 2 above highlight how preservation could enhance access to the library collection. 159 (90.86%) express that preservation of the library collections will enhance access to library collections while 16 (9.14%) express moderate access. Low access and No access has no response.

## 2.2. Information Resources Ideal for Digitization

From the total numbers of 175 respondents the researchers wants the respondents to identify the information resources ideal for digitization. Below table 3 shows the types of information resources ideal for digitization.

**Table-3.** Types of information resources ideal for digitization

Types of resources	Frequency	%
Thesis	57	32.57
Dissertation	51	29.14
Highly demand books	67	38.29
Rare books	-	-
Total	175	100

Table 3 above indicate the types of information resources ideal for digitization. 67(38.29%) express that only highly demanded books should be digitize to avoid heavily use and competition. 57( 32.57%) posit that thesis should be digitize, thesis research focus on our day to today society while 51(29.14%) supported dissertation because of its focus to our environmental value. Rare books have no response.

## 2.3. Benefit of Digitization of the Library Resources

This was to find out the benefit of digitizing Library Resources, out of the 175 respondents from two University sampled. Table 4 below recorded the response rate.

**Table-4.** Benefit of digitization of the library resources

Benefit of digitization	Frequency	%
Highly beneficial	93	53.14
Beneficial	82	46.86
Not beneficial	-	-
Total	175	100

Table 4 express the benefit of digitization of the library resources. 93(53.14%) opine that digitization of the library resources will be highly beneficial, 82(47.86%) agree to the assertion while none of the respondents disagree.

#### 2.4. Relevance of Digitization of Library Services

The researchers tried to find out the relevance of digitization of the library services. From the sample population of 175 various responses were obtained as indicated in table 5 below.

Table-5. Relevance of digitization in the library services

Relevance of digitization	Frequency	%
Highly relevant	147	84
Relevant	24	13.71
Not relevant	4	2.29
Total	175	100

In table 5 the respondents expressed that digitization of the library services is highly recommendable and relevant 147(84%) express this opinion, 24(13.71%) agree that digitization of the library services is relevant while only negligible percentage 4(2.29%) posits that it is not relevant, this could be due to some constraint like the technologically know how, electricity problems witness in the country (Nigeria).

#### 2.5. Access to Digital Information Resources among Library Users

From the total of 175 respondents the researcher tried to find out the accessibility of the respondents to digital information resources from the university library, the responses obtained are indicated in table 6 below.

Table-6. Access to digital information resources among library users

Method of access	Frequency	%
Online/ computer access	113	64.57
Library catalogue	31	17.71
Borrowing in the library	16	9.14
Information obtained from reference at the end of article	5	2.86
Information obtained from colleague	10	5.71
Total	175	100

Table 6 express the mode of access to digital information resources among library users. 113(64.57%) opine that online/ computer access is the most common mode used. 31(17.71%) agree that library catalogue is used but not compare to online. 16(9.14%) prefer to borrow physical library resources, 10(5.71%) obtained information they needed from colleague while 5(2.86%) obtained information from articles/journals in the library.

### 3. DISCUSSION

The study identified that digitization could be used as a means of enhancing access by making available information to the present and future users of the library. This was obtained from data collected, in the study it was shown that digitization makes access to information resources easy as recorded in the responses of 175 respondents. It was also identified that digitization of library resources is highly relevant this was recorded in the response of 147 (84%) of the respondents.

The study established that highly demanded books should be digitized in the library, this was also recorded in the response of 67 (38.29%) by the staff and students using the library. It was also established that the benefit of digitization of the library are means of providing access to the materials of the library and also are means to preservation as recorded from the response of 93 (53.14%). The study established that digitized information resources are highly relevant to library services as recorded in the response of 147 (84%) of the respondents and the relevance of digitization could be related to the fact that it add to the resources in the library. The more resources a library has the more it can respond to user needs.

### 4. CONCLUSION

In line with the finding in the study the researchers wish to conclude that digitization of information resources in libraries is an important aspect of resource management in the libraries. Therefore, every library are expected to invest on digitization project and at the same manner investing on other resources such as books, journals, multimedia etc. Moreover, digital information sources have made their marks as potential information sources of the present information environment in Nigerian academic libraries. Their potential has transcended the boundaries of time and place as with the printed materials. While printed material could be designed for the use of one reader but digital image could be accessed by thousands of readers simultaneously provided the equipment to facilitate it, is put in place in the library.

However, digitization in Nigeria libraries is slow due to power failure and technical knowhow of the librarians. Digital project can only succeed in an environment with functional telecommunication infrastructures and this remain a challenge to Nigerian information sector. Funding of the university library is another challenges in Nigerian universities. Without adequate provision of funds, digital project cannot be possible because the equipment used in digitization are expensive. Therefore, any library which cannot afford the equipment cannot run digital project.

In Nigeria where power is not always constant. Digital project cannot work effectively due to inadequate supply of electricity, digitization of library resources and services becomes difficult, digital images can only be viewed with the aid of an electronic device which required electricity power to function.

The use of digital information resources and services could make Nigerian university libraries comparable in terms of service provision and the use of technology which provide access

to users from all part of the world. Many information resources are being produced in digital format and to gain reception to these items require the library to embrace digitization.

## 5. RECOMMENDATIONS

The study wish to recommend the following:

Items to be digitized should be items which have some usefulness in the future, therefore library managers need to identify those items to reduce waste of resources.

To enhance digitization, the library need to increase its budget to purchase technology equipment.

The library management should encourage their staff to obtain requisite knowledge in digitization by organizing seminars, workshops, and in-service training. Finally, the library users should also be oriented on how to operate and use digital information resources so that they could derive maximum benefits from the system.

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