

**ACQUISITION, VISIBILITY, ACCESSIBILITY AND USE OF
PERIODICALS AMONG LIBRARY AND INFORMATION SCIENCE
POSTGRADUATE STUDENTS IN FEDERAL UNIVERSITY LIBRARIES
IN NIGERIA**

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DECLARATION

I, Ishioma Nwanapayi Azonobi, declare that this is an original research work carried out by me in the Department of Library and Information Science, Faculty of Education, Delta State University, Abraka

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CERTIFICATION

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DEDICATION

This research work is dedicated to God Almighty for His invaluable love for me and to my lovely husband, Mr. Augustine Ayo Iwegbue.

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TABLE OF CONTENTS

TITLE PAGE	i
DECLARATION	ii
CERTIFICATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT	xii
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	12
1.3 Objectives of the Study	13
1.4 Research Questions	14
1.5 Hypotheses	15
1.6 Significance of the Study	15
1.7 Scope and Delimitation of the Study	16
1.8 Operational Definition of Terms	17
CHAPTER TWO: REVIEW OF RELATED LITERATURE	18
2.1 Theoretical Framework	18
2.2 Conceptual Framework	21
2.3 Methods of Acquisition of Periodicals in Libraries.	25
2.4 Visibility of Periodicals in Libraries.	32

2.5 Accessibility of Periodicals in Libraries.	52
2.6 Use of Periodicals by Postgraduate Students in Libraries.	59
2.7 Acquisition, Visibility, Accessibility and Use of Periodicals in Libraries	64
2.8 Appraisal of the Reviewed Literature	67
CHAPTER THREE: MATERIALS AND METHODS	68
3.1 Research Design	68
3.2 Population of the Study	69
3.3 Sample and Sampling Technique	70
3.4 Research Instrument	71
3.5 Validity of the Research Instrument	72
3.6 Reliability of the Research Instrument.	72
3.7 Method of Data Collection.	73
3.8 Method of Data Analysis.	73
CHAPTER FOUR: PRESENTATION OF RESULTS AND DISCUSSION	74
4.1 Questionnaire Response Rate	74
4.2 Answering of the Research Questions	76
4.3 Testing of the Research Hypotheses	85
4.4 Discussion of the Findings	87
CHAPTER FIVE: SUMMARY, CONCLUSION AND	

RECOMMENDATIONS	93
5.1 Summary of the Study	93
5.2 Conclusion	94
5.3 Recommendations	95
5.4 Contributions to Knowledge	96
5.5 Suggestion for Further Studies	96
REFERENCES	98
APPENDIXES	112

LIST OF TABLES

Table 1: Examples of Institutional Repositories in Nigeria	42
Table 2: Population of the Study	42
Table 3: Questionnaire Response Rate	74
Table 4: Methods of Acquisition of periodicals	75
Table 5: Visibility of periodicals	78
Table 6: Access to periodicals	79
Table 7: Postgraduate Students' Usage Patterns of Periodicals	81
Table 7.1: Frequency of Using Periodicals	82
Table 7.2: Purpose for Using Periodicals	83
Table 8: Relationship between visibility and use of periodicals	84
Table 9: Relationship between accessibility and use of periodicals	85
Table 10: Relationship among visibility, accessibility and use of periodicals among postgraduate students	85
Table 11: ANOVA Summary Table of Relationship among visibility, accessibility and use of periodicals among postgraduate students	86
Table 4.10: Coefficient Summary Table of Relationship among visibility, accessibility and use of periodicals among postgraduate students	86

LIST OF FIGURES

Figure 2.1. Structure of Utilisation Research	20
Fig. 2.2: Conceptual Framework on the use of Periodicals	22
Figure. 2.3 – Screen image of the webpage of the digital repository with DSpace software	43
Figure. 2.4: Screen Image of Achecker Tool	56
Figure 2.5 - Ulrich's Periodicals Directory	57
Figure 2.6: Sci-Hub Tool	63

Abstract

The study investigated acquisition, visibility, accessibility and use of periodicals among Library and Information Science postgraduate students in federal university libraries in Nigeria. The descriptive survey design was adopted. The population of the study was 411 respondents drawn from seven Federal University libraries in Nigeria. The sample for the study was 411 and total enumeration sampling technique was used because no sampling was done due to the number of postgraduate students involved. Research questions were raised and answered with three hypotheses formulated which were also tested. The instrument used for data collection was the questionnaire and copies of them were collected and analysed using frequency, mean and standard deviation to answer the research questions. Pearson's Product Moment Correlation Coefficient (PPMC) and multiple regression were used to test the hypotheses at 0.05 level of significance. The study found that serials librarians adopted purchase, subscription and patron-driven as methods of periodicals acquisition in federal university libraries in Nigeria. It was discovered that the tools viable for the visibility of periodicals are: institutional repository, self-archiving, catalogue and periodical stand and postgraduate students' access periodicals by using subject, title and keywords. The study also revealed that postgraduate students use periodicals by searching, downloading and locating them from multiple sources and retrieve them to meet their information needs. There was a significant relationship between visibility and use of periodicals, there was a significant relationship between accessibility and use of periodicals and a significant relationship among visibility, accessibility and use of periodicals among Library and Information Science postgraduate students. The study concluded that visibility and accessibility influenced the use of periodicals among Library and Information Science postgraduate students in federal university libraries in Nigeria. The study's contribution to knowledge is that acquisition, visibility and accessibility were significant for the use of periodicals in federal university libraries in Nigeria. The study recommended that: Serials librarians should maintain and sustain the methods of acquisition adopted to enhance usage of periodicals, more attention should be paid in the areas of visibility and accessibility tools; and efforts should be made to augment print and electronic periodicals for use by postgraduate students.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The advancement of knowledge in the field of education has influenced and restructured students' tactics in using periodicals in the university library. This has put a higher priority on librarians on the successful organisation of increasingly diverse collections to satisfy their users (postgraduate students) as it guarantees active participation in the librarian-user service delivery process. According to Ashikuzzaman (2018), every educational institution requires a library containing various information resources that involve several kinds of periodicals. This is because, a university library is the resource bank of any institution and its goal is to provide effective services for users to enhance their knowledge with up-to-date information which is important for teaching-learning and extra-curricular activities in the university.

Periodicals, as defined by Bajracharya (2015), refers to a publication with a distinctive title, which appears at stated or regular intervals, without a prior decision as to when the last issue shall appear. According to Sivadas (2012), periodicals are serials characterised by the regularity of publication and frequency of issues that are generally paid for in advance. Periodicals are the conveyance of current trends in all walks of life. This has made access to their contents more direct, convenient and timely which made postgraduate students cling to them to unravel their greatest source of anxiety and uncertainty. Due to increased activity and as a medium of exchange of scientific information, periodicals have gained great importance in university libraries. They are published scholarly and theoretical research articles that have high impact and are among the most vital sources of information in the library as they carry the latest information in all fields of knowledge. This implies that, collections of periodicals are very important

for any academic and research libraries as they are primary sources of information and awareness and are invariably more up-to-date and usually intended for a wider audience.

As noted in Kaliasammal and Jebakumar's study (2005, as cited in Akporhonor & Azonobi, 2015), among the information resources in university libraries, periodicals collection occupy a predominant role and have an ever-lasting value. Hence, it is not easy to lend out documents from these collections. Therefore, almost all periodical literature must be acquired for the betterment of the university community. The importance of periodicals has forced postgraduate students to learn how to access and use a wide variety of resources in the library. Periodicals are vital sources of information and as such are meant to be used, read and studied. This requires that periodicals must be acquired, organised and made visible and accessible in various formats to users especially postgraduate students.

According to Baburao (2011), the organisation of periodicals demands not only professional knowledge and experience, dedication and adaptability but also a deep insight and acumen to understand the sequence of periodicals and courage to deal with their distinctiveness. Librarians have a professional duty to ensure that periodicals within their collections are maintained in a condition appropriate for their use and their intrinsic value (Shameenda, 2011). This does not mean that all items must be, or should be displayed indefinitely.

Periodicals constitute an important source of information in university libraries in Nigeria. Their usefulness is found in the current information they carry. The information these vital sources carry, educate and entertain the readers and keep them abreast or informed about what happens in the society around them. The creamy or vital

information, which is on a regular basis, makes them one of the most important and crucial sources of information (Abalaka, Yahaya & Okikiri, 2014). Periodicals and serials can be used interchangeably and they consist of print and electronic formats (Njeze, 2012).

At the national or institutional levels, necessary financial resources are not normally available to enable librarians acquire all periodicals to be widely used by students. Librarians must determine policy for the visibility and accessibility of their collections as appropriate to the aims and objectives of their institutions, the needs of users and the value of the individual items (Shameenda, 2011). Therefore, knowledge of the use of periodicals is essential for all librarians who are concerned with the acquisition of periodicals.

Use of periodicals simply means the exploitative/interactive activities performed by a user. Someone who uses something to achieve his/her aim is a user. In the same vein, those who make use of periodicals for scholarly research are periodical users (postgraduate students). Also those who enter the library or surf the library website and find periodicals useful are library users. Barman (2020) defined user “as a person who is actively seeking access to the information available in the library” (p 1). Use of periodicals is not a new ideology in university libraries, but efforts are being made by librarians to acquire periodicals that will translate to qualitative research by users in their various institution. Kanwar Library (2019) avowed that, periodicals acquired should be effectively and ethically obtained at a reasonable and available cost, when needed, to reflect the needs of the university curriculum. It is also in this regard that the usefulness of periodicals is very essential for students to communicate with their counterparts at

large. Periodicals are used by postgraduate students to conduct research, to pursue individual interests as well as support their claims on concerned issues. The use of resources especially periodicals, according to Magoi (2014), could be a result of information seeking, browsing or discovery of new or existing phenomena. Bamidele, Omeluzor and Amadi (2013) believed that information resources (periodicals) accessed by users, especially postgraduate students, greatly depend on their information needs.

Thus, Zhang (2013) highlighted some of the reasons students select and use periodical sources to include: the quality and characteristics of the content of a source: is the content of a source truthful or correct? Is it easy to understand and is it up-to-date? The characteristics of the source itself; is the source available or easy to access? The trustworthiness of the source; is the source integral in terms of motivation to be truthful? The usability of the source; is the source easy to use? The similarity of the source; is a source similar to the user in terms of interest? The scope of the source; is source information specific or includes many other topics? The user's emotional reaction to the source; the selection of the source is dependent on the emotional reactions of the user and social norms: whether the use of a source conforms to generally accepted norms.

According to Khan (2014), students cannot conduct research only through books; they consult periodicals for up-to-date knowledge. However, it is convenient for students to consult required periodicals from the library or online because it does not only save their time, but increases the necessity for knowledge sharing. Alade, Iyoro and Amusa (2014) studied library use characteristics of students in Nigeria University of Science and Technology and observed that the respondents never used information resources in the library. In other words, they visited the libraries for other purposes. This may be as a

result of the inaccessibility of library resources. Ntui and Udah (2015) conducted a study on the accessibility and utilisation of library resources and observed that the respondents cannot use quality information resources due to their inability to access them in the library. There are quite a number of factors that could influence postgraduate students' use of periodicals in the library, some of which are acquisition, visibility and accessibility.

Acquisition, according to Nisha (2011), is the first step in collection development and the major component of acquisition process is acquiring, checking-in, claiming, payment and fund accounting. It involves purchasing, leasing or otherwise obtaining legal and ethical access to information resources. He further noted that, the acquisition of periodicals requires a lot of financial sources. Observably, Sivadas (2012) averred that, "acquisition process comes immediately after the formulation of collection development statements and the adoption of selection procedures". (p. 23) Therefore, acquisition of periodicals demands a more critically informed selection of choices and should be carefully evaluated in terms of their intrinsic values, intellectual level and appropriateness to their users.

Hence, Akinbode and Nwalo (2017) posited that, acquisition entails selection, deselection, and subscription; an organisation which involves processing and display of information resources on racks for users; and maintenance which includes updating, filling the gap, preservation, binding of back issues and repair of damaged information resources. It is also referred to as the process of identifying and verifying the existence of items as needed. Organising such a large number of periodicals requires a definite system that can ensure proper visibility and accessibility to users. This means that in

ensuring that the information needs of users are met, there is the need to acquire prominent periodicals undermining the cost involved since acquisition is besieged with some constraints such as budgetary and inadequate space.

Regrettably, Akela (2019) observed that, a significant amount of acquisition budget of a typical university library is spent on subscription to scholarly journals over the years, and the average subscription rate a library pays for such a journal has accrued dramatically. In a study on serials and acquisition problems in Nigerian federal university libraries by Anunobi, Nwakwuo and Ezejiofor (2010), the acquisition of periodicals is besieged with problems related to cost of periodicals, selection tools, nature of periodicals and subscription decision. Thus, the choice of acquisition of periodicals depends on the university policy. In line with the University of Bath (2018), a proportion of the library budget is allocated for the acquisition of periodicals. It involves activities such as the selection of titles, pre-order checking, preparation of final list for order and other activities such as verification of receipt, checking on the materials, claiming and renewal of subscription as well as cancellation of the order.

As averred by Ward (2015), there is an urgent need to establish more holistic and iterative approaches to manage budgetary constraints while ensuring that collections are "responsive" and committed to the university's research and curricular requirements and needs which will help in effective collections development. In achieving this, Okpokwasili and Blakes (2014) noted that, librarians should take cognisance of users' active participation in the acquisition process to balance periodicals acquired with the university curriculum. To explain this point, it is believed that policies, plans, and strategies are fundamental to progress and collection development of a library, yet, from

budgetary allocation, the problem with acquisition of periodicals lies with the inconsistency in their titles and several methods of acquisition adopted by the university library to enhance quality acquisition of periodicals in the library. Most importantly, it is ripe for libraries to adopt a patron-driven acquisition method to make periodicals visible and accessible to postgraduate students for quality research.

Davidson's study (1969, as cited in Dahiru & Temboge, 2011) emphasised on the importance of periodicals collection and stipulated methods on acquisition policy, how to keep periodical records and display them for visibility and accessibility to users. Visibility, as a variable in this research, simply means the degree to which something is seen by a wider audience. Also, it is the manner at which periodicals can draw the attention of users to the library without extra effort. Ma and Romer (2014) defined visibility as the creation of visible traces to periodicals that are either acquired by subscription or donation. As noted by Iram and Hakim (2018), it is a ground-breaking process that allows libraries to bring their resources to the open to enable access and usage. It is a snapshot of the holdings of the periodical section within a geographical spread depending on the university library's financial position. The role of librarians appears to be changing steadily in an academic environment as they become more active in quality collaboration and boundary spanner in the face of technological advancement to ensure effective visibility of periodicals to students (Ahmad & Panda, 2016).

The successful use of periodicals depends on their visibility level. The visibility of periodicals amongst researchers [postgraduate students] and policymakers is crucial to increasing the possibilities of getting more funds for periodicals acquisition thereby, leading to proper usage (Singh, Shah & Gul, 2014). Visibility seeks to attract the

attention of the university user community who are already aware of their existence and can access, read and use them. However, Ebrahim (2016) affirmed that, visibility broadly facilitates and enables librarians to identify, collect, organise, analyse, visualise and publicise the intellectual output of the university. This is because, knowledge is power and universal access to information is a hallmark of freedom in a library. Periodicals, as asserted by Cabonero and Dolendo (2013), are useless when they cannot be visible and accessed by users. This infers that good visibility portrays good librarianship.

However, visibility is often understood to play a significant role in the use of periodicals. Robust visibility means not only just up-to-the-minute access but, should be available to the appropriate users, no matter where they are or how they are trying to access them (Serenic Software, 2019). Users of university libraries need access to periodicals, to complement their research activities. Anunobi, Nwakwuo and Ezejiofor (2010) noted that, bibliographic instability could hinder visibility and accessibility which are important factors of acquisition. The visibility of periodicals in university libraries would, therefore, improve their accessibility which is the bedrock for usage motivation necessary for individual accomplishment.

Mullen (2008) averred that, librarians can be proactive in their role by disseminating current information on all citation analysis tools and metrics, as well as offering approaches to increase the visibility of periodicals contained in the library. The greatest challenge of visibility, according to Gani (2014), is the ability of libraries to manage these periodicals and make them visible and accessible to the universal scholarly community. This statement implies that, university libraries mostly in Nigeria, have failed in the adoption of some critical tools viable for the visibility of periodicals such as

functional institutional repositories, social networking tools or collaborative initiatives (consortial search engine).

Another variable that could influence the use of periodicals in a university library is accessibility. Accessibility is explored in many studies on collection development. Ntui and Uдах (2015) regards accessibility to mean the ease of locating and retrieving a piece of information from the storage medium. It involves the extent to which a periodical eliminates barriers and permits the user to demonstrate his/her knowledge of the content (Lisney, Bowen, Hearn & Zedda, 2013). Therefore, Ugbagir (2016) noted that “ to create easy accessibility of library resources (periodicals) to library users in universities, National Universities Commission of Nigeria established rules and regulations that libraries should follow to decentralise university resources and sitting capacity” (p. 40).

Accessibility, according to Fange and Iwarsson (2018), is the ability to access and benefit from periodicals acquired by universities through the library. It is created to achieve specific goals with efficiency, effectiveness, and satisfaction in a specific context of use. Bathe (2018) defined efficiency as “a level of performance that describes using the least amount of input to achieve the highest amount of output” (p. 1). It is a measurable idea that may be determined using the quantitative relation of useful output to total input. This means that efficiency has to deal with organising, managing and providing basic access to periodicals in the library collection. It minimises the waste of resources like physical materials, energy, and time whereas accomplishing the required output which is an effective use of periodicals. Effectiveness, according to Harper (2011), is "the capability of producing the desired result or the ability to produce the

desired output” (p. 2). It is also often understood as an intended or expected outcome, or a vivid impression and a veritable manual for stock-building, relating theory to practice, built on how people choose and access periodicals for desired result (IPA report, 2018). Providing access to periodicals is consistent with the library’s professional advocacy. This statement infers that, access to periodicals is made possible and easier for users through the use of various search and download tools because they serve as indexes and guides to periodicals collection. “The more accessible periodicals are, the more likely they will be used” (p. 2) (Eiriemiokhale & Ibeun 2017).

According to Bello (2011), “users access information resources through the use of the library catalogue and Online Public Access Catalogue (OPAC)” (p. 18). This infers that, access to periodicals could be in the form of search, locate, download, retrieval, and reading periodicals within and outside the library. Therefore, the use of tools such as the Sci-Hub, search engine, catalogue, union catalogues and library Genesis enhances access and helps users to quickly obtain particular periodicals for use. Accessibility and use of periodicals are key factors in the provision of quality services in any type of library. Rao and Reddy (2018) stated that university libraries are always committed to providing access to information resources in supporting research and university curriculum. Nevertheless, studies have revealed that there seems to be a need to improve visibility and accessibility of periodicals in libraries as they have great influence on the use of periodicals because users are unable to find out what has been acquired by their libraries.

Okorie and Akanwa (2018) reported that, despite the emphasis placed on the use of periodicals in university libraries, there is a decline in their usage among postgraduate students. This view correlates with the one by Abubakar and Adetimirin (2017) that

postgraduate students' use of periodicals in Nigeria is on the downside. Nutsupkui and Owusu-Ansah (2017) studied how frequent faculty and students used serials in an African university library and observed that both faculty and graduate students were, relatively, aware of the serials (periodical) collection in the library. However, despite this awareness, they used serials, relatively, less frequently. Similarly, Adeleke and Nwalo (2017) in a study, found that students make low use of periodicals in spite of their availability because they (students) are not aware of the various channels through which information can be accessed; they also do not know the sources of this information and therefore cannot locate and retrieve them from their libraries. Chimah, Nwokocha and Ocheruobia (2014) reported that “there is a decline in the usage of periodicals by postgraduate students in university libraries in Nigeria from 65(37.6%) in 2005 to 18(9.3%) in 2012. In 2006, usage dropped to 58(33.7%). However, in 2007, usage increased rapidly to 68(36.8%) but later dropped drastically” (p. 10).

Also, records from some of the serials sections visited, showed a continuous decline in usage from a higher 40(29.5%) in 2015 to a lower 5(6.3%) in 2018. This could be attributed to the poor visibility and inaccessibility of periodicals which might be a result of inadequate tools put in place and the financial status of the library to acquire scholarly publications that will enable usage. This brings to focus, the acquisition, visibility, accessibility, and use of periodicals among postgraduate students in federal university libraries in Nigeria.

1.2 Statement of the Problem

The use of periodicals among Library and Information Science postgraduate students have become of paramount important for qualitative research and up-to-date

knowledge in university libraries. Periodicals are widely recognised information paths to students, academia and researchers. Hence, they are acquired by libraries in satisfying the insatiable needs of their users, especially postgraduate students. In spite of the numerous benefits associated with the use of periodicals, most students restrain themselves from using them due to their inadequate knowledge to navigate the library, use the catalogues (both online public access catalogue) and search the available databases. As a result, periodicals that are the predominant carriers of up-to-date information cannot be utilised with ease and convenience. It is pathetic to note that, despite the huge efforts and resources spent in the acquisition of these periodicals, there are no viable tools put in place for proper visibility and accessibility of these periodicals. The researcher's preliminary observation and personal experience showed that subject-based periodicals are obscured and inaccessible to students to conduct quality research.

Reviewed literature also showed that university libraries in developing countries are faced with the problem of poor visibility and inaccessibility of intellectual content due to lack of access to subject-based periodicals and numbering problems (Islam, 2015; Christian, 2012; Suja & Zakaria, 2011). This implies that, the use of periodicals among postgraduate students is on the downside. This study, therefore, requires an empirical study to find out the actual factors responsible for the non-usage of periodicals and the extent to which each factor contributes to the problem. Consequently, this study is out to investigate acquisition, visibility, accessibility, and use of periodicals among Library and Information Science postgraduate students in federal university libraries in Nigeria.

1.3 Objectives of the Study

The main objective of this study was to investigate the influence of acquisition, visibility, accessibility and use of periodicals among Library and Information Science postgraduate students in federal university libraries in Nigeria. The specific objectives are to:

- i. ascertain the methods adopted for the acquisition of periodicals in federal university libraries in Nigeria;
- ii. determine the tools used for the visibility of periodicals in the university libraries;
- iii. find out how postgraduate students access periodicals in the university libraries;
- iv. investigate the use of periodicals among postgraduate students in the university libraries;
- v. identify the relationship between visibility and use of periodicals in the university libraries;
- vi. identify the relationship between accessibility and use of periodicals in the university libraries and
- vii. find out the relationship among acquisition, visibility, accessibility, and use of periodicals among the postgraduate students in the university libraries.

1.4 Research Questions

The following research questions were answered in this study:

- i. What methods of acquisition of periodicals are adopted in federal university libraries in Nigeria?

- ii. What are the tools used for the visibility of periodicals in the university libraries?
- iii. How do postgraduate students access periodicals in the university libraries?
- iv. How do postgraduate students use periodicals in the university libraries?

1.5 Hypotheses

The null hypotheses were tested at 0.05 level of significance:

- H₁: There is no significant relationship between visibility and use of periodicals among postgraduate students in the university libraries.
- H₂: There is no significant relationship between accessibility and use of periodicals among postgraduate students in the university libraries.
- H₃: There is no significant relationship among acquisition, visibility, accessibility, and use of periodicals among postgraduate students in the university libraries.

1.6 Significance of the Study

The study is of immense benefit to University Management, librarians, researchers and students. It will be useful to the university management because it provided information on the methods of acquisition, how to create visibility and make the periodicals accessible which will, in turn, bring an improvement on the use of periodicals by postgraduate students.

Secondly, librarians will find it useful as it revealed the postgraduate students' use of periodicals (searching, downloading, locating, etc) and their shortfalls, which will lead to the design of policy on the minimum and maximum usage of the library in general and periodicals to be specific.

Thirdly, researchers and students will find it useful because it will serve as background information to the researchers that are interested in the field of periodicals acquisition while students will benefit from the study because it provided information on the tools for accessing and downloading periodicals, thus, increasing the extent of usage. Lastly, the study will add to the body of literature on acquisition, visibility,

accessibility and use of periodicals among library and information science postgraduate students in federal university libraries in Nigeria, thereby influencing researchers' interest in periodicals collection.

1.7 Scope and Delimitation of the Study

This study focused on the acquisition, visibility, accessibility, and use of periodicals among Library and Information Science postgraduate students in federal university libraries in Nigeria. The study was interested in ascertaining the methods adopted for the acquisition of periodicals in federal university libraries in Nigeria; determining the tools used for the visibility of periodicals in the university libraries; finding out how postgraduate students access periodicals in the university libraries; investigating how postgraduate students use periodicals in the university libraries; identifying the relationship between visibility, accessibility and the use of periodicals in the university libraries. The study covered Kenneth Dike Library, University of Ibadan, Oyo State; Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Enugu State; Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra State; University of Calabar Library, Calabar, Cross River State; University of Uyo Library, Uyo, Akwa-Ibom State; University of Ilorin Library, Ilorin, Kwara State and Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna State. The selection of these universities was because they were some of the federal universities in the region offering postgraduate programme in the Department of Library and Information Science. It is limited to Library and Information Science postgraduate students in seven federal universities in Nigeria. This comprises five federal university libraries in the Southern part and two federal university libraries in the Northern part in Nigeria.

1.8 Operational Definition of Terms

The following terms are defined as used in this research:

Accessibility: This refers to the convenience, ease of locating and proximity to periodicals collection.

Acquisition: This is the process of acquiring materials after the final selection decision had been made and concerns all the processes involved in building up the collection of the library.

Periodicals: These are serials publications with distinctive titles, containing a mix of articles by more than one contributor, issued at regular or stated intervals of less than a year, without a prior decision as to when the final issue will appear.

Postgraduate: This is an academic programme that occurs after an undergraduate degree has been obtained. It is connected with further studies that someone does at a university after receiving his/her first degree.

University Library: This refers to the type of academic library that is found in the university, solely for the support of the teaching-learning process and academic excellence of researchers, students, lecturers, and the university community.

Use of Periodicals: This refers to the exploitation (searching, downloading, etc) of periodicals with the full extent of getting the required information to actualise academic pursuits.

Visibility: It means the geographical spread of periodicals of a library within and outside the university library.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter is devoted to the review of related literature on the acquisition, visibility, accessibility, and use of periodicals among postgraduates in federal university libraries in Nigeria. The review is organised under the following sub-headings:

2.1 Theoretical Framework.

2.2 Conceptual Framework.

2.3 Methods of Acquisition of Periodicals in Libraries.

2.4 Visibility of Periodicals in Libraries.

2.5 Accessibility of Periodicals in Libraries.

2.6 Use of Periodicals by Postgraduate Students in Libraries.

2.7 Acquisition, Visibility, Accessibility and Use of Periodicals in Libraries

2.8 Appraisal of the Reviewed Literature.

2.1 Theoretical Framework

The theoretical framework for this study is Trice and Treacy (1986) utilisation as a dependent variable in research. Therefore, the study adopted the utilisation as a dependent variable in research in investigating the research variables. The justification for this theory is because the variables are relevant to the intention of this study as it focuses on the utilisation of a system (periodicals). Consequently, the application of the theory is anchored on the utilisation as a dependent variable in research.

This theory was developed by Trice and Treacy (1986) to address the amount of use an individual, group, or organisation makes of an information system as a key variable in Management Information Science research. It is often used as a dependent variable when studying or predicting the impacts that an information system has had on process, structure, and performance. The degree and type of impacts would quite naturally be expected to vary with the amount of use that is made of the system. The utilisation of a system has also been used as a dependent variable. It has been modelled as an outcome construct that can be influenced by the process of design and implementation and by characteristics of the information system, the task, the individual user and its interaction.

As an approach, its application to fields such as library and information science, social sciences and arts and humanities. has continued to be significant especially in issues relating to acquisition and visibility in libraries or organisations that could enable students to access and use information resources (periodicals). Trice and Treacy (1986) opined that “utilisation is either the amount of effort expended interacting with an information system or, less frequently, as the number of reports or other information products generated by the information system per unit of time” (p. 2). Examples include frequency and number of computer sessions, connect time, and time spent using different system functions, the number of records updated, and keystrokes or carriage returns. Therefore, its application to this study which sets out to investigate acquisition, visibility, accessibility and use of periodicals is appropriate.

The critical aspect of the theory is the users’ interaction with an information system which is constructed through the task characteristics and the individual user

differences which will invariably amount to an effective use of periodicals. The research framework provides the impetus for a large stream of empirical research that has studied the relationship between individual utilisation of an information system and the four types of independent variables. This research structure is illustrated in Figure 2.1.

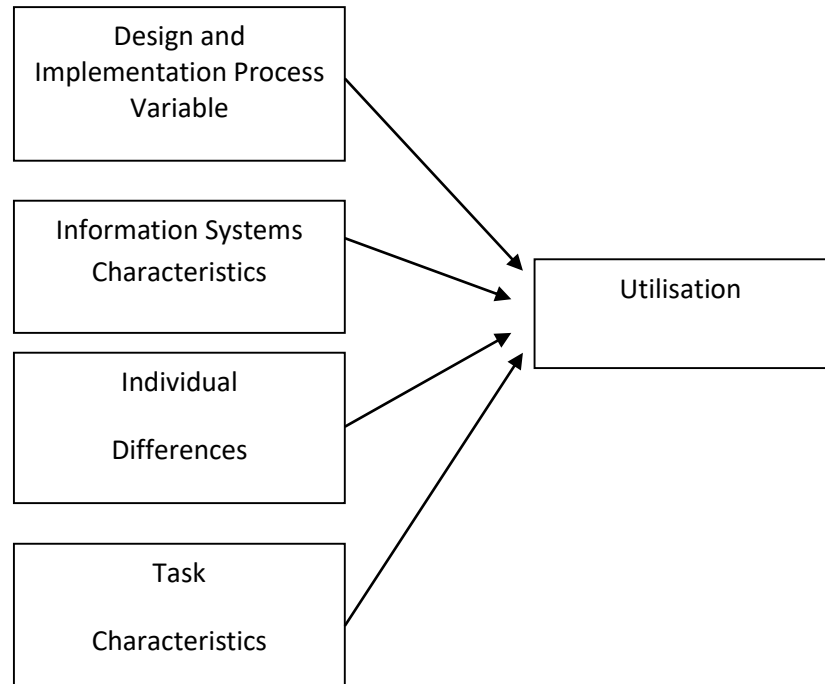


Figure 2.1. Trice and Treacy (1986) Structure of Utilisation Research

The structure is relevant to the study due to the inclusion of task characteristics that are basic requirement in accessing and using periodicals. The process encompassed the nature of the tasks users must execute to use periodicals through the various stages of information seeking such as accessibility and the measure of the suitability of the acquired periodicals to the needs of different users. The utilisation structure consists of four independent variables:

Design and implementation process: At this stage, different information technologies are introduced into an organisation which could be likened to the acquisition of periodicals in the library. This involves the support of the parent organisation, user involvement and understanding of the activities of potential users.

Information system characteristics: Once the periodicals have adequately been acquired, then they are made visible for users' interaction in form of accessing them with the use of keywords or other search terms.

Individual differences: Each student has his/her different search terms and purposes of using periodicals in the university library. As such, there is usually an implicit assumption that utilisation is an indicator.

Task characteristics: This involves the interaction of users with the periodicals. After students have determined their search terms, they must define the tasks, search the databases and perform other activities such as reading, copying and pasting, printing, downloading, etc. for an effective use of periodicals.

2.2 Conceptual framework

This study focused on the conceptual framework of acquisition, visibility, accessibility and use of periodicals by postgraduate students. The conceptual framework proposes that a relationship exists between the independent variables (acquisition, visibility and accessibility) and dependent variable (use of periodicals) and acquisition, visibility and accessibility could influence their use of periodicals. In other words, acquisition, visibility and accessibility relate to students' use of periodicals.

Independent Variables

Acquisition of periodicals

- Patron-driven acquisition
- Purchase
- Subscription

Figure 2.2 provides the conceptual framework for the study. The objectives are to investigate the factors that influence postgraduate students' use of periodicals in

federal university libraries. Therefore, the factors proposed as influencing the use of periodicals were selected from the literature. These factors were then associated with the actual use of periodicals among individual postgraduate students to form the framework. The framework has three independent variables that were derived from previous research. These key variables may serve as an influence on the use of periodicals among postgraduate students in university libraries. In this study, the focus is placed on the interaction of these variables. This theory was used by O'Reilly in 1982 in his study of utilisation as an independent variable and found that accessibility of sources of information primarily determines utilisation. Also, Srinivasan (1985) in his study on alternative measures of system effectiveness using utilisation as a dependent variable, observed the number of accesses per month, connect time, and the number of light, average, and heavy users interact with utilisation.

Trice and Treacy's (1986) theory of utilisation as a dependent variable in research stipulated that the amount of use an individual or group makes of an information system is a key variable in research. They noted that the level of use of a system has been modelled as a construct that can be influenced by the process of design and implementation and by the characteristics of the task of an individual user and their interaction with the system. Some other variables that can influence the use of periodicals are acquisition, visibility, and accessibility. Justification for each of the variables is provided as thus:

- **Acquisition of Periodicals:** The research explained that methods of acquisition influence librarians' capacity to acquire periodicals for use. The framework, therefore, indicated that acquisition has a direct influence on the use of

periodicals. It posited that the use of periodicals among postgraduate students will be dependent on the number of periodicals acquired by the libraries using various methods such as purchase, subscription, etc.

- **Visibility of Periodicals:** Visibility through institutional repository, self-archiving, bibliometrics, consortia search engine, display racks, catalogue, etc, as shown in the framework, will influence their utilisation by the postgraduate students.
- **Accessibility of Periodicals:** Access by keywords, subject, title, author, etc.
- **Use of Periodicals:** This has to do with an interaction with the various types of periodicals in the form of searching/locating, reading, printing, copying, etc. Accessibility of sources of information primarily determines utilisation (O'Reilly, 1982).

The framework shows that for periodicals to be properly used, variables such as acquisition, visibility, and accessibility should be properly carried out. Postgraduate students, irrespective of their locations, should be provided with necessary periodicals that are visible and accessible to effectively use periodicals for quality research. Adapting this theory in research, this study considers acquisition, visibility, and accessibility as the factors that could influence the use of periodicals among library and information science postgraduate students in federal university libraries in Nigeria.

2.3 Methods of Acquisition of Periodicals in Libraries

Acquisition of periodicals is the business side of the library which involves the interaction with publishers, management of library budgets and steps carried out to add

periodicals to the collection (Texas Health Science Center, 2016). The inclusion or exclusion of materials in the library collection is mainly based on the information content and financial position of the university, notwithstanding the nature of the materials whether books or periodicals. A periodicals section handles all activities related to the acquisition operation such as searching, ordering, and receiving, routing, paying, claiming, managing records and binding.

However, Agbadiuno, Agbo and Onyekwodiri (2015) noted that, “acquisition functions are generally located in the technical service divisions whose operations provide access to information in all its forms and formats” (p. 2). Acquisition process may include identifying and selecting materials for the library’s collection; pre-order searching to identify duplicate orders and to verify correct author and title as well as availability and price; ordering of materials from vendors or publishers; negotiating licensing agreements and contracts for electronic resources; claiming materials not delivered within the expected time frame; receiving materials; approving invoices for payments; physical processing such as ownership identification, security taping, and call number marking; binding; and preserving materials as needed. In technical service, there is a need for librarians’ specialisation in periodicals because the acquisition and cataloguing functions are performed. Periodicals require open orders because their acquisition methods and procedures are different from those of books. This means that, for periodicals to be acquired and successfully added to the collections of the library, librarians must be involved in a rigorous process before access is granted to users.

Bajracharya (2015) surveyed periodicals management system at the TU central library and revealed that the library used major methods (purchase, exchange,

gift/donation, and institutional membership) for periodicals acquisition due to the nature of fund allocated to the library. Generally, Okpokwasili and Blakes (2014) noted that there should be a need for periodic evaluation of the university libraries to determine how well they are meeting the needs of the users. Users are in the best position to evaluate the effectiveness of any library. Such evaluation should determine how well periodicals are acquired to meet their needs. This statement infers that, users must be consulted in the acquisition process for a perfect match with their curriculum which could be through informal discussion, a user opinion survey, suggestion slips, library blog, etc.

Ashikuzzaman (2018) stated that, in periodicals acquisition, several channels and alternatives are found and to obtain periodicals through appropriate channels is the responsibility devoted not only to the librarian but also on those engaged in the library management. Aghadiuno, Agbo and Onyekwodiri (2015) studied acquisition and organisation of serials and other continuing resources in two selected university libraries in Nigeria and the result showed purchase, consortia, and publishing as the methods of acquisition and revealed that the respondents adopted all mentioned methods. However, the methods of acquisition of periodicals, according to Nisha (2011), include a subscription to publishers, dealing with the vendors, purchasing from local newsagents, taking membership of a learned society or professional body, gift and exchange programme. Also, Abdulsalami and Arowolo (2019) described several avenues through which periodicals can be acquired as:

- i. Purchase of carefully selected periodicals.
- ii. Subscription to publishers of periodicals that could be mailed directly to libraries.
- iii. Exchange of some periodicals which are rare and difficult to come across.

iv. Legal deposit/field collection within the university community which must be scrutinised before adding them to the stock of the library to avoid the entire stock being diluted. This depends on the kind of library.

v. Gift from philanthropic persons or professional organisations.

(a) Acquisition of Periodicals by Purchase

University libraries acquire periodicals utilising purchase from local suppliers as they are found to offer a little discount on the price of certain periodicals on the condition that a certain amount of lucrative business is given. Purchase refers to the possession of a given item or right by paying a predetermined amount of money for the transaction to be completed successfully. Acquiring periodicals through purchase is a complex activity in which vendors, newsagents, aggregators, and bookstores are involved. According to Plockey, Appiah and Ofori (2019), direct purchase comes in two modes. The first entails ordering periodicals through jobbers, vendors or agents. Their findings revealed that ordering from vendors was better than publishers. The second involves purchasing periodicals at retail bookstores which is farther and more convenient. As noted by Baburao (2011) and Projectsolutionz (2018), this method is used because it is reliable, effective, time-saving and dependable, provided the payment is done in due time. In the acquisition of periodicals, librarians are under pressure to purchasing periodicals before access is granted (Emeghara, 2018). The findings of Ani, Ngulube and Onyancha (2014) revealed that, their respondents used direct purchase 68(60%) as the method of acquiring resources in the library; 33(29%) stated that resources are acquired through donor while 13(11%) accepted resources are acquired through exchange means. This implies that, in adopting this method of acquisition, librarians are involved in various processes such as

negotiating with periodical vendors, book stores and aggregators for an effective purchase to take place. These are used for urgent items that are likely to be on the shelves and to reduce the problem caused by the complexity of periodicals (Arthur & Brafi, 2013). Wu, Sabol, Sexena and Tao (2016) in a study, reported that the budget used to purchase periodicals kept decreasing as universities struggled with user retention as such, librarians needed to be involved in agile negotiation with vendors, etc.

(b) Acquisition of Periodicals by Subscription

Subscription may be referred to an arrangement to receive something, typically a publication, regularly by paying in advance. A subscription service is a commercial business that processes periodical orders for all types of libraries and provides a variety of services to librarians. According to Baburao (2011), most often, libraries prefer to acquire periodicals directly from publishers who accept subscription and mail copies at the subscription price which is usually paid in advance. The work relating to the payment of a subscription of periodical publications is concerned with the collection of receipts and the examination of register card to ensure that subscription has not been made.

Ravat and Kumar's study (2002, as cited in Rao & Reddy, 2018) revealed that university libraries usually spend more than 75% of their total budgets on the subscription of periodicals only as against the recommended 5% which was later upgraded to 10% university budget allocation following Academic Staff Union of University (ASUU) pressure in 1992. This implies that university libraries are spending more than their yearly allocations. Anderson (2017) noted that, the persistence of periodicals subscription budget by libraries has got tighter and tighter and academic libraries have begun shifting money out of that of book budgets into periodical budgets.

According to American Research Libraries (2012), libraries have been steadily losing ground as the percentage of university funds spent on libraries has declined over the years from a higher 3.7% in 1984 to a decreasing trend, under 1.8% in 2011.

Hameed and Osunrinade's (2010) study revealed that university libraries devote a lot of funds to the acquisition of periodicals. This is in agreement with Oyewumi and Alegbeleye's (2014) finding which emphasised that adequate funding should be considered as a basic necessity for the effect of periodicals acquisition and utilisation in university libraries. This does not mean that acquisition happens in isolation; as soon as periodicals are acquired through the various methods, they should be properly registered and sent for display both on the display inclined rack by subject-wise and on the institutional repositories, replacing the old periodicals. The preceding as hinted by Bajracharya (2015), should be placed into compartments provided for in the rack itself so that it would become visible and accessible for consultation.

(c) Acquisition of Periodicals by Consortia

Turner (2014) referred “consortia” to mean an effective strategy to increase the acquisition power of individual library as an opportunity to maximise cooperative collection building and resource sharing over the short or long term. This implies that libraries should be proactive in their acquisition through consortia as it offers the ability to give users the access they are coming for. Most African university librarians revolve around collaboration and networking within institutions to lobby policymakers, get

professional support in acquiring periodicals to satisfy their user community (Musoke, 2009).

As noted by Rajan and Baral (2015), modern universities are making significant investments in their subscriptions and acquisitions of up-to-date periodicals in their libraries. Despite their avowed benefits, their usage declined. Thus, Mohamed and Hassan (2008) asserted that, universities need to understand their adoption of acquisition methods from users' perspectives to ensure that their students (postgraduate students) are prepared to face the challenges that come with it and are instructed on how to make good use of periodicals within their disposal to reap tangible benefits. Hence, it is pertinent to understand the concept of patron-driven acquisition in an academic environment.

(d) Patron-Driven Acquisition (PDA)

The concept of patron-driven acquisition is not a new idea. It is the day-to-day services of many libraries around the world. Switching from subscriptions to PDA-driven per-article purchasing could curtail what gets published. The theory behind this method of acquisition is that library users are specialists in their fields of study. The patron-driven acquisition, also known as the demand-driven acquisition, is a process of buying resources based on patron demand or resource requests (Fischer, Wright, Clatanoff, Barton & Shreeves, 2012). It builds from a pre-existing base file of bibliographic records from which users make their choices. It also allows periodicals to be purchased at the point of need rather than acquisition by librarians in the hope that it will be used. This assertion means that libraries are creating a collection that will reflect what their users seek for without wasting time searching the catalogue or going through other processes to use periodicals. This method of acquisition is all about just-in-time, not just-in-case.

Other methods of acquisition of periodicals in the library, according to Plockey, Appiah and Ofori (2019), include socialisation, externalisation, combination and internationalisation of artifacts:

- (a) **Socialisation:** This is where there is a passage among individuals of tacit knowledge to tacit knowledge through the process of a collective sharing of knowledge. According to them, libraries create knowledge when they interact with others and this can be in the form of library seminars, workshops and conferences attended.
- (b) **Externalisation:** This refers to the transfer of knowledge from the minds of its holders into the external repository. This is based on the conversion of knowledge to explicit knowledge. In this process, tacit knowledge is codified, sorted, categorised and held in a database or documents to be reused by others (researchers). This comes in the form of minutes of meetings, oral information in a form of research output, policies, television reports, library annual reports, etc.
- (c) **Combination:** This is the combination of tacit and explicit knowledge.

2.4 Visibility of Periodicals in Libraries

The escalating change in accessibility of periodicals impose pressure on librarians and emphasised the tension between what can be done in an ideal situation and what can be done in realistic terms. As expectations have changed, librarians are faced with growing demands from postgraduate students for better access to periodicals to actualise their academic pursuits (Isa, Abu, Bala & Abdulhamid, 2017). Visibility according to Mauvais (2018) referred to “as the degree to which something is seen by

users” (p. 48). This statement indicates that visibility is assured when libraries have widely distributed and well established channels of periodicals that can be used by their user community. The essence of periodicals is to increase their usefulness by making them visible to the information seekers. Lawton (2015, p.215) used five questions to ascertain the level of visibility of periodicals in the library:

- i. Are the periodicals recognised as information paths by name?
- ii. Is it clear for users to get to the serials section of the library?
- iii. Do users know where periodicals are located/ displayed?
- iv. Do users understand what the library has to offer?
- v. Do users value periodicals as an information resource?

This literally means that, for a librarian or university library to make boast of being visible, the above questions must be answered in order to ensure a better access to the various types of periodicals such as journals, magazines, newsletters, newspapers, etc and electronic formats must be made visible to students for an informed decision and quality research through various tools in place.

- vi. Journals- This is a medium for communicating research findings by scholars. It reports the latest development in the field. It is usually produced by a specialist or an association. According to LibGuides (2016) journals are articles written by researchers and scholars in a field who report the results of original research and are usually published monthly or quarterly. As hinted by Estrada-Meja and Forero-Pineda (2010), journals published by academic societies or university departments typically suffer from poor visibility, low circulation, irregular publication, and a very local character, since they accept very few contributions

from non-members. An example of this is the Journal of Library and Information Science. Apart from the print journals, university libraries subscribe to some online journal databases in the form of African Journal Online (AJOL), Directory of Open Access Journals (DOAJ), Highwire Press, EBSCO Host and Journal Storage (JSTOR) to enhance visibility and access to scholarly articles within their reach:

- a. African Journal Online (AJOL): This is a peer-reviewed journal published to improve online visibility and access to publications within the African domain (AJOL, 2019). These publications are not restricted to a particular discipline.
- b. Directory of Open Access Journals (DOAJ): This directory helps researchers [postgraduate students] to have access to the entire article and other information without restriction. It is an online directory that indexes and provides access to quality open access and re-viewed journals (DOAJ, 2019).
- c. Highwire Press Inc: It is a company that provides digital content and services to independent publishers that produce journals and other scholarly publications.
- d. Elton Bryson Stephens Company (EBSCOHOST): This is a leading provider of research databases, electronic journals, and magazines that can be accessed from library home pages that subscribed to it.
- e. Journal Storage (JSTOR): It is a digital library of academic journals that provides full-text searches to almost 2, 000 journals.
- vii. Magazines: This generally contains written articles, photographs, and advertisements. They can be popular magazines that deal with sports, travel,

fashions, etc. They are good for reading and entertainment. They also provide information on topical issues.

viii. Newsletters: These are found in the university libraries as they provide information of interest to members, customers, or employees. A newsletter may be considered "grey literature". They are regularly distributed publications that are generally about one main topic of interest.

ix. Newspapers: These are periodical publications containing written information about current events.

Most university libraries in Nigeria subscribe to some of these databases with the help of Tertiary Education Trust Fund (TETFUND) interventions to make periodicals visible, thereby, meeting the information needs of their university community. Visibility is a common term in defining management success in many management philosophies. In line with Crumpton's (2010) study, success stories clearly define management involvement, awareness of operational staff as cornerstones to providing a high level of service to users as well as serving as motivational tools for maintaining morale and productivity. Visibility of resources, according to Ibrahim (2014) referred to readily access to information. A key requirement for accessibility of periodicals is the visibility of periodicals which requires communication to explore the internal state of the library to the user community as it requires more financial resources. This is because students cannot explore the library without seeing what they intend to access and use to actualise their academic aim.

However, Ma and Romer (2014) asserted that, since resources are scarce in university library environment, a balance between a sufficient level of visibility and

tolerable access to information needs to be found for users to define which state should be visible and the information needs to solve. Also, for a periodical to be visible, it means that it has some measure of impact in the global community and must have secured a reasonable impact in the growth of knowledge and this can be obtained when it is neither read nor cited by others (Zainab & Anwar, 2008). Therefore, it implies that for periodicals to be adequately and productively used by postgraduate students for high quality and good research, periodicals have to be seen not obscured and obstructive. It is not enough to have a wide range of periodicals without a proper tool for visibility to encourage access which breeds utilisation. If periodicals are visible, if users can see periodicals, there will be high usage of periodicals. This relationship between visibility and usage is interdependent (Claartje, Hoeven, Stohl, Leonard and Stohl, 2019).

According to Scochi, Munar, Pedreria, Padilha and Marziale (2012), to make periodicals more attractive (visible), persons involved in organising information resources (periodicals) must be professionalised especially in the techniques used to select periodicals that have high information impact and indeed communicate novelties. They further averred that the availability of periodicals in a library system makes ample distribution and democratisation of the science a necessity, principally to give visibility to production and an intellectual output within the library for users to interact. This amplifies the flow of scientific communication. Developing periodicals visibility and becoming a member of networking libraries has been a principal trend noticed among higher education libraries and visibility is reached when a library has a well-articulated network of periodicals (Lor, 2016).

The finding of Nwachuku, Abdulsalami and Salami (2014) showed that, increase in visibility of materials (online resources, Online Public Access Catalogue, research gate presence, institutional repository, and publications) is beneficial for librarians. They categorically stated that, indeed, much research productions generated in Africa are highly under-utilised in the global scholarly community as a result of lack of global visibility, thus need proper organisation to increase their visibility and impact. University libraries should look at various preservation methods in making these rare publications visible and accessible to their immediate community (Ezema, 2011). The consequent lesser visibility presents some challenges not only to those undertaking research, but also those who publish periodicals. Lack of well-established and complete indexing systems for periodicals limits users' ability to identify relevant materials from their university libraries.

Punchihewa (2012) affirmed that libraries should provide a clear idea to users about the visibility of periodical titles by designing a proper mechanism to provide access to the periodicals collection. The professionalisation of journals requires greater agility in publishing and communication with authors coupled with the adoption of standardised norms capable of being recognised by researchers throughout the world (Cabonero & Dolendo, 2013).

Sin (2014) conducted a survey on Malaysian library and information periodicals and avowed that, in terms of visibility, out of the ten periodicals sampled, only four were being indexed and abstracted by the library and information science abstract while others were not covered. According to him, the library and information science periodicals are not too attractive as they do not bring in many economic returns. The obvious advantage

of having a serials division in any library is to manage periodicals to speed up the visibility and accessibility of up-to-date periodicals. Great and vibrant libraries are measured by the level of visibility of periodicals acquired or subscribed through reputable publishers as well as the quality of collections (Emeghara, 2018).

To increase the visibility of items, according to Bankole (2019), priority should be given to titles that are directly relevant to the needs curriculum of the university community. The titles selected should be appropriate to the level of study based on the perspective audience and use and should be evaluated within the context of existing library resources and projected library support for the purchase of other subject related materials. Overlapping titles should also be reviewed. Various systems could be adopted by a library to enhance periodicals visibility.

Lee, Burnett, Vandegrift, and Baeg (2015) argued that institutions can increase their visibility and prestige by centralising the intellectual work of their members, thus enabling researchers to find relevant materials more easily. The greater visibility of information provided to the user community via a shared database not only empowers users to consult periodicals more efficiently and effectively but also make them more visible to others within the institution (Rajan & Baral, 2015), since an increasing percentage of library budgets are spent on periodicals for effective global access and readership. Some of the approaches to enhance the visibility of periodicals may include but not limited to institutional repository/open access repositories, social networking tools, collaborative initiatives, etc.

(a) Institutional Repositories and Visibility of Periodicals

Institutional repositories are digital collections of the intellectual output of the university community. According to Keith (2010), they are the expressions of institutional vitality. Repositories are developed to manage, preserve and provide access to the growing body of digital materials generated through research, teaching and administrative activities of the university. It guarantees academic visibility which leads to recognition and prestige while recognition leads to usages (Orsu, 2019). It is the home to scholarly, administrative and cultural heritage that support, engage and inspire the university community and a reflection of intellectual achievements of an institution. Most institutions have repositories to store and make available their institutional assets such as periodicals, in most cases libraries run the repositories on behalf of their institutions. The development of an institutional repository redefines the production and dissemination of scholarly materials within an academic community. Institutional repositories, also known as Green OA, are a part of a larger open access movement, which aims to provide free access to users over the internet.

The adoption of institution repository, according to Tapfuma and Hoskins (2019) is to increase the visibility of research output (articles published, journals, newsletters, etc) deposited in the university library for a wider readership. Institutional repositories are managed by universities to accommodate their own authors' works, as well as a convenient place to direct others to find the entire mass of an author's work. The institutional repository serves as a permanent, ever-growing free digital archive to disseminate research and scholarship as widely as possible. The function of an institutional repository was coined by Lynch (2014) concerning universities. He argued that "a university-based institutional repository could be a set of services that a university

offers to the members of its community for the management and dissemination of digital materials created by the university and its community members...” (p. 4).

Institutional repository, as hinted by Kumar (2012), provides researchers with a common platform so that everyone in the institution can contribute scholarly articles and publications to promote visibility. It has several benefits, including access to periodicals, visibility of research and presentation of the contents. The content of an institutional repository depends on the focus of the institution. He noted that the concept of institutional repository suggests the tantalising possibility of greater library influence over the full cycle of scholarly communication on campus, from research through publication, collection, and preservation. This correlates with Kaladhar and Rao’s (2018) finding which affirmed that the repository approach of organising and consolidating periodicals makes it possible for all library users to access them easily and also enable knowledge sharing as it increases the visibility and prestige of the institution. Institutional repositories are a value proposition for universities as they showcase a university's research output and increase the visibility and accessibility of scholar's research (periodicals) (Luca & Narayan, 2016).

According to Zainab (2010), most repositories deposit all types of items; scholarly and non-scholarly, including journal articles, conference papers, examination questions, research reports and images. Repository represents a concise and coordinated warehouse of intellectual resources, books, journals, research articles, educational volumes, and manuscripts. For instance, the University of Nigeria repository provides a condensed tip of the educational contributions of past and present academia, broadening to include scholarly articles and an array of intellectual gifts to anyone whose search for

answers and solutions brings them to their doorstep. Thus, Wells (2009) averred that "institutional repositories are exclusively a web-based technology and as such have seen some application of evaluative investigation aimed at their integration and visibility.." (p. 9). This implies that the success of institutional repositories will depend on the visibility and the ability of users to satisfy their information needs.

According to Ashikuzzaman (2018), different techniques can be used to enhance the visibility of periodicals through the use of the institutional repository. The techniques include:

- i. **Profiling Strategy:** This policy aims to enhance the profile and create an affirmative brand for the repository. The policy, for instance, includes the utilisation of articles, publications, newsletters, and web sites that analyse the overall advantages of institutional repositories.
- ii. **Pull Strategy:** The purpose of this strategy is to reward and encourage authors to deposit their work in the repository. The strategy offers specific incentives for researchers who deposit.
- iii. **Push Strategy:** This strategy demonstrates the positive effects of the repository once the material has been deposited. One of the best examples of this is to highlight usage statistics for authors since downloads of content in repositories tend to be very high. Other aspects of a push strategy can include removing existing barriers by, for example, assisting authors with their deposits and providing rights checking services.

- iv. **Consultation Strategy:** This involves direct communication and consultation with faculties and departments to improve messaging and better engage faculty in developing the repository to meet their needs.

According to Tidor (2018), institutional repositories have several benefits, including access to resources and visibility of research contents. The content of an institutional repository depends on the focus of the institution. Institutional repositories are hosted by universities to facilitate access to periodicals deposited. Examples of such digital institutional repositories include: University of Ibadan institutional repository, University of Calabar institutional repository, University of Benin, institutional repository, Nnamdi Azikiwe University institutional repository. Some of the universities use Dspace and E-print software which complies with open archive, thus, allowing periodicals to be easily discovered and accessed by web search engines as shown in Table 1.

Table 1: Examples of Institutional Repositories in Nigeria

Repository	Software	Content	Access
University of Ibadan Nigeria http://ir.library.ui.edu.ng/y	DSpace	Collection of theses, articles, books, videos, images, lectures, papers, data sets and all types of digital content originating from the university.	Full-text access to most items. unless the restrictions are required by copyright owners.
University of Calabar repository https://www.unical.edu.ng/#	DSpace	Collection of all types of digital contents including text, images, moving images, mpegs, and data sets	Full access to all contents
The University of Nigeria Library Repository https://www.unn.edu.ng/libraries/institutional-repository/	OER	Collection of journal articles, conference and workshop papers	Unrestricted, full access to report.
John Harris Library, University of Benin http://dspace.uniben.edu/jspui/browse?type=title	DSpace	Nil	Restricted access
Nnamdi Azikiwe University https://unizik.edu.ng/oer/	E-print	Collection of scholarly articles, papers and other academic materials	Restrictions for examination papers

It could be seen vividly from the example in Table 1 that some universities in Nigeria are painstakingly investing on institutional repository despite their declining library budget allocations in order to enhance the visibility of periodicals collection to a wider audience, thereby, attracting users to their services which will in turn result to collaboration to enhance knowledge sharing. Though Nigeria is still a developing country as compared to some United Kingdom repositories like Cambridge DSpace@Cambridge institutional repository, University College London UCL Eprints institutional repository, Oxford University Oxford University Research Archive, Imperial College of Science, Technology and Medicine Imperial College ePrints institutional repository, Manchester and UMIST DSpace at Manchester,

King's College London King's ePrints institutional repository, Southampton e-Prints Soton institutional repository and Leeds White Rose Partnership institutional repository. The majority of UK repositories are linked to higher education institutions which are in the form of web-based services usually delivered through the university library. An example of an institutional repository using Dspace software is shown in fig. 2.3.

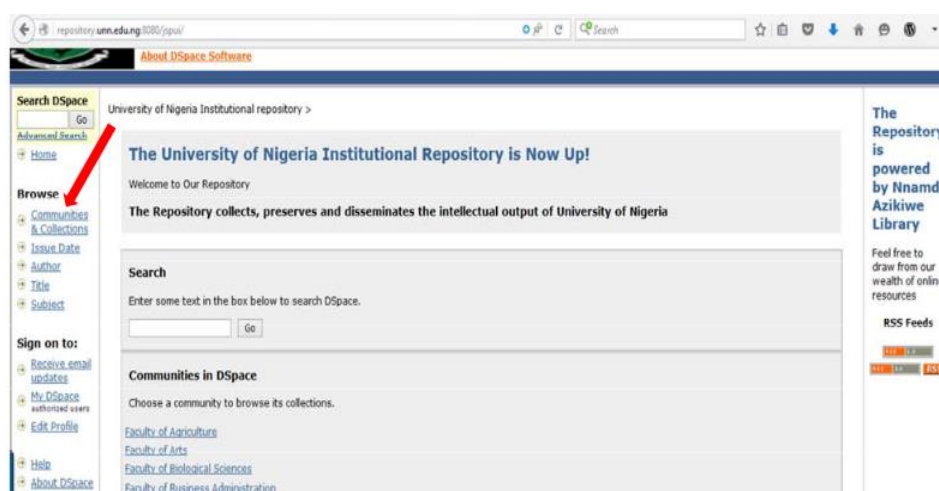


Fig. 2.3 – Screen image of the webpage of the digital repository with DSpace software

Based on the example in Fig. 2.3, different types of periodicals in the same database will be made visible and accessible by using the same criterion of search by authors, addressing a specific target group: research reports and scholarly published articles. Similarly, the search can be conducted by periodical titles (Repanovici, 2011). The creation of institutional repositories considerably promotes intellectual communication. It provides librarians with opportunities to participate in essential research activities, increase the visibility of the libraries, and reinforce the value of the libraries among the research community. An open-access repository is outlined as a

group of full-text documents obtainable in on-line databases on the net that may be accessed freely and instantly (Princh, 2019). Open access has significantly contributed to the evolvement roles of academic librarians in service delivery facilitations to active players in knowledge production.

Suber (2019) affirmed that, open access is making scholarly published research articles visible to the public and noted that there are two primary vehicles for enhancing the visibility of periodicals: open access journals commonly referred to as gold access and open access repositories also known as green open access. Though they both enhance the visibility and accessibility of content, but of green open access belong to an institution that permits their authors to archive their articles for global access and use. Open access is the provision of access to academic periodicals and enabling users (postgraduate students) anywhere to access and use them. This implies that greater visibility of periodicals can result in higher ranking, thus, enhancing the profile of the university.

Soong (2009) surveyed the measuring citation advantages of open accessibility and revealed that, of the 50 articles studied, only 58% had greater visibility and accessibility to users while the remaining 42% had not yet experienced similar growth. Institutional repository serves as a secured central repository of scholarly output of university and offers greater visibility for the research conducted by the university community. However, Priem, Piwowar, and Hemminger (2011) hinted that open access makes periodicals accessible across academia and society as a whole. It gives the library a worldwide audience larger than any subscription-based periodicals and demonstrably increases the visibility and impact of authors' work in the institutional repository; thereby, giving users access privileges and retrieval power.

Despite the increasing interest in the institutional repository by educational establishments and recognition that publisher policies build widespread green open access presently accessible and accomplishable, deposit in institutional repository remains low (Grundmann, 2009). And, in spite of the effort made by the tertiary education trust fund (Tetfund) in support of researchers (lecturers and faculty members) to strengthen the scientific prominence, cutting-edge technologies, ideas and skills in research output within and outside the university and the perception of researchers, self-archiving and depository remain steadily dwindled. This could be attributed to the fact that the university community perceives self-archiving as an extra workload after publishing their articles.

Self-archiving, according to Wikipedia (2019), is the act depositing a free copy of an electronic document online to maximise its accessibility, usage and citation impact. Research journals and conference articles, as well as theses and book chapters, can be deposited in the author's institutional repository. Self-archiving ultimately accelerates the process of sharing of intellectual output. It is a supplement to, not a replacement for traditional publishing mechanisms. The potentials of self-archiving must be understood to transform the scholarly journal articles for many disciplines. This mechanism of enhancing visibility is outside the traditional publishing system, and only requires authors to retain rights, and to deposit their work in their institutional repository. Mullen (2008) stated that, librarians should encourage faculties and departments to participate in the population of the institutional repository to enable access and wider usage.

Koelen, Shafack and Ngum (2009) undertook a study on “think big, start small” institutional repositories: policies, strategies, technological options, standards and best

practices and revealed that most universities in Africa face challenges in developing institutional repositories due to fundraising and lack of up-to-date information and the difficulty to increase visibility and access to research output. They further affirmed, that to enhance the visibility of periodicals in a typical library, policy should be developed on repositories in close cooperation with university librarians. If institutional repositories are to fully realise their potentials, then it should be visible to their user community (Wells, 2009).

(b) Bibliometrics and Visibility of Periodicals

Bibliometrics, according to LibGuides (2019), is the quantitative method of citation and content analysis for scholarly publications. It facilitates the visibility of periodicals for easy accessibility and use by postgraduate students since scholarly publications are deposited on a regular basis. The visibility of periodicals is dependent on research focus and citation database; it is profited from an interdisciplinary research. Bibliometrics is used basically for studying scholarly communication and influence which makes it a dominant tool for measuring the value of research activity, tracing relationships among academic journals and journal citations (Folkers, 2014).

Historically, the data used for bibliometric studies mainly stem from information produced by researchers' communication which geared toward having a better understanding of dissemination and use of scientific and technical knowledge. As posited by Singh (2019), bibliometrics is concerned as a standard system for visibility of research communications. This infers that librarians, in their service delivery process, must be able to extract, interpret and represent bibliometric data (scholarly publications) in different formats for easy visibility and accessibility to their users.

(c) Consortia Search Engine/Collaborative Initiatives and Visibility of Periodicals

This is a network wherein two or more libraries participate in a common initiative (project) to enhance the visibility and accessibility of their periodicals and other information resources to a wider audience. This has been developed to enable users to browse respective contents simultaneously from several library catalogues. It usually emanates as a result of an effective collaboration especially in terms of the visibility of periodicals to users. Collaboration in the 21st-century trend, according to Olaniyi and Olatunji (2017), has proved to be effective in the service delivery process. Partnerships with state or private organisations represent a fantastic way for libraries to extend its services and collaborating with different libraries from the region and provide a combined library service and additionally avail the chance to form partnerships with different libraries and provide additional captivating services to users. Sharing databases of library with another library (consortia search engine) is an amazing way to meeting and attracting different user segments. It is usually easier to partner with a public establishment that shares a similar set of values; however, an institution does even more by partnering with private organisations (LibrariesWest, 2019).

Absher and Cardenas-Dow (2016) avowed that library collaboration is about survival in the educational and cultural sphere which makes librarians comfortable in developing the ability to not only work in the in-between spaces on behalf of their users but to understand them. When a university library joins an academic library sharing site they become part of a scholarly ecosystem that combines discovery to pilot innovative access. Examples of such initiatives that can enhance visibility include: Academia.edu, researchGate, which are currently in collaborative talks with Springer, Highwire,

AGORA, HINARI, OARE, EBSCO, Research4life, etc and most universities in Nigeria are participants though struggling with meagre library budgetary allocations.

(d) Social Networking Tools and Visibility of Periodicals

Social networks are online platform that enables librarians to build a social relationship and access with users of the library. The platform allows users to share ideas, posts and inform others about real-world activities. Cognizant (2013) referred to social networks as cyber-enabled networks that compel the redefining of the concept of communication and engagement in an increased insight into the nature of the activities (library). Librarians should participate in the transition process by embracing technological advancement to reap more from the scholarly world to acquire more free online contents. They should create footprints through profiles in social networks to make their periodicals visible.

Tella and Kwanya (2018) noted that social networking tools such as Youtube, Facebook, Twitter, Research gate, etc, increase the visibility of documents for access and usage in libraries as they offer a plethora of creative and interesting events, but require a lot of time. Focusing on some on-line tools is the best way to improve your library's presence within the community and create individuals tuned in to its existence. Social network tools are marketing techniques that make invisible things visible. It helps the libraries to make their services and resources more visible to the global users to utilise their valuable periodicals and current awareness services. Librarians should take a lead in technology use, among others. However, they need to gain more time for the most important activity – helping users to access periodicals.

Priem, Piwowar and Hemminger (2011) carried out a study in Altmetrics in the world: using social media to explore the scholarly impact and observed that social media tools are beginning to affect the research workflow and a growing number of users discuss and share their research interest online. They further noted that the incorporation of social networking tools into service delivery may improve the overall responsiveness and timely retrieval of periodicals as they have a powerful advantage in enhancing visibility. Social networking tools are great for high visibility of periodicals for a wider readership. Similarly, Shinder (2010) maintained that social networking provides unprecedented opportunities for libraries to market their services. Academic social networking allows librarians to connect with their users (postgraduate students) and other librarians to share publications and get immediate feedback as it makes periodicals more visible (Ebrahim, 2016).

Social networking tools like Facebook, Twitter, Blogs, etc, according to Bhoi (2017), have become the central focus for up-to-date and timely information dissemination and most librarians in Nigeria like the University of Ibadan, University of Benin and University of Uyo are using these social media for the promotion and visibility of their periodicals. Priem, Castello and Dzuba's (2011) findings showed that libraries use Twitter as a professional medium for sharing and discussing articles more suitable for users. This correlates with the study of Esyenbach (2011) which revealed that highly-tweeted articles were 11 times more likely to be highly accessed and used. Thus, Riza-Ayu and Abrizah (2011) observed that, Facebook, Twitter, and LinkedIn were among the popular social media tools used by librarians for the visibility of periodicals.

Although, many universities in Nigeria use social networking tools to market their services thereby making their resources visible, but are struggling to gain prominence in the world. As noted by Cognizant (2013), the sociability of university libraries in Nigeria is premised on how to leverage the availability of the social network to enhance visibility. This aligns with Jukic and Merlak's (2017) finding which showed that only a few institutions have established their Facebook presence and for the most of the considerable room for improvement has been identified in terms of usage of Facebook as a social network with the highest potential of reach in the number of their users.

Some suggested tools viable for the visibility of periodicals, according to the University of Maryland (2019), include:

- i. Publications in an open repository so google will track when you've been cited:
 - an Institutional Repository
 - a Subject Repository - such as AgEcon Search, arXiv.org, RePEc, SSRN, etc.
- ii. Publish in an Open Access journal or self-archive it (if the publisher allows).
- iii. Publish/share data associated with your users
- iv. Sharing Detailed Research Data is Associated with Increased Citation Rates (PLOS ONE)
- v. Publish in an online journal with search features allowing users to find articles that cite it. For example, see "cited by" features in Highwire Press journal articles.
- vi. Share publications using social networking tools such as Mendeley, ResearchGate, CiteULike, get cited, twitter, Slideshareblogs, etc.

- vii. Create an online presence utilising tools such as ORCID ID, Researcher ID, Google Scholar Citations profile, or LinkedIn and link to your profile on university webpages, vitae, and/or within email signatures.
- viii. List/link publications on library websites or university webpages that are crawled by Google Scholar - specifically not behind a login screen such as that of Canvas, WebCT, Blackboard, or Moodle.
- ix. List as recommended reading on a course website (but not buried behind a login).
- x. Bone up on how to influence Google page rankings - Facebook shares, backlinks, and tweets are the top ways to increase page visibility in search engine result pages.
- xi. Keywords and abstracts play a vital role in researchers retrieving an article - especially for indexes or search engines that do not have the full-text of the article available. Be sure to identify numerous synonyms and use terms that you used in conducting your literature review.
- xii. Publish thought-provoking, critical pieces or literature reviews - these traditionally have higher citation rates as do those dealing with hot topics.

Other in-house systems include, display rack, catalogues, union catalogue, periodical stands, etc.

2.5 Accessibility of Periodicals in Libraries

The goal of any university library, according to Harold and Wilma (2018), is to build and maintain information resources including periodicals in diverse formats to meet the information needs of users. This, therefore, means that due attention should be drawn to the accessibility of periodicals since libraries are established with the aim that

everyone within the library deserves access to knowledge. Their usage as non-usage will automatically amount to the ineffectiveness of the library, thereby, defeating their primary aim of information provision. Ram (2015) posited that information cannot be separated from their use. Hence, the choice of information depends on its perceived accessibility. For postgraduate students to use periodicals in the library for scholarly communication, evidence of claim or quality research options, access is required to reap the essentials of periodicals based on their currency and accuracy.

Accessibility refers to the ease of locating, search, retrieval, and proximity to periodicals. It is about making periodicals obtainable to users at the quickest possible and convenient time. Accessibility modifications may be required to enable users to gain access to the periodicals collection because the aim of any university library has changed from ownership to accessibility (Fange & Iwarsson, 2018). Aina (2014) stated that accessibility determines the speed at which an information output in any format is obtained. Similarly, Cetina, Munthin and Radulescu (2012) opined that, access to relevant information is needed for the academic community to take an efficient decision in research. As averred by Research Information Network (2010), librarians need the support of senior managers across higher education sectors as well as publishers and other information providers in addressing the challenges as well as the opportunities they face. This statement connotes that users need access to periodicals that require the least effort to access.

Haliso and Aina (2012) advocated for quality service in the area of collection of current, relevant and adequate print and electronic information resources to achieve a standard that suits the needs of users. According to Nisha (2011), before adopting any of

the standards, the following criteria must be relied on: the scope of the periodicals, the demand of users, whether the titles are easily available elsewhere and the financial status of the library. For libraries to assist in the promotion of access to knowledge, they must help to identify and deliver information sought by the researcher by creating some enabling channels (Ugah, 2008). Therefore, to facilitate the accessibility of periodicals in libraries, the library is expected to provide effective access such as directories, catalogues, bibliographies, guides, indexes, and abstracts. Ola and Osagie (2011) put it that “nothing frustrates a researcher more than trying to retrieve an article, which seems right on target only to find out that the library does not own the journal” (p. 3).

According to Ram (2015), users take on the role of librarians and gain access to a vast amount of information and it is provided with a set of tools and aids that will help in extracting the data needed in the manner that suits best. Ani, et al (2014) noted that access to information is imperative to the successful conduct of research in universities. With contemporary tools, libraries can manage their budgets and activities by continuing updating reports to have insight into revenue, purchase orders, invoices, and payments-processed as well as display periodicals for easy access. Libraries work toward providing formats accessible to individuals who have diverse needs and abilities and in developing accessibility standards that must be followed both in online environment and in the traditional library, such standards may include Open web platforms (OWP), Web content accessibility guides (WCAG) and Web accessibility initiative/accessible Rich Internet Applications (WAI-ARIA).

Accessibility of resources may be conceptual, bibliographically identified and located. As noted by Ugbagir (2016), university libraries are a potential entity in the

process of teaching and learning anywhere but for users to find the library resources (periodicals) useful. It must be visible and accessible for utilisation. Accessibility is the physical or virtual contact with the periodicals. Access is a general term used to describe the degree to which resources: services are accessible by users (Aminu, 2016). The more accessible periodicals are, the more likely the periodicals can be obtained for use. Stoianov and Tselkov (2010) maintained that the objective of any acquisition is to ensure users' access to the right information resources at any moment in any location. Libraries should endeavour to provide access to comprehensive and balanced collections that meet the needs of their users.

Anasi and Ali (2011) studied resource sharing for effective access and utilisation of information in Nigeria university libraries and revealed that majority of their respondents 63(66%) preferred the use of union catalogue for effective access to periodicals, 62(88.6%) advocated for a need for a library to develop an in-house tool to aid access to their periodicals. According to Gruszczynka (2012), accessibility should be firmly embedded within an institution policy that focuses on current information to ensure access to users and strategies should be developed by serials librarians in creating periodicals accessibility. Periodicals can be accessed by using keywords, subject, title, author, etc.

Keywords: Keywords are ideas and topics that define what content is about. They are words or phrases that students enter into a search engine to obtain information.

Author: This is the name of the researcher (originator) or the corporate body responsible for the intellectual content of the publication.

Subject matter: It refers to the students' areas of the information material. It has to do with the coverage of a periodical.

The title of the periodicals can also be used to access them from the catalogue or database.

Classmark: It is a unique mark (a number) given to all processed periodicals in the library.

ISSN: an acronym for 'international standards serial number, given to every published periodical publication like journals, publisher or place of publication, etc. It is a 8-digits number used to identify publications which are published at regular intervals (print and electronic journals)

Building on the idea of the creation of tools of value that could better reflect the university's concerns and making the most of the potential periodicals for the creation of access to users, they could achieve their values that arise from the usage of the periodicals acquired. Such tools could reduce the barriers that limit access to periodicals collection (Gray, 2010). Thus, Mourad, Hussein, Kamoun and Watta (2019) posited that there are many tools available to evaluate accessibility of periodicals such as; Achecker tool, Ulrich's international periodical directory, guide to current British periodical, Sears list, new periodical title display, Online Public Access Catalogue (OPAC), Abstracts and directories, catalogue and Union catalogue.

(a) Accessibility checker tool and Accessibility of Periodicals

This tool achieves better in creating access to periodicals as it critically evaluates results other than other tools which can test all the conformance levels. It is a holistic tool (Fig. 2.4) used to access and evaluate the information content of a single periodical.

It provides a personalised assessment methodology, allowing users to select between different sets of accessibility guidelines. The problem is that it requires a management decision before access can be created to users



The screenshot shows the AChecker Web Accessibility Checker interface. At the top, there are links for 'Login' and 'Register'. The main header is 'Web Accessibility Checker' with the AChecker logo. Below the header, there is a section titled 'Check Accessibility By:' with three tabs: 'Web Page URL', 'HTML File Upload', and 'Paste HTML Markup'. The 'Web Page URL' tab is selected, showing an 'Address:' label and a text input field. Below the input field is a 'Check It' button. There is also a link for 'Options'.

Welcome to AChecker. This tool checks single HTML pages for conformance with accessibility standards to ensure the content can be accessed by

Fig. 2.4: Screen Image of Achecker Tool

(b) Ulrich's Periodicals Directory and Accessibility of Periodicals

This is a standard library directory and database providing information regarding common and educational magazines, scientific journals, newspapers and other serial publications.

ULRICHSWEB™
GLOBAL SERIALS DIRECTORY

--Select Language--

Search Workspace Ulrich's Update Admin

Please enter your Institutional Login credentials.

User Name:

Password:

[Log In](#)

[Forgot your password?](#)

For assistance, please contact [Ex Libris Support](#)

Fig 2.5 - Ulrich's Periodicals Directory

The directory in Fig 2.5 shows the basic steps required to gain access to the library database. Users of this directory are required to provide their usernames and passwords after they must have registered to access the institution library of their choice. It helps in the provision of titles and previous titles, starting date, place of publication, and publisher, availability of electronic versions, subscription terms, and approximate circulation as estimated by the publisher, subject information, searchable as subject terms or approximate Dewey Classification, special features, and indexing information, indications of whether the publication is available on open access and indication of whether the publication is peer-reviewed, which is taken to include professional magazines with equivalent editorial control of quality. This tool is mostly used by librarians (Wikipedia, 2019).

(c) Union Catalogue and Accessibility of Periodicals

It is a combined catalogue of holdings of books or periodicals or each mentioning location, edition, number of copies by accession numbers, volumes, etc. of varieties of consistent or heterogeneous collaborating libraries covering library materials in all fields

or restricted by subject or type of material organised by subject, or author or in a chronological order maintained by a National Library, large reference library or a national bibliographic centre.

Other in-house tools may include but not limited to the following:

- i. Installation of periodical racks wherever there is a change
- ii. Use of photocopier to duplicate issues
- iii. Space expansion and
- iv. Use of signs for newly acquired periodicals.

Ameen (2016) stated that periodicals are becoming very difficult to manage and this is causing a great concern to periodicals librarians and affirmed that periodicals can also be accessible to users using display rack, Current Awareness Services (CAS). He opined that an inquiry from staff and various strategies that can help in creating periodicals accessibility may include support from institutions to cover additional cost, guidance from professional bodies dealing with accessibility, guidance from accessibility specialist, guidance from colleagues experienced in accessibility creation, support from learning technologies and case studies of issues can help in making resources accessible. Access to the right periodicals is difficult because information contained in them are abundant, but users do not know whether it is available and where to locate it (Kumar, Singh and Yadave, 2011).

2.6 Use of Periodicals by Postgraduate Students in Libraries

Students of higher learning must be conversant with a variety of periodicals and tools that can help them get the information they need to conduct their seminars as well as in their research work. The library is a storehouse of information where periodicals in

different formats are kept for research activities (Okiki & Oyeniyi, 2019). According to Okiki and Oyeniyi (2019), the university library sources acquire, process, make visible and available information resources especially periodicals to achieve their aim of information delivery. It is, therefore, the responsibility of the university library to ensure that appropriate periodicals are selected based on the acquisition policy of the institution. Therefore, the librarians should make these periodicals visible and accessible to users (postgraduates).

Ashikuzzaman (2018) stated that periodicals are resources which require frequent access and delivers a collection of data, be it text referring to full-text bases or electronic journals (e-journals) and are basically divided into two major categories viz; online resources which include e-journals, online databases, and websites. Other may include CD-ROM, diskettes or other computer databases. Hadagali, Kumbar, Neglogal and Bachalapur (2012) investigated the use of electronic resources by postgraduate students in different universities of Karnataka State and found that the information contained in electronic journals is better than that of print versions; most of the users access electronic journals to search bibliographical information.

However, in using the periodicals, efforts should be made to ensure students obtain them. This is because information is critical for effective academic functioning. Adetoro (2011) noted that, useful, relevant and timely information is crucial for purposeful living and survival. Postgraduate students need information for their daily functioning as students, thus the extent to which relevant information is visible and accessible to students help determine their academic success. Furthermore, the extent to which people can utilise information from various sources will determine the usefulness

of information as a developmental resource. Students seek for periodicals collection for various purposes which could be to supplement coursework, complement other information resources, research work, writing assignments, finding specific information, extending knowledge, knowing current trends in research, understanding the key concepts and improving writing and reading skills.

Apart from the use of traditional periodicals such as journals, magazines and so on by students, there is also the widespread shift to electronic formats of periodicals which have enabled academic librarians to provide users with an ever-increasing scope and breadth of quality information (Colon-Aguirre & Fleming-May, 2012). With the use of both traditional and electronic information resources, students will be able to attain academic excellence but their ability to use the periodicals as well as the access gained from such use will determine their level of visibility of periodicals. This is because poor visibility and inaccessibility of these periodicals are responsible for non-usage among postgraduate students. Hence, librarians have an urgent role to play in providing access to periodicals.

Periodicals are valuable resources for study, learning, research and they offer advanced search capabilities to students in various formats and force them to learn how to find, select and use a variety of sources without the restriction of time and location. Asom, Suleiman and Kudus (2018) revealed in their study that most of the periodicals used by postgraduate students as identified, are online databases, electronic journal, CD-ROMs, electronic newspapers and magazines, and multimedia products were the kind of periodicals accessible to the postgraduate students except for Online Public Access Catalogue (OPAC) that was not accessible to the 88.9% of them. This indicates that

students depend on periodicals for current and up-to-date knowledge to enrich themselves and quality research output.

According to Ndubuisi and Udo (2013), in an empirical study of motivation, challenges and strategies in the use of electronic information resources by postgraduate library users in South-East, Nigerian Federal universities, postgraduate students were motivated to use periodicals collection in their libraries because they were found to be informative, easy to access and use, saved time, more useful and less expensive. Abubakar and Adetimirin (2017) carried out a study on the influence of user education on Postgraduate students' use of electronic resources in Nigerian University libraries. The result revealed that postgraduate students use electronic resources - electronic journals (38.2%), magazines (23.5%), databases (14.8%) and believe that it has a great influence on the quality of their research. Periodicals collection are becoming the dominant resources that contain the most recent information that takes place in the context of higher education (Al-Muomen, 2009). This high level of use is also as a result of their perception of ease and usefulness of electronic sources such as the web.

Pauline (2013) and Asom, et al (2018)'s findings indicated that postgraduate students of the universities under study were highly aware of all the listed periodicals in their study. These include electronic journals, CD-ROMs and electronic newspapers. Ahmed and Vinayagamoorthy's (2014) findings also indicated that the electronic format of almost all major periodicals were preferred for academic purposes to the printed resources by their respondents. Millawithanachchi (2012) conducted a case study on electronic resource usage of postgraduate students at the University of Columbo to investigate the critical success factors and identified technology as the most critical factor

affecting the use of periodicals. According to Radboud University Library (2019), searching, downloading, retrieval (copying), borrowing, reading, printing, referencing, etc, could be seen as an indication that collections of the library are being put to use. This idea is also in line with Olutoki and Osoba (2017) and Odede (2018) which opined that when students search, locate and browse information at the serials section and library websites, there is an indication that they are using information resources. The following are some of the usage of periodicals:

(a) Reading Periodicals

This is one of the important indicators of using periodicals. Reading refers to the ability to understand written words/information in periodical literature. According to McDonald (2012), reading could be in four different dimensions such as skimming, scanning, intensive and extensive. This means that the process of skimming, scanning, etc, is an indication that students are utilising periodicals to actualise their academic pursuits.

(b) Searching/Locating Periodicals

Search is the ability for a user to locate the right information. This can be based on a full-text or other content-based indexing. Library search allows users to search numbers of the information sources held by the library (Great Guide to University Study, 2017). According to Tomomowo-Ayodele and Hameed (2018), “in searching or locating any information resource, users need to adopt certain strategies to use such a resource”. (p. 10). Searching for information in periodicals is an activity that involves communicating with such a periodical source invariably being put to use. This is because

when users are dissatisfied with the results got from a particular search, it will be very difficult to revisit such information resources.

(c) Retrieving Periodicals

Periodicals can be retrieved or obtained after searching and locating them from the library shelves or websites. This is the process of obtaining the periodicals that are relevant to an information need from the collection of the library. Retrieval can be in the form of printing or downloading or borrowing. Okike and Oyeniyi (2019), observed that the “expectations of people are high when sourcing and retrieving information, hence frustration too is high when expectations are not met”. (p. 21). They suggested that for users to retrieve periodicals from the library, various access and retrieval tools must be available and visible at the quickest possible time.

(d) Downloading Periodicals

Download means to receive data from a connected system. It is a process of receiving a file from the website. Libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. They are extending services beyond the physical walls of a building, by providing materials accessible by electronic means, and by providing the assistance of librarians in navigating and analysing very large amounts of information with a variety of digital resources (Wikipedia, 2019). This means that periodicals with unrestricted access can be obtained using the Sci-hub, Lib-Gen, etc, in as much as the article has digital object identifier (DOI) or uniform resource locator (URL) is provided as shown in fig. 2.6. Sci-Hub is a website that provides free access to millions of scholarly articles by

downloading. In the case of print periodicals, users can photocopy them within the library premises as they are not usually loaned out of the section.

Fig. 2.6: Sci-Hub Tool



2.7 Acquisition, Visibility, Accessibility and Use of Periodicals in Libraries

Periodicals acquisition may be seen as the formation of routines and procedures for administering periodicals collection. Periodicals acquisition is cyclic from selection to circulation and record control. Thus, Priya and Majeed (2015) asserted that, university libraries need to understand their periodicals adoption from users' perspective to ensure that they are visible and accessible to their user community. The acquisition of periodicals is influenced by a number of individual factors such as trust from colleagues in terms of managing the fund allocated to the library for the acquisition of library resources and awareness of periodicals acquisition – this is because some staff in the library may not be aware of the need to manage periodicals in the area of visibility i.e. arranging them according to their distinctive nature, lack of benefit and which may decline the kind of services offered to users and the skill to communicate with the university scholars in the form of library users. This may either be favourable or unfavourable.

Fortes and Rita's (2016) study evidenced that, the attitude of librarians toward the acquisition of periodicals suffers the impact of diverse beliefs, which is positive in the case of trust, perceived usefulness and perceived ease of use. Technology plays a large role in many aspects of day-to-day life, and periodicals acquisition is not different. Technology is rapidly changing the way libraries acquire and display resources for use. Computers have replaced the stress of cataloguing as the online public access catalogue today. And it is not just happening in university libraries. The influence of technology on periodicals acquisition varies from one university library to another; therefore, librarians have to be very careful in analysing the periodicals of different titles due to increasing reliance on equipment.

From the online questionnaire developed by Ahmed (2013) to assess the extent of use of library resources subscribed by universities and the level of satisfaction of the users in Bangladesh, he concluded that users are not generally satisfied with the current level of university subscribed periodicals. However, the constraints he identified were mainly related to poor information technology infrastructure, difficulty in finding the required information, inability to access from home due to slow developmental speed and online access problems which in turn affect optimum use. Priya and Majeed (2015) conducted a study on serials management in libraries and noted that Librarians should also participate in the transition process by achieving skills and embracing the technological advancements to reap more from the scholarly world.

Three primary areas can have a significant effect on periodicals acquisition. Areas such as structure (the foundation of how the library is conducted i.e. the daily operation of the library), organisational leadership which has to do with the support of

the institution and culture (people within the library can go several directions to assess the organisation for perceived culture). Typically, factors from the inside and outside of the organisation (culture, motivation) can directly or indirectly influence the choice of periodicals to be acquired and determine factors that cause satisfaction or dissatisfaction of staff in a work environment and to better understand employee attitudes and motivation.

In terms of financial support, Akinbode and Nwalo (2017) hinted that, the acquisition of periodicals has not enjoyed corresponding attention from library managers as well as writers in the field of librarianship. This corroborates with the findings of Anunobi, Nwakwuo and Ezejiofor (2010) which revealed that periodicals are hinged on continual financial commitment and the problem facing the library is lack of financial support. University libraries have not been able to subscribe to overseas journals due to poor budgetary allocation, lack of qualified staff, and lack of incentives for workers and shortage of facilities which, according to Akinbode and Nwalo's (2017) finding, showed that facilities and services are provided in periodicals sections of the libraries, but are inadequate, which may have influence on effective acquisition of periodicals in the university library. It is, therefore, pertinent, to note at this point that periodicals cannot be made visible and accessible for users without the acquisition work of university librarians.

2.8 Appraisal of the Reviewed Literature

The literature reviewed has extensively dealt with a wide range of issues like acquisition of periodicals, visibility of periodicals in libraries, accessibility of periodicals in libraries and use of periodicals among postgraduate students.

In this review, the researcher presented a conceptual framework by Trice and Treacy (1986) but adapted the theoretical framework by Trice and Treacy (1986) on the utilisation of information system as a dependent variable in research for the study. The theory explained the influence of independent variables in any research with use of periodicals as a dependent variable. The framework was used in this study and applied to the acquisition, visibility, accessibility, and use of periodicals in Nigeria.

Periodicals are central to the success of a university library programme as they help to facilitate quality research and scholarly communication among users within and outside the university community. Although, several studies have explored the acquisition, visibility, accessibility and use of periodicals especially with reference to the Western World and other developed world, unfortunately, not much has been researched on in Nigeria and very little qualitative investigation has been done on acquisition, visibility, accessibility and use of periodicals among postgraduate students in Nigeria. This present research which explores the acquisition, visibility, accessibility and use of periodicals among Library and Information Science postgraduate students in Nigeria, will make significant contributions to literature by filling the perceived gap.

CHAPTER THREE

MATERIALS AND METHODS

This chapter discussed the materials and methods employed in this study. It is organised under the following sub-headings:

- 3.1 Research Design.
- 3.2 Population of the Study.
- 3.3 Sample and Sampling Technique
- 3.4 Research Instrument
- 3.5 Validity of the Research Instrument.
- 3.6 Reliability of the Research Instrument.
- 3.7 Method of Data Collection.
- 3.8 Method of Data Analysis.

3.1 Research Design

The study adopted a descriptive survey design. The choice of this design was based on the nature of the research problem (Creswell, 2014). As a result, the descriptive survey design was more appropriate. The purpose of descriptive survey design is to describe the current condition of an area of study. This design was adopted as it provides an accurate and genuine description of the situation without manipulation of the variables. Egbule (2003) stated that, “descriptive design provides the basis for the existing situation and present conditions through the systematic collection of facts and accurate information” (p. 8). It is, therefore, adopted for this study since it is concerned

with gathering data from the respondents using questionnaire. Hence, it was suitable for this study.

3.2 Population of the Study

The population for this study is 411 respondents which comprised of 404 postgraduate students and 7 serials librarians. The population was made up of Library and Information Science postgraduate students in federal university libraries in Nigeria which include the Kenneth Dike Library, University of Ibadan, Oyo State; University of Nigeria Library, Nsukka, Enugu State; Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra State; University of Calabar Library, Calabar, Cross River State; University of Uyo Library, Akwa-Ibom State; University of Ilorin Library, Ilorin, Kwara State and Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna State. A detail of the population distribution is presented in Table 2.

Table 2: Population of the Study

S/N	Names of University Libraries	Postgraduate Students	Acquisition/Serials Librarians	Total Population
1	Kenneth Dike Library, University of Ibadan, Oyo State	137	1	138
2	Nnamdi Azikiwe library, University of Nigeria Nsukka, Enugu State	52	1	53
3	Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra State	50	1	51
4	University of Calabar Library, Cross River State	36	1	37
5	University of Uyo Library, Akwa-Ibom State	42	1	43
6	The University of Ilorin Library, Ilorin, Kwara State	53	1	54
7	Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna	34	1	35
	Total	404	7	411

Postgraduate Admission List 2019/2020 Session of the Universities

3.3 Sample and Sampling Technique

The sample size of this study is 411 and this was done using total enumeration sampling technique. It is manageably small and can be accommodated in the study (Egbule, 2003). The entire population is therefore used as the sample.

3.4 Research Instrument

The instrument employed for the study was the questionnaire titled "Acquisition of periodicals in university libraries Questionnaire" (APULQ) and "Visibility, Accessibility and Use of periodicals among Library and Information Science Postgraduate Students Questionnaire" (VCULISPSQ). The instrument has been prepared for serials librarians and postgraduate students respectively. The instrument for serials librarians contained information on the acquisition of periodicals in libraries. The question consist of one section which dwelt on items on the acquisition of periodicals in libraries which was aimed at ascertaining the methods adopted for the acquisition of periodicals. This was measured on a nominal scale.

The instrument for postgraduate students also consists of three (3) sections. Section "A" focused on visibility of periodicals in libraries. The respondents were expected to tick the right option with respect to the tools used for the visibility of periodicals in their libraries and Section "C" was concerned with the use of periodicals, purposes and frequency of using periodicals. The items were rated on a nominal scale with two-point of Agree (A) and Disagree (D).

Section "B" dwelt on the accessibility of periodicals in libraries; Section "C" specified postgraduate students' usage pattern of periodicals. Items include usage of periodicals and frequency of using periodicals. The items were weighed on Likert-format: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) and Always Often, Sometimes and Rarely, respectively. This was used based on the range of 4,3,2,1. The instrument also contained an open ended section to enable the respondents give their personal view on the questionnaire item.

3.5 Validity of the Research Instrument

The validity of the instrument was done with the assistance of the researcher's supervisors and other lecturers in the Department of Library and Information Science in the Faculty of Education, Delta State University, Abraka. This was to help structure the instrument such that the variable (independent and dependent) were reflected in the final version of the questionnaire. This was scrutinised so as to ensure its face and content validity. The reason for this was to adequately cover the research questions raised and fully cover the content area that it should measure in terms of accuracy and truthfulness with respect to the variables.

3.6 Reliability of the Research Instrument

The instrument was administered to 30 Library and Information Science postgraduate students and 5 librarians of Federal University of Technology, Minna, Niger State, in order to estimate the reliability of the instrument. The data obtained were analysed with the use of Cronbach alpha reliability coefficient, which gives a measure of internal consistency. The analysis yielded the following coefficients: Section A: Acquisition of Periodicals yielded a coefficient of .76; Visibility of Periodicals in University Libraries yielded a coefficient of .87 on postgraduate students' questionnaire. Section B: Accessibility of Periodicals in Libraries had a coefficient of .80 and Section C: Postgraduate students' Use of Periodicals in Libraries yielded a coefficient of .92. Detailed computation of the result is presented in Appendix III on page 95.

Arising from the above reliability coefficients obtained, which are above .60, the researcher concluded that the instrument is reliable and therefore suitable for the study.

This conclusion was based on the recommendation of Pallant (2005). According to the author, the Cronbach alpha coefficient of a scale should be above .60.

3.7 Method of Data Collection

Copies of the questionnaire were administered by the researcher with the help of six research assistants, to the Library and Information Science postgraduate students and serials librarians. The questionnaire was administered on a one-to-one basis to the respondents in their departments and in the libraries under study, between the hours of 9:00 am and 4:00 pm daily for 3 weeks. The researcher instructed the six research assistants on the guidelines followed in the administration and collection of the questionnaire. The respondents were given 15-20 minutes to complete the questionnaire after which they were retrieved on the spot. This was to ensure a maximum response rate.

3.8 Method of Data Analysis

The data obtained from the respondents were analysed using both descriptive and inferential statistics. Frequencies were used to answer research questions 1 and 2; while the mean and standard deviation was employed to answer research questions 3 and 4. The criterion mean was placed at 2.50. Hypotheses 1 – 3 were tested using Pearson's Product Moment Correlation Co-efficient because it sought to know the influence of one independent variable on the dependent variable while multiple regression was used to test hypothesis 4 at 0.05 level of significance. This is because it required knowing the influence of more than independent variables on a dependent variable (visibility, accessibility and use of periodicals). All statistical analyses were carried out using SPSS (Statistical Package for Social Sciences) version 23.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION

The chapter presents the results and discussion of the findings in line with the research questions and hypotheses. This chapter is discussed under four sections. They are:

4.1 Questionnaire response rate

4.2 Answering of the research questions,

4.3 Testing of the hypotheses and

4.4 Discussion of the findings

4.1 Questionnaire Response Rate

This section showed the number of items distributed as well as the number retrieved and percentage rate.

Table 3: *Serials Librarians' Questionnaire Response Rate*

University Libraries	Number of Questionnaire Administered	Number of Questionnaire Returned	Percentage of Questionnaire Returned
Kenneth Dike Library, University of Ibadan, Oyo State	1	1	100
Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Enugu State	1	1	100
Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra State	1	1	100
University of Calabar Library, University of Calabar, Cross River State	1	1	100
University of Uyo Library, University of Uyo, Akwa-Ibom State	1	1	100
University of Ilorin Library, University of Ilorin, Kwara State	1	1	100
Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna State	1	1	100
Total	7	7	100

A total of 7 copies of the questionnaire were distributed to the serials librarians and 7 copies (100%) were returned. The response rate of 100% was considered adequate for the study because the standard and acceptable response rate for most studies is 60% (Dulle, Minish-Majanja & Cloete, 2010).

Table 4: *Postgraduate Students' Questionnaire Response Rate*

University Libraries	Number of Questionnaire Administered	Number of Questionnaire Returned	Percentage of Questionnaire Returned
Kenneth Dike Library, University of Ibadan, Oyo State	137	136	99
Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Enugu State	52	45	87
Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra State	50	50	100
University of Calabar Library, University of Calabar, Cross River State	36	36	100
University of Uyo Library, University of Uyo, Akwa-Ibom State	42	38	90
University of Ilorin Library, University of Ilorin, Kwara State	53	52	98
Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna State	34	31	91
Total	404	388	96

A total of 404 copies of the questionnaire for students were distributed and 388 copies (96%) were returned. The response rates of 96% was considered adequate for the

study because the standard and acceptable response rate for most studies is 60% (Dulle, Minish-Majanja & Cloete, 2010).

4.2 Answering of the Research Questions

This section provides answers to the research questions earlier raised in chapter one of the study. The results are presented in Tables 4 to 7

Research Question One: What methods of acquisition of periodicals are adopted in federal university libraries in Nigeria?

Table 4: *Methods of Acquisition of Periodicals in federal university libraries*

Methods of Acquisition of periodicals	Agree		Disagree		Total	
	No.	%	No.	%	No.	%
Purchase :						
Vendor	7	100	0	0.0	7	100.0
Book store	7	100	0	0.0	7	100.0
Aggregator for electronic periodicals	7	100	0	0.0	7	100.0
Newsagents						
Subscription:						
Publishers	6	85.7	1	14.3	7	100.0
Consortia						
Journal databases						
Gift/Donation:						
Tertiary Education Trust Fund (TETFUND)	7	100	0	0.0	7	100.0
Philanthropist	7	100	0	0.0	7	100.0
Patron-driven acquisition	7	100	0	0.0	7	100.0

Table 4 revealed that the methods of acquisition of periodicals adopted by serials librarians in federal university libraries in Nigeria are through purchase: vendor, book store, aggregator for electronic periodicals 7(100%) respectively, and Newsagents 6(85.7%). Through subscription: publisher, consortia and journal databases 7(100%)

respectively. Through gift/donation: Tertiary Education Trust Fund (TETFUND) and philanthropist 7(100%) respectively and through Patron-driven acquisition 7(100%). Therefore, it can be affirmed that the methods of acquisition of periodicals adopted by acquisition/serials librarians in federal university libraries in Nigeria are: purchase from vendor, book store, aggregator for electronic periodicals, newsagents, subscription from publisher, consortia, journal databases, gift/donation from Tertiary Education Trust Fund (TETFUND), philanthropist and through patron-driven acquisition.

Research Question Two: What are the tools used for the visibility of periodicals in the university libraries?

Table 5: *Tools used for visibility of periodicals in federal university libraries*

Visibility of periodicals	Agree		Disagree		Total	
	No.	%	No.	%	No.	%
Electronic format:						
Institutional repository	307	79.1	81	20.9	388	100.0
Self-archiving	283	72.9	105	27.1	388	100.0
Bibliometrics	258	66.5	130	33.5	388	100.0
Consortia search engine	229	59.0	159	41.0	388	100.0
Social networking tools like blog, etc	278	71.6	110	28.4	388	100.0
Print format:						
Display rack	314	80.9	74	19.1	388	100.0
Catalogue	340	87.6	48	12.4	388	100.0
Periodical stand	338	87.1	50	12.9		

Table 5 showed that the tools used for the visibility of periodicals in the university libraries are electronic format- institutional repository 307(79.1%), self-archiving 283(72.9), social networking tools like blog, etc. 278(71.6%), bibliometrics 258(66.5%) and consortia search engine 228(59.0%). For the print format, they include catalogue 340(87.6%), periodical stand 338(87.1%) and display rack 314(80.9%). This result showed that the systems viable for the visibility of periodicals in the university libraries are in both electronic and print formats.

Research Question Three: How do postgraduate students access periodicals in the university libraries?

Table 6: *Access to periodicals among postgraduate student in university libraries*

Items	SA		A		D		SD		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Print formats:										
Accessibility by using :										
Subjects	284	73.2	99	25.5	4	1.0	1	0.3	388	100.0
Title	260	67.0	114	29.4	11	2.8	3	0.8	388	100.0
Author	234	60.3	115	29.6	35	9.0	4	1.0	388	100.0
International standards serial number (ISSN)	234	60.3	115	29.6	35	9.0	4	1.0	388	100.0
Date of Publication	115	29.6	149	38.4	104	26.8	20	5.2	388	100.0
Publisher	187	48.2	141	36.3	48	12.4	12	3.1	388	100.0
Class Marks	175	45.1	123	31.7	67	17.3	23	5.9	388	100.0
Electronic formats:										
Accessibility by using:										
Keywords	160	41.2	118	30.4	84	21.6	26	6.7	388	100.0
Title	270	69.9	93	24.0	19	4.9	6	1.5	388	100.0
Author's name	262	67.5	108	27.8	14	3.6	4	1.0	388	100.0
Username/password	202	52.1	141	36.3	42	10.8	3	0.8	388	100.0
Uniform resource locator(url)/digital	127	69.9	130	33.5	103	26.5	28	7.2	388	100.0
object identifier (doi)	127	32.7	138	35.6	79	20.4	44	11.3	388	100.0

From Table 6, the postgraduate students strongly agreed that they have access to print periodicals in the university libraries by subjects 284(73.2%), title 260(67%), author 234(60.3%), date of publication 187(48.8%), publisher 175(45.1%), class marks 160(41.2%), while 149(%) of them agreed to have access to International standards serial number (ISSN). Under electronic format, 270(69.69%) of them strongly agreed to have

access to keywords, title 262(52.1), author's name 202(52.1%), while 127(32.7%) respectively agreed to have access to the periodicals through username/password and uniform resource locator (url)/digital object identifier (doi). Therefore, the postgraduate students have access to both print and electronic periodicals in the university libraries through subjects, titles, authors, dates of publication, publisher, class marks, International standards serial number (ISSN), username/password and uniform resource locator (url)/digital object identifier (doi).

Research Question Four: How do postgraduate students use periodicals in the university libraries?

Table 7: *Use of Periodicals among Postgraduate Students*

Use of Periodicals by	SA	A	D	SD	Mean	STD
Searching for a particular information	232	144	9	3	3.56	.58
Locating multiple sources from periodical	184	165	30	9	3.35	.72
Downloading from open access/databases	200	143	32	13	3.37	.77
Retrieving periodicals from other websites	164	167	45	12	3.24	.78
Reading in the library/on-screen reading	169	160	49	10	3.26	.78
Printing/photocopying periodicals	166	175	35	12	3.28	.75
Creating an optional account on the library homepage	119	112	100	57	2.76	1.04
Aggregate Mean/SD					3.26	.51
Criterion Mean					2.50	

From Table 7, with an aggregate mean of 3.26(Std. = 0.51) which is greater than the criterion mean of 2.50, this implies that the postgraduate students' usage of periodicals is high. Specifically, their usage include searching for information (mean= 3.56), downloading from one access/databases (mean= 3.37), locating multiple sources from periodicals (mean= 3.35), printing/photocopying periodicals (mean= 3.28), reading

in the library/on-screen reading (mean= 3.26), retrieving periodicals from other websites (mean= 3.24) and creating an optional account on the library homepage (mean= 2.76).

Table 7.1: *Frequency of Using Periodicals*

Frequency of Using Periodicals	Always	Often	Sometimes	Rarely	Mean	STD.
Print format:						
Journals	219	109	46	14	3.37	.83
Magazines	150	162	61	15	3.15	.82
Newspapers	167	135	65	21	3.15	.89
Newsletters	150	115	73	50	2.94	1.04
Proceedings	123	129	87	49	2.84	1.01
Bulletins	126	137	74	51	2.87	1.01
Electronic formats:						
Electronic journals	227	78	45	38	3.27	1.01
Electronic magazines	200	93	50	45	3.15	1.04
Electronic newspapers	195	89	61	43	3.12	1.04
Electronic newsletters	169	82	65	72	2.90	1.16
Aggregate Mean/SD					3.08	.74
Criterion Mean					2.50	

Table 7.1 shows an aggregate mean of 3.08(Std. = 0.74) which is greater than the criterion mean of 2.50, this finding suggests that the postgraduate students' frequency of using periodicals is high. Majority of them indicated that they always and often use both print and electronic periodicals.

Table 7.2: Purpose for Using Periodicals

Purpose for Using Periodicals	Agree		Disagree		Total	
	No.	%	No.	%	No.	%
Purpose for Using Periodicals						
For scholarly communication	361	93.0	27	7.0	388	100.0
For evidence of claims	296	76.3	92	23.7	388	100.0
For current awareness	330	85.1	58	14.9	388	100.0
For information on local issues	300	77.3	88	22.7	388	100.0
For reading a wealth of knowledge	337	86.9	51	13.1	388	100.0
For political ideology stance	233	60.1	155	39.9	388	100.0
For entertainment	248	63.9	140	36.1	388	100.0
For a job advertisement	256	66.0	132	34.0	388	100.0
For bibliographic details	284	73.2	104	26.8	388	100.0
For in-depth knowledge	334	86.1	54	13.9	388	100.0
As a presentation solution	331	85.3	57	14.7	388	100.0
For research options	337	86.9	51	13.1	388	100.0

Table 7.2 shows the purpose of using periodicals. Some of the reasons as indicated by the postgraduate students are for scholarly communication-361(93%), reading a wealth of knowledge and research options-337(86.9%) respectively, in-depth knowledge- 334(86.1%), as a presentation solution in the university libraries- 331(85.3%) and information on local issues-300(77.3%). Therefore, the reasons for the use of periodicals among postgraduate students include for scholarly communication, reading a wealth of knowledge, research options, in-depth knowledge, as a presentation solution in the university libraries and information on local issues.

4.3 Testing of the Research Hypotheses

This section is concerned with the hypotheses that were formulated earlier in chapter one of the study. The results are presented in Tables 8 to 12.

H₀₁: There is no significant relationship between visibility and use of periodicals among postgraduate students in the university libraries.

Table 8: *Relationship between visibility and use of periodicals*

		Visibility of Periodicals in University Libraries	Use of Periodicals
Visibility of Periodicals in University Libraries	Pearson Correlation	1	.210**
	Sig. (2-tailed)		.000
	N	388	388
Use of Periodicals	Pearson Correlation	.210**	1
	Sig. (2-tailed)	.000	388
	N	388	

Level of significance = 0.05

From Table 8, Pearson's Product Moment Correlation Coefficient r (=0.210). Since the significant value (Sig.2-tailed) is 0.000 (which is less than 0.05), this implies that there is a significant relationship between visibility and postgraduate students' use of periodicals. The null hypothesis is therefore rejected, implying that visibility may lead to increase in the use of periodicals by the postgraduate students.

H₀₂: There is no significant relationship between accessibility and use of periodicals among postgraduate students in the university libraries.

Table 9: *Relationship between accessibility and use of periodicals*

		Accessibili ty of Periodicals in Libraries	Use of Periodicals
Accessibility of Periodicals in Libraries	Pearson	1	.256
	Correlation		
Use of Periodicals	Sig. (2-tailed)		.000
	N	388	388
	Pearson	.256	1
	Correlation		
	Sig. (2-tailed)	.000	388
	N	388	

Level of significance = 0.05

From Table 9, Pearson Product Moment correlation coefficient $r (=0.256)$. Since the significant value (Sig.2-tailed) is 0.000 (which is less than 0.05), it can be concluded that there is a significant relationship between accessibility and postgraduate students' use of periodicals. The null hypothesis is therefore rejected, implying that an increase in access to the periodicals, may lead increase in the use of periodicals by the postgraduate students.

H₀₃: There is no significant relationship among visibility, accessibility and use of periodicals among postgraduate students in the university libraries.

Table 10: *Model Summary Table of Relationship among visibility, accessibility and use of periodicals among postgraduate students*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.300 ^a	.090	.085	.70534

a. Predictors: (Constant), Accessibility of Periodicals in Libraries , Visibility of Periodicals in University Libraries

Table 11: *ANOVA Summary Table of Relationship among visibility, accessibility and use of periodicals among postgraduate students*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.965	2	9.483	19.060	.000 ^b
	Residual	191.539	385	.498		
	Total	210.504	387			

a. Dependent Variable: Frequency of Using Periodicals

b. Predictors: (Constant), Accessibility of Periodicals in Libraries , Visibility of Periodicals in University Libraries

Table 12: *Coefficient Summary Table of Relationship among visibility, accessibility and use of periodicals among postgraduate students*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.897	.360		2.494	.013
	Visibility of Periodicals in University Libraries	.542	.168	.161	3.234	.001
	Accessibility of Periodicals in Libraries	.371	.084	.220	4.419	.000

a. Dependent Variable: Frequency of Using Periodicals

From Table 10, 11 and 12, the result of the regression indicated the two predictors explained 9% of the variance ($R^2 = 0.090$, $F(2,385) = 19.606$, $p = 0.000$). Visibility of periodicals ($\beta=0.001$) while accessibility of periodicals ($\beta=0.000$) implying that the 9% variance was caused by the independent variables. Therefore the remaining 91% may be as a result of chance or other variables not accounted for in this study. The null hypothesis is therefore rejected, implying that both visibility and accessibility of periodicals may jointly influence the postgraduate students' use of the periodicals.

4.4 Discussion of the Findings

This section discussed the various findings from the study, relating them to the aim of the study and research questions which the study sought to answer, as well as other previous works discussed earlier in chapter two.

Methods adopted for the acquisition of periodicals

The findings revealed that the methods adopted for the acquisition of periodicals in federal university libraries in Nigeria are mostly through purchase: vendor, book store, aggregator for electronic periodicals respectively, subscription: publisher, consortia and journal databases respectively, gift/donation: Tertiary Education Trust Fund (TETFUND), philanthropist and patron-driven. However, newsagent was regarded less. Therefore, if periodicals are acquired through these methods, it should get more financial support and commitment from their parent institutions.

The respondents, during the administration, revealed that periodicals are mostly acquired through purchase, subscription and gift/donation from Tertiary Education Trust Fund (TETFUND). Okpokwasili and Blakes (2014) also acknowledged that periodicals are acquired through these methods. They postulated that the methods adopted for the acquisition of periodicals are through direct purchase, subscription, consortia and patron-driven. This idea is further supported by Aghadiuno, Agbo and Onyekwediri's (2015) finding that "purchase, consortia and subscription are the methods of acquiring periodicals" (p. 8). The researcher is of the view that librarians should be critical in acquiring periodicals especially in this era where postgraduate students are more proactive in getting information at their fingertip without going to the four-walls of the library.

Visibility of periodicals in the university libraries

The finding revealed that the tools used for the visibility of periodicals in federal university libraries are electronic format- institutional repository, self-archiving, social networking tools like blog, etc., bibliometrics and consortia search engine. For the print format, they include catalogue, periodical stand and display rack. This finding is at variance with the one of Islam (2013) which found that university libraries in developing countries are faced with the problem of poor visibility of intellectual contents. This is the situation in some developing countries and that of Nigeria are not the same. These studies were carried out in two different environments, and also, the visibility of periodicals in these places may vary according to the various tools put in place.

Surprisingly, even the postgraduate students of Library and Information Science voiced the need for more visibility tools to use periodicals; a need is also stressed by majority of postgraduate students of other disciplines. This implies that more visibility tools which may be related to other disciplines should be created to enable usage across disciplines. It would not be a surprise due to the ease of use of periodicals. The findings about the visibility of periodicals are in consonance with that of Lor (2016) which found that, when periodicals are obscured and obtrusive, not much attention will be paid to their contents.

Accessibility of periodicals in the university libraries

The finding strongly implied that postgraduate students in federal university libraries in Nigeria can access periodicals by using subjects, and title for the print format while they access periodicals by using keywords and title for the electronic format. This finding supported that of Ram (2015) which found that “student can gain access to vast amount of information provided the accessibility aids are put in place” (p .2). It is also in line with Gruszczynka’s (2012) finding, which affirmed that accessibility should be embedded within an institution policy that focuses on current information to ensure access which could be with the use of keywords, subject, title, etc.

In the researcher’s view, the most compelling explanation for this present set of finding is that the postgraduate students have difficulty in accessing periodicals with the use of International Standard Serial Number, username/password and uniform resource locator respectively. This might be due to their inadequate knowledge to navigate the library/library website to know the necessary accessibility aids to access periodicals. However, at home, students have limited access to periodicals, most of which are Internet-based (database) which may require rigorous steps to carry out before access is granted. This finding has implication on serials librarians, suggesting that they should consider providing more accessibility aids for students to enable them make qualitative use of periodicals which are painstakingly acquired with the meagre allocated funds.

Use of Periodicals by Postgraduate students in the university libraries

One interesting and important finding was the use of periodicals by postgraduate students which was determined using some indicators, frequency and purpose of using periodicals. The result revealed that the Use of periodicals by postgraduate students is high. This study identified that during their interaction with periodicals such as searching for information, downloading from open access/databases and locating multiple sources from periodicals they are using periodicals.

According to Olutoki and Osoba (2017), a majority of the postgraduate students responded that when they search, browse and locate needed periodicals at the serials section, they are using periodicals particularly during their interaction. This is a vital discovery, placing students at the focal point of information provision. This finding is in support of Odede's (2018) which found that "an indication that postgraduate students use information resources greatly determined their ability to browse library online databases" (p.155). Also, retrieving 3.24(0.78), reading 3.26(0.78), printing and creating optional account on the library homepage are other indicators of using periodicals as noted by the respondents.

The result also showed the frequency at which postgraduate students use periodicals in the library. The finding revealed that their frequency of using various periodicals (journals, electronic journal and electronic magazine) is high as the majority of the students indicated that they use both print and electronic periodicals and the purpose of using them are for scholarly communication, for reading a wealth of knowledge and for information in local issues. This result concurred with an earlier study

conducted by Rao and Reddy (2018) which revealed that students use periodicals because they facilitate what is known as scholarly communication.

Relationship between visibility and use of periodicals in the university libraries

The result of hypothesis one showed that there is a relationship between visibility and use of periodicals because postgraduate students are inclined to make use of periodicals that are visible to them to actualise their aims. This finding is in support of Claartje, Hoeven, Stohl, Leonard and Stohl's (2019) which found that periodical visibility will translate into high level of use of periodicals. This implies that visibility raises the hope that periodicals will be used among postgraduate students.

Relationship between accessibility and use of periodicals in the university libraries

The result of hypothesis two showed that there is a relationship between accessibility and use of periodicals because when periodicals are accessible using the various aids, they are invariably put to use to conduct research and other purposes. This finding conforms to Eiriemiokhale and Ibeun (2017) which noted that "the more accessible periodicals are, the more likely they will be used" (p. 2). It also corroborates Agatha's (2018) suggestion that institutions benefit from open access through high usage of their periodicals and other information resources.

Establish the relationship among visibility, accessibility, and use of periodicals among the postgraduate students in the university libraries

The result of hypothesis three showed that there is a strong relationship among visibility, accessibility and use of periodicals which implies that both visibility and

accessibility may lead to postgraduate students' use of periodicals. This finding is in contrast with Christian (2012) and Gillum and Williams' (2019) which found that postgraduate students are faced with the problem of poor visibility and accessibility to subject based periodicals which may affect their usage. This may be because federal university libraries in Nigeria have improved on the various tools viable for the visibility and accessibility of periodicals coupled with the intervention of Tertiary Education Trust Fund in meeting the information needs of students generally. Since the relationship is significant, there is need to check the co-efficient of determination (r^2). The co-efficient of determination (r^2) is 0.9. This means that 9% of change in the dependent variable (Use of periodicals) was accounted for by the independent variables (visibility and accessibility). Therefore, 91% of change in use of periodicals was accounted for by other variables other than visibility and accessibility.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter focused on the summary of the study, conclusion, recommendations and contributions to knowledge

5.1 Summary of the study

The study investigated acquisition, visibility, accessibility and use of periodicals among Library and Information Science Postgraduate Students in federal university libraries in Nigeria. The population of the study consist of 411 respondents drawn from seven federal university libraries in Nigeria which comprised of five federal university libraries in the Southern part and two federal university libraries in the Northern part of Nigeria. In the study, four research questions were raised and answered, while three research hypotheses were formulated and tested at 0.05 level of significance.

The literature was reviewed in line with the research questions. The 411 copies of the questionnaires administered to the respondents and 388 copies were retrieved which were found usable. The data collected were analyzed using descriptive statistics, frequency counts, mean and standard deviation while the Pearson Product Moment Correlation Coefficient was used to test hypotheses 1 and 2 while multiple regression was used to test hypothesis 3.

The findings from the study showed that:

- i. The methods adopted for the acquisition of periodicals in federal university libraries are purchase, subscription, gift/donation and patron-driven.
- ii. The tools used for the visibility of periodicals are institutional repository, self-archiving for the electronic format while for the print formats are catalogue and periodical stand.
- iii. Periodicals are accessed by using subject, title and keywords
- iv. Postgraduate students use periodicals by searching for information, downloading from open access/databases and locating periodical from multiple sources.
- v. There is a significant relationship between visibility and use of periodicals among postgraduate students.
- vi. There is a significant relationship between accessibility and use of periodicals among postgraduate students.
- vii. There is a significant relationship among visibility, accessibility and use of periodicals among postgraduate students

5.2 Conclusion

This study investigated acquisition, visibility, accessibility and use of periodicals among Library and Information Science postgraduate students in federal university libraries. The study is of paramount importance due to students' yearn for current and up-to-date knowledge to actualise their academic and personal aims. The study concluded that periodicals are acquired using various methods which made them more visible and accessible to postgraduate students to use for a qualitative research and other purposes. Though it is not possible to acquire all types of periodicals, proper and adequate visibility and accessibility tools will help students to use them. It also

highlighted various methods of periodicals acquisition such as purchase, subscription and patron-driven. This study has shown that periodicals in some university libraries are acquired using various methods, made visible and accessible to users but are not fully implemented due to some militating factors such epileptic power supply, lack of storage space and facilities but then can be enhanced if the recommendations in this study are implemented and sustained accordingly.

5.3 Recommendations

In the light of the findings of this study, the following recommendations were made:

- i. Serials librarians should maintain and sustain the methods of acquisition adopted to enhance usage of periodicals. This can be done by attending workshops, seminars and conferences.
- ii. Attention of library administration in federal university libraries should be drawn to the urgent need of visibility and accessibility tools to improve on the use of periodicals by postgraduate students which can be achieved by introducing user education kits which could be during their orientation programme.
- iii. Efforts should be made by serials librarians to augment print and electronic periodicals for use by postgraduate students.

5.4 Contributions to Knowledge

This study has contributed to the body of existing knowledge in the following ways:

- i. It established that purchase, subscription and patron-driven were the methods adopted for the acquisition of periodicals in federal university libraries in Nigeria
- ii. The study has shown that institutional repository, self-archiving, catalogue and periodical stand were the various tools used for the visibility of periodicals and periodicals are accessed with the use of subject, title and keywords in federal university libraries.
- iii. The study has exposed the various indicators to the use of periodicals such as searching downloading, etc in federal university libraries.
- iv. It has proven that visibility and accessibility had an influence on the use of periodicals among postgraduate students in federal university libraries.

5.5 Suggestions for Further Study

Based on the outcome of this study, the researcher suggested that further studies should be conducted in the following areas:

- i. This study should be replicated using other categories of students in Federal University libraries in Nigeria.
- ii. A comparative study of the use of periodicals among postgraduate students of other disciplines in state and private university libraries in Nigeria.
- iii. Other factors that account for the use of periodicals among students.

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APPENDIX I
QUESTIONNAIRE FOR ACQUISITION/SERIAL LIBRARIANS

Department of Library and Information
Science,
Delta State University,
P.M.B. 1, Abraka,
Delta State
11/02/2020

Dear Respondent,

**Questionnaire for Collecting Data on Acquisition, Visibility, Accessibility and Use
of Periodicals among Library and Information Science Postgraduate Students in
Federal University Libraries in Nigeria**

My name is Ishioma Azonobi. I am a Ph.D. student at Delta State University, Abraka. I wish to invite you to participate in a study titled: Acquisition, Visibility, Accessibility, and Use of periodicals among Library and Information Science Postgraduate Students in Federal University Libraries in Nigeria

The research study is undertaken as part of the requirements for a PhD in Library Science programme at Delta State University.

Please kindly complete the questionnaire as accurately as possible; your response is strictly for study and will be kept confidential.

Thank you.

Yours Faithfully,

Ishioma N. Azonobi

Section A: Acquisition of Periodicals

Please indicate your level of agreement or disagreement by a tick (✓) on the method you adopt for the acquisition of periodicals in your library

Agree (A); Disagree (D)

Methods	A	D
Purchase:		
Vendor		
Book store		
Aggregator for electronic periodicals		
Newsagents		
Subscription:		
Publishers		
Consortia		
Journal Databases		
Gift/Donation:		
Tertiary Education Trust Fund (TETFUND)		
Philanthropist		
Patron-driven acquisition		

APPENDIX II
Questionnaire for Postgraduate Students

Department of Library and Information
Science,
Delta State University,
P.M.B. 1, Abraka,
Delta State
11/02/2020

Dear Respondent,

**Questionnaire for Collecting Data on Acquisition, Visibility, Accessibility and Use
of Periodicals among Library and Information Science Postgraduate Students in
Federal University Libraries in Nigeria**

My name is Ishioma Azonobi. I am a Ph.D. student at Delta State University, Abraka. I wish to invite you to participate in a study titled: Acquisition, Visibility, Accessibility, and Use of periodicals among Library and Information Science Postgraduate Students in Federal University Libraries in Nigeria

The research study is undertaken as part of the requirements for a PhD in Library Science programme at Delta State University.

Please kindly complete the questionnaire as accurately as possible; your response is strictly for study and will be kept confidential.

Thank you.

Yours Faithfully,

Ishioma N. Azonobi

SECTION A: Visibility of Periodicals in University Libraries

Please indicate your level of agreement or disagreement by a tick (✓) on the system viable for the visibility of periodicals in your library

Visibility of periodicals	Agree	Disagree
Electronic format:		
Institutional repository		
Self-archiving		
Bibliometrics		
Consortia search engine		
Social networking tools like blog, etc		
Print format:		
Display rack		
Catalogue		
Periodical stand		

Others, please specify

Section B: Accessibility of Periodicals in Libraries

Please indicate your level of agreement or disagreement by a tick (✓) on how you access periodicals.

Strongly Agree (SA), Agree (A) Disagree (D), Strongly Disagree (SD)

Items	SA	A	D	SD
Print formats:				
Accessibility by using :				
Subjects				
Title				
Author				
International standards serial number (ISSN)				
Date of Publication				
Publisher				
Class Marks				
Electronic formats:				
Accessibility by using:				
Keywords				
Title				
Author's name				
Username/password				
Uniform resource locator(url)/digital object identifier (doi)				

Others, please specify

Section C: Postgraduate students' usage pattern of periodicals in libraries

Please indicate your level of agreement or disagreement by a tick (✓) on your usage of periodicals

Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD)

Items	SA	A	D	SD
Usage of periodicals by:				
Searching for a particular information				
Locating multiple sources from periodical				
Downloading from open access/databases				
Retrieving periodicals from other websites				
Reading in the library/on-screen reading				
Printing/photocopying periodicals				
Creating an optional account on the library homepage				

Others, please specify

Frequency of using periodicals

Please indicate your frequency of using periodicals in your library

Frequency of using periodicals	Always	Often	Sometimes	Rarely
Print format:				
Journals				
Magazines				
Newspapers				
Newsletters				
Proceedings				
Bulletins				
Electronic formats:				
Electronic journals				
Electronic magazines				
Electronic newspapers				
Electronic newsletters				

Others, please specify

Purpose for using periodicals

Please indicate your level of agreement or disagreement by a tick (✓) on your purpose of using periodicals

Agree (A) Disagree (D)

Purposes	A	D
For scholarly communication		
For evidence of claims		
For current awareness		
For information on local issues		
For reading a wealth of knowledge		
For political ideology stance		
For entertainment		
For a job advertisement		
For bibliographic details		
For in-depth knowledge		
As a presentation solution		
For research options		

Others, please specify

APPENDIX III

Detailed Computation of Coefficient of Reliability (Using Cronbach's Alpha coefficient measurement) Serials Librarians' Copy

Reliability

Scale: Acquisition of Periodicals

Case Processing Summary

	N	%
--	---	---

Cases	Valid	5	100.0
	Excluded ^a	0	.0
	Total	5	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.762	.768	12

Reliability

Scale: Visibility of Periodicals

Case Processing Summary

	N	%
Cases Valid	5	100.0
Excluded ^a	0	.0
Total	5	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.835	.811	18

Reliability

Scale: Accessibility of Periodicals

Case Processing Summary

	N	%
Cases Valid	5	100.0
Excluded ^a	0	.0
Total	5	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.799	.762	6

**Detailed Computation of Coefficient of Reliability (Using Cronbach's Alpha
coefficient measurement) Postgraduate Students' Copy**

Reliability

Scale: Visibility in of Periodicals in University Libraries

Case Processing Summary

	N	%
Cases Valid	30	100.0
Excluded ^a	0	.0
Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.867	.868	10

Reliability

Scale: Accessibility of Periodicals in Libraries

Case Processing Summary

	N	%
Cases Valid	30	100.0
Excluded ^a	0	.0
Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.796	.794	12

Reliability**Scale: Postgraduate Students' Usage Pattern of Periodicals in Libraries****Case Processing Summary**

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

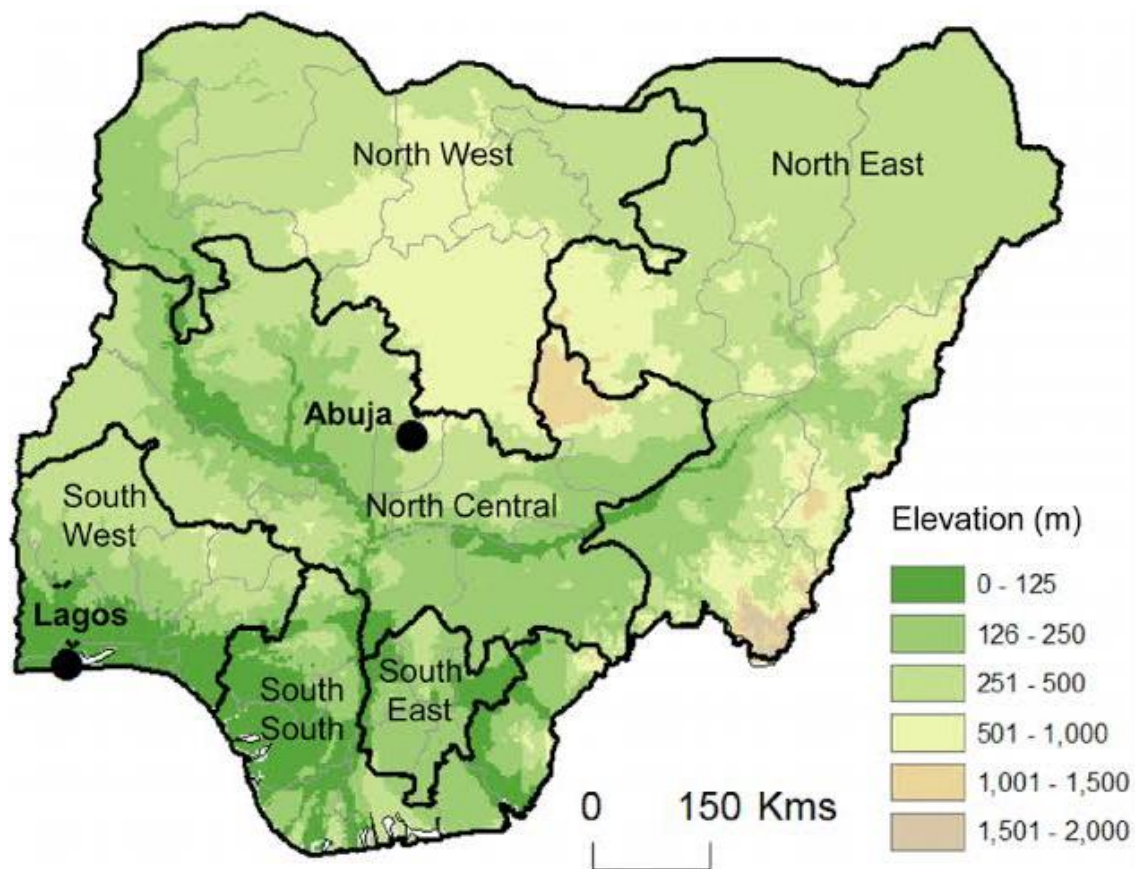
a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.916	.918	29

APPENDIX IV

Map of Nigeria showing the Geopolitical Zones under Study



APPENDIX V

SPSS OUTPUT

GET

FILE='C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

FREQUENCIES VARIABLES=VAR00001

/NTILES=4

/ORDER=ANALYSIS.

Frequencies

		Notes
Output Created		17-APR-2021 01:03:57
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00001 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav

Statistics

Name of University Libraries

N	Valid	388
	Missing	0
Percentiles	25	1.00
	50	3.00
	75	5.00

Name of University Libraries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kenneth Dike Library, University of Ibadan, Oyo state	136	35.1	35.1	35.1

The University of Ilorin Library, Ilorin, Kwara state	52	13.4	13.4	48.5
Festus Aghagbo Nwako Library, Nnamdi Azikiwe University, Awka, Anambra state	50	12.9	12.9	61.3
Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Enugu state	45	11.6	11.6	72.9
Kashim Ibrahim Library, Ahmadu Bello University, Zaria, Kaduna	31	8.0	8.0	80.9
University of Uyo Library, Akwa-Ibom state	38	9.8	9.8	90.7
University of Calabar Library, Cross River state	36	9.3	9.3	100.0
Total	388	100.0	100.0	

FREQUENCIES VARIABLES=VAR00002 VAR00003 VAR00004 VAR00005 VAR00006 VAR00007 VAR00008 VAR00009

/NTILES=4

/ORDER=ANALYSIS.

Frequencies

Notes

Output Created		17-APR-2021 02:02:33
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00002 VAR00003 VAR00004 VAR00005 VAR00006 VAR00007 VAR00008 VAR00009 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Statistics

	Institutional repository	Self-archiving	Bibliometrics	Consortia search engine	Social networking tools like blog, etc			
--	--------------------------	----------------	---------------	-------------------------	--	--	--	--

N	Valid	388	388	388	388	388			
	Missing	0	0	0	0	0			
Percentiles	25	2.00	1.00	1.00	1.00	1.00			
	50	2.00	2.00	2.00	2.00	2.00			
	75	2.00	2.00	2.00	2.00	2.00			

Statistics

		Display rack	Catalogue	Periodical stand
N	Valid	388	388	388
	Missing	0	0	0
Percentiles	25	2.00	2.00	2.00
	50	2.00	2.00	2.00
	75	2.00	2.00	2.00

Frequency Table

Institutional repository

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	81	20.9	20.9	20.9
	Agree	307	79.1	79.1	100.0
	Total	388	100.0	100.0	

Self-archiving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	105	27.1	27.1	27.1
	Agree	283	72.9	72.9	100.0
	Total	388	100.0	100.0	

Bibliometrics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	130	33.5	33.5	33.5
	Agree	258	66.5	66.5	100.0
	Total	388	100.0	100.0	

Consortia search engine

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	159	41.0	41.0	41.0
	Agree	229	59.0	59.0	100.0
	Total	388	100.0	100.0	

Social networking tools like blog, etc

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	110	28.4	28.4	28.4
	Agree	278	71.6	71.6	100.0
	Total	388	100.0	100.0	

Display rack

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	74	19.1	19.1	19.1
	Agree	314	80.9	80.9	100.0
	Total	388	100.0	100.0	

Catalogue

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	48	12.4	12.4	12.4
	Agree	340	87.6	87.6	100.0
	Total	388	100.0	100.0	

Periodical stand

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	50	12.9	12.9	12.9
	Agree	338	87.1	87.1	100.0
	Total	388	100.0	100.0	

GET

FILE='C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

FREQUENCIES VARIABLES=VAR00011 VAR00012 VAR00013 VAR00014 VAR00015 VAR00016 VAR00017 VAR00018

VAR00019 VAR00020 VAR00021 VAR00022

/NTILES=4

/ORDER=ANALYSIS.

Frequencies

Notes

Output Created		17-APR-2021 15:43:00
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00011 VAR00012 VAR00013 VAR00014 VAR00015 VAR00016 VAR00017 VAR00018 VAR00019 VAR00020 VAR00021 VAR00022 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS
RESULTS\Azonobi Ph.D Data.sav

Statistics

		Subj ects	Title	Auth or	ISS N	Date of publicat ion	Publi sher						
N	Valid	388	388	388	388	388	388						
	Missing	0	0	0	0	0	0						
Perce ntiles	25	3.00	3.00	3.00	2.00	3.00	3.00						
	50	4.00	4.00	4.00	3.00	3.00	3.00						
	75	4.00	4.00	4.00	4.00	4.00	4.00						

Statistics

		Class marks	Keywords	Title	Authors name	User name/password	
N	Valid	388	388	388	388	388	
	Missing	0	0	0	0	0	
Percentiles	25	2.00	3.00	3.00	3.00	2.00	
	50	3.00	4.00	4.00	4.00	3.00	
	75	4.00	4.00	4.00	4.00	4.00	

Statistics

		URL/doi
N	Valid	388
	Missing	0
	Percentiles	25
		50
		75
		4.00

Frequency Table

Subjects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	.3	.3	.3
	D	4	1.0	1.0	1.3
	A	99	25.5	25.5	26.8
	SA	284	73.2	73.2	100.0
	Total	388	100.0	100.0	

Title

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	3	.8	.8	.8
	D	11	2.8	2.8	3.6
	A	114	29.4	29.4	33.0
	SA	260	67.0	67.0	100.0
	Total	388	100.0	100.0	

Author

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	4	1.0	1.0	1.0
	D	35	9.0	9.0	10.1
	A	115	29.6	29.6	39.7
	SA	234	60.3	60.3	100.0
	Total	388	100.0	100.0	

ISSN

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	20	5.2	5.2	5.2
	D	104	26.8	26.8	32.0
	A	149	38.4	38.4	70.4
	SA	115	29.6	29.6	100.0
	Total	388	100.0	100.0	

Date of publication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	12	3.1	3.1	3.1
	D	48	12.4	12.4	15.5
	A	141	36.3	36.3	51.8
	SA	187	48.2	48.2	100.0
	Total	388	100.0	100.0	

Publisher

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	23	5.9	5.9	5.9
	D	67	17.3	17.3	23.2
	A	123	31.7	31.7	54.9
	SA	175	45.1	45.1	100.0
	Total	388	100.0	100.0	

Class marks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	26	6.7	6.7	6.7
	D	84	21.6	21.6	28.4
	A	118	30.4	30.4	58.8
	SA	160	41.2	41.2	100.0
	Total	388	100.0	100.0	

Keywords

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	6	1.5	1.5	1.5
	D	19	4.9	4.9	6.4
	A	93	24.0	24.0	30.4
	SA	270	69.6	69.6	100.0
	Total	388	100.0	100.0	

Title

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	4	1.0	1.0	1.0
	D	14	3.6	3.6	4.6
	A	108	27.8	27.8	32.5
	SA	262	67.5	67.5	100.0
	Total	388	100.0	100.0	

Authors name

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	3	.8	.8	.8
	D	42	10.8	10.8	11.6
	A	141	36.3	36.3	47.9
	SA	202	52.1	52.1	100.0
	Total	388	100.0	100.0	

User name/password

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	28	7.2	7.2	7.2
	D	103	26.5	26.5	33.8
	A	130	33.5	33.5	67.3
	SA	127	32.7	32.7	100.0
	Total	388	100.0	100.0	

URL/doi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	44	11.3	11.3	11.3
	D	79	20.4	20.4	31.7
	A	138	35.6	35.6	67.3
	SA	127	32.7	32.7	100.0
	Total	388	100.0	100.0	

FREQUENCIES VARIABLES=VAR00024 VAR00025 VAR00026 VAR00027 VAR00028 VAR00029
VAR00030
/NTILES=4
/ORDER=ANALYSIS.

Frequencies

Notes

Output Created		17-APR-2021 16:21:29
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	388
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.

Syntax	FREQUENCIES VARIABLES=VAR00024 VAR00025 VAR00026 VAR00027 VAR00028 VAR00029 VAR00030 /NTILES=4 /ORDER=ANALYSIS.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02

Statistics

		Searching ...	Locating ...	Downloading ...	Retrieving ...	Reading ...		
N	Valid	388	388	388	388	388		
	Missing	0	0	0	0	0		
Percentiles	25	3.00	3.00	3.00	3.00	3.00		
	50	4.00	3.00	4.00	3.00	3.00		
	75	4.00	4.00	4.00	4.00	4.00		

Statistics

		Printing ...	Creating ...
N	Valid	388	388
	Missing	0	0
Percentiles	25	3.00	2.00
	50	3.00	3.00
	75	4.00	4.00

Frequency Table

Searching ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	3	.8	.8	.8
	D	9	2.3	2.3	3.1
	A	144	37.1	37.1	40.2
	SA	232	59.8	59.8	100.0
	Total	388	100.0	100.0	

Locating ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	9	2.3	2.3	2.3
	D	30	7.7	7.7	10.1
	A	165	42.5	42.5	52.6
	SA	184	47.4	47.4	100.0
	Total	388	100.0	100.0	

Downloading ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	13	3.4	3.4	3.4
	D	32	8.2	8.2	11.6
	A	143	36.9	36.9	48.5
	SA	200	51.5	51.5	100.0
	Total	388	100.0	100.0	

Retrieving ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	12	3.1	3.1	3.1
	D	45	11.6	11.6	14.7
	A	167	43.0	43.0	57.7
	SA	164	42.3	42.3	100.0
	Total	388	100.0	100.0	

Reading ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	10	2.6	2.6	2.6
	D	49	12.6	12.6	15.2
	A	160	41.2	41.2	56.4
	SA	169	43.6	43.6	100.0
	Total	388	100.0	100.0	

Printing ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	12	3.1	3.1	3.1
	D	35	9.0	9.0	12.1
	A	175	45.1	45.1	57.2
	SA	166	42.8	42.8	100.0
	Total	388	100.0	100.0	

Creating ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	57	14.7	14.7	14.7
	D	100	25.8	25.8	40.5
	A	112	28.9	28.9	69.3
	SA	119	30.7	30.7	100.0
	Total	388	100.0	100.0	

FREQUENCIES VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036 VAR00037
 VAR00038 VAR00039
 VAR00040 VAR00041
 /NTILES=4
 /ORDER=ANALYSIS.

Frequencies

Notes

Output Created		17-APR-2021 16:21:57
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav DataSet1
	Active Dataset	
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036 VAR00037 VAR00038 VAR00039 VAR00040 VAR00041 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Statistics

		Journals	Magazines	Newspapers	Newsletters	Proceedings	Bulletins				
N	Valid	388	388	388	388	388	388				
	Missing	0	0	0	0	0	0				
Percentiles	25	3.00	3.00	3.00	2.00	2.00	2.00				
	50	4.00	3.00	3.00	3.00	3.00	3.00				
	75	4.00	4.00	4.00	4.00	4.00	4.00				

Statistics

		E-Journals	E-Magazines	E-News papers	E- Newsletters
N	Valid	388	388	388	388
	Missing	0	0	0	0
Percentiles	25	3.00	3.00	2.00	2.00
	50	4.00	4.00	4.00	3.00
	75	4.00	4.00	4.00	4.00

Frequency Table

Journals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	14	3.6	3.6	3.6
	Sometimes	46	11.9	11.9	15.5
	Often	109	28.1	28.1	43.6
	Always	219	56.4	56.4	100.0
	Total	388	100.0	100.0	

Magazines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	15	3.9	3.9	3.9
	Sometimes	61	15.7	15.7	19.6
	Often	162	41.8	41.8	61.3
	Always	150	38.7	38.7	100.0
	Total	388	100.0	100.0	

Newspapers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	21	5.4	5.4	5.4
	Sometimes	65	16.8	16.8	22.2
	Often	135	34.8	34.8	57.0
	Always	167	43.0	43.0	100.0
	Total	388	100.0	100.0	

Newsletters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	50	12.9	12.9	12.9
	Sometimes	73	18.8	18.8	31.7
	Often	115	29.6	29.6	61.3
	Always	150	38.7	38.7	100.0
	Total	388	100.0	100.0	

Proceedings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	49	12.6	12.6	12.6
	Sometimes	87	22.4	22.4	35.1
	Often	129	33.2	33.2	68.3
	Always	123	31.7	31.7	100.0
	Total	388	100.0	100.0	

Bulletins

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	51	13.1	13.1	13.1
	Sometimes	74	19.1	19.1	32.2
	Often	137	35.3	35.3	67.5
	Always	126	32.5	32.5	100.0
	Total	388	100.0	100.0	

E-Journals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	38	9.8	9.8	9.8
	Sometimes	45	11.6	11.6	21.4
	Often	78	20.1	20.1	41.5
	Always	227	58.5	58.5	100.0
	Total	388	100.0	100.0	

E-Magazines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	45	11.6	11.6	11.6
	Sometimes	50	12.9	12.9	24.5
	Often	93	24.0	24.0	48.5
	Always	200	51.5	51.5	100.0
	Total	388	100.0	100.0	

E-News papers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	43	11.1	11.1	11.1
	Sometimes	61	15.7	15.7	26.8
	Often	89	22.9	22.9	49.7
	Always	195	50.3	50.3	100.0
	Total	388	100.0	100.0	

E- Newsletters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	72	18.6	18.6	18.6
	Sometimes	65	16.8	16.8	35.3
	Often	82	21.1	21.1	56.4
	Always	169	43.6	43.6	100.0
	Total	388	100.0	100.0	

FREQUENCIES VARIABLES=VAR00043 VAR00044 VAR00045 VAR00046 VAR00047 VAR00048
VAR00049 VAR00050

VAR00051 VAR00052 VAR00053 VAR00054

/NTILES=4

/ORDER=ANALYSIS.

Frequencies

Notes

Output Created		17-APR-2021 16:22:27
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav DataSet1
	Active Dataset	
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00043 VAR00044 VAR00045 VAR00046 VAR00047 VAR00048 VAR00049 VAR00050 VAR00051 VAR00052 VAR00053 VAR00054 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Statistics

		Schol arly ...	Evide nce ...	Curre nt ...	Inform ation...	Readi ng ...	Politi cal ...						
N	Valid	388	388	388	388	388	388						
	Missing	0	0	0	0	0	0						
Perce ntiles	25	2.00	2.00	2.00	2.00	2.00	1.00						
	50	2.00	2.00	2.00	2.00	2.00	2.00						
	75	2.00	2.00	2.00	2.00	2.00	2.00						

Statistics

		Entertainment	Job ...	Bibliographic ...	In-depth ...	A presentation ...	
N	Valid	388	388	388	388	388	
	Missing	0	0	0	0	0	
Percentiles	25	1.00	1.00	1.00	2.00	2.00	
	50	2.00	2.00	2.00	2.00	2.00	
	75	2.00	2.00	2.00	2.00	2.00	

Statistics

		research ...
N	Valid	388
	Missing	0
Percentiles	25	2.00
	50	2.00
	75	2.00

Frequency Table

Scholarly ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	27	7.0	7.0	7.0
A	361	93.0	93.0	100.0
Total	388	100.0	100.0	

Evidence ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	92	23.7	23.7	23.7
A	296	76.3	76.3	100.0
Total	388	100.0	100.0	

Current ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	58	14.9	14.9	14.9
A	330	85.1	85.1	100.0
Total	388	100.0	100.0	

Information...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	88	22.7	22.7	22.7
A	300	77.3	77.3	100.0
Total	388	100.0	100.0	

Reading ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	51	13.1	13.1	13.1
A	337	86.9	86.9	100.0
Total	388	100.0	100.0	

Political ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	155	39.9	39.9	39.9
A	233	60.1	60.1	100.0
Total	388	100.0	100.0	

Entertainment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	140	36.1	36.1	36.1
	A	248	63.9	63.9	100.0
	Total	388	100.0	100.0	

Job ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	132	34.0	34.0	34.0
	A	256	66.0	66.0	100.0
	Total	388	100.0	100.0	

Bibliographic ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	104	26.8	26.8	26.8
	A	284	73.2	73.2	100.0
	Total	388	100.0	100.0	

In-depth ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	54	13.9	13.9	13.9
A	334	86.1	86.1	100.0
Total	388	100.0	100.0	

A presentation ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	57	14.7	14.7	14.7
A	331	85.3	85.3	100.0
Total	388	100.0	100.0	

Research ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	51	13.1	13.1	13.1
A	337	86.9	86.9	100.0
Total	388	100.0	100.0	

Notes

Output Created		19-APR-2021 13:35:02
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	388
	File	
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=VAR00031 /STATISTICS=MEAN STDDEV.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

DESCRIPTIVES VARIABLES=VAR00024 VAR00025 VAR00026 VAR00027 VAR00028
VAR00029 VAR00030 VAR00031
/STATISTICS=MEAN STDDEV.

Descriptive

Notes

Output Created		19-APR-2021 13:35:48
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=VAR00024 VAR00025 VAR00026 VAR00027 VAR00028 VAR00029 VAR00030 VAR00031 /STATISTICS=MEAN STDDEV.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Mean	Std. Deviation
Searching ...	388	3.56	.583
Locating ...	388	3.35	.723
Downloading ...	388	3.37	.774
Retrieving ...	388	3.24	.777
Reading ...	388	3.26	.775
Printing ...	388	3.28	.753
Creating ...	388	2.76	1.046
Usage Pattern of Periodicals in Libraries	388	3.2584	.50501
Valid N (listwise)	388		

FREQUENCIES VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036 VAR00037
VAR00038 VAR00039
VAR00040 VAR00041
/NTILES=4
/ORDER=ANALYSIS.

Frequencies

Notes

Output Created		19-APR-2021 13:56:57
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>

Missing Value Handling	Split File	<none>
	N of Rows in Working Data File	388
	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES
		VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036 VAR00037 VAR00038 VAR00039 VAR00040 VAR00041
		/NTILES=4
		/ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Statistics

		Journals	Magazines	Newspapers	Newsletters	Proceedings	Bulletins				
N	Valid	388	388	388	388	388	388				
	Missing	0	0	0	0	0	0				
	Percentiles	25	3.00	3.00	3.00	2.00	2.00				
		50	4.00	3.00	3.00	3.00	3.00				
		75	4.00	4.00	4.00	4.00	4.00				

Statistics

		E-Journals	E-Magazines	E-News papers	E- Newsletters
N	Valid	388	388	388	388
	Missing	0	0	0	0
	Percentiles	25	3.00	3.00	2.00
		50	4.00	4.00	3.00
		75	4.00	4.00	4.00

Frequency Table

Journals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	14	3.6	3.6	3.6
	Sometimes	46	11.9	11.9	15.5
	Often	109	28.1	28.1	43.6
	Always	219	56.4	56.4	100.0
	Total	388	100.0	100.0	

Magazines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	15	3.9	3.9	3.9

	Sometimes	61	15.7	15.7	19.6
	Often	162	41.8	41.8	61.3
	Always	150	38.7	38.7	100.0
	Total	388	100.0	100.0	

Newspapers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	21	5.4	5.4	5.4
	Sometimes	65	16.8	16.8	22.2
	Often	135	34.8	34.8	57.0
	Always	167	43.0	43.0	100.0
	Total	388	100.0	100.0	

Newsletters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	50	12.9	12.9	12.9
	Sometimes	73	18.8	18.8	31.7
	Often	115	29.6	29.6	61.3
	Always	150	38.7	38.7	100.0
	Total	388	100.0	100.0	

Proceedings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	49	12.6	12.6	12.6
	Sometimes	87	22.4	22.4	35.1
	Often	129	33.2	33.2	68.3
	Always	123	31.7	31.7	100.0
	Total	388	100.0	100.0	

Bulletins

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	51	13.1	13.1	13.1
	Sometimes	74	19.1	19.1	32.2
	Often	137	35.3	35.3	67.5
	Always	126	32.5	32.5	100.0
	Total	388	100.0	100.0	

E-Journals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	38	9.8	9.8	9.8
	Sometimes	45	11.6	11.6	21.4

Often	78	20.1	20.1	41.5
Always	227	58.5	58.5	100.0
Total	388	100.0	100.0	

E-Magazines

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely	45	11.6	11.6	11.6
Sometimes	50	12.9	12.9	24.5
Often	93	24.0	24.0	48.5
Always	200	51.5	51.5	100.0
Total	388	100.0	100.0	

E-News papers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely	43	11.1	11.1	11.1
Sometimes	61	15.7	15.7	26.8
Often	89	22.9	22.9	49.7
Always	195	50.3	50.3	100.0
Total	388	100.0	100.0	

E- Newsletters

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rarely	72	18.6	18.6	18.6
Sometimes	65	16.8	16.8	35.3
Often	82	21.1	21.1	56.4
Always	169	43.6	43.6	100.0
Total	388	100.0	100.0	

DESCRIPTIVES VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036
 VAR00037 VAR00038 VAR00039
 VAR00040 VAR00041 VAR00042
 /STATISTICS=MEAN STDDEV.

Descriptive

Notes

Output Created		19-APR-2021 14:06:33
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav DataSet1
	Active Dataset	
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=VAR00032 VAR00033 VAR00034 VAR00035 VAR00036 VAR00037 VAR00038 VAR00039 VAR00040 VAR00041 VAR00042 /STATISTICS=MEAN STDDEV.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Mean	Std. Deviation
Journals	388	3.37	.830
Magazines	388	3.15	.823
Newspapers	388	3.15	.890
Newsletters	388	2.94	1.044
Proceedings	388	2.84	1.012
Bulletins	388	2.87	1.014
E-Journals	388	3.27	1.010
E-Magazines	388	3.15	1.043
E-News papers	388	3.12	1.044
E- Newsletters	388	2.90	1.157
Frequency of Using Periodicals	388	3.0781	.73752
Valid N (listwise)	388		

FREQUENCIES VARIABLES=VAR00043 VAR00044 VAR00045 VAR00046 VAR00047 VAR00048
 VAR00049 VAR00050
 VAR00051 VAR00052 VAR00053 VAR00054
 /NTILES=4
 /ORDER=ANALYSIS.

Frequencies

		Notes
Output Created		19-APR-2021 14:18:55
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav DataSet1
	Active Dataset	
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=VAR00043 VAR00044 VAR00045 VAR00046 VAR00047 VAR00048 VAR00049 VAR00050 VAR00051 VAR00052 VAR00053 VAR00054 /NTILES=4 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Statistics													
		Scholarly ...	Evidence ...	Current ...	Information...	Reading ...	Political ...						
N	Valid	388	388	388	388	388	388						
	Missing	0	0	0	0	0	0						
Percentiles	25	2.00	2.00	2.00	2.00	2.00	1.00						
	50	2.00	2.00	2.00	2.00	2.00	2.00						
	75	2.00	2.00	2.00	2.00	2.00	2.00						

Statistics								
		Entertainment	Job ...	Bibliographic ...	In-depth ...	A presentation ...		
N	Valid	388	388	388	388	388		
	Missing	0	0	0	0	0		
Percentiles	25	1.00	1.00	1.00	2.00	2.00		
	50	2.00	2.00	2.00	2.00	2.00		
	75	2.00	2.00	2.00	2.00	2.00		

Statistics				research ...
N	Valid			388
	Missing			0
Percentiles	25			2.00
	50			2.00
	75			2.00

Frequency Table

Frequency Table					
Scholarly ...					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	27	7.0	7.0	7.0
	A	361	93.0	93.0	100.0
	Total	388	100.0	100.0	

Evidence ...					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	92	23.7	23.7	23.7
	A	296	76.3	76.3	100.0
	Total	388	100.0	100.0	

Current ...					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	58	14.9	14.9	14.9
	A	330	85.1	85.1	100.0

Total	388	100.0	100.0
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Information...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	88	22.7	22.7	22.7
A	300	77.3	77.3	100.0
Total	388	100.0	100.0	

Reading ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	51	13.1	13.1	13.1
A	337	86.9	86.9	100.0
Total	388	100.0	100.0	

Political ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	155	39.9	39.9	39.9
A	233	60.1	60.1	100.0
Total	388	100.0	100.0	

Entertainment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	140	36.1	36.1	36.1
A	248	63.9	63.9	100.0
Total	388	100.0	100.0	

Job ...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	132	34.0	34.0	34.0
A	256	66.0	66.0	100.0
Total	388	100.0	100.0	

Bibliographic ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	104	26.8	26.8	26.8
	A	284	73.2	73.2	100.0
	Total	388	100.0	100.0	

In-depth ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	54	13.9	13.9	13.9
	A	334	86.1	86.1	100.0
	Total	388	100.0	100.0	

A presentation ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	57	14.7	14.7	14.7
	A	331	85.3	85.3	100.0
	Total	388	100.0	100.0	

Research ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	51	13.1	13.1	13.1
	A	337	86.9	86.9	100.0
	Total	388	100.0	100.0	

CORRELATIONS

/VARIABLES=VAR00010 VAR00042

/PRINT=TWOTAIL NOSIG

/MISSING=PAIRWISE.

Correlations**Notes**

Output Created		19-APR-2021 14:40:40
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	388
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.

Syntax		CORRELATIONS /VARIABLES=VAR00010 VAR00042 /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.08
	Elapsed Time	00:00:00.09

Correlations

		Visibility of Periodicals in University Libraries	Frequency of Using Periodicals
Visibility of Periodicals in University Libraries	Pearson Correlation	1	.210**
	Sig. (2-tailed)		.000
	N	388	388
Frequency of Using Periodicals	Pearson Correlation	.210**	1
	Sig. (2-tailed)	.000	
	N	388	388

**. Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS
/VARIABLES=VAR00023 VAR00042
/PRINT=TWOTAIL SIG
/MISSING=PAIRWISE.

Correlations

Notes

Output Created		19-APR-2021 14:48:57
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav DataSet1
	Active Dataset	
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=VAR00023 VAR00042 /PRINT=TWOTAIL SIG /MISSING=PAIRWISE.

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Correlations

		Accessibility of Periodicals in Libraries	Frequency of Using Periodicals
Accessibility of Periodicals in Libraries	Pearson Correlation	1	.256
	Sig. (2-tailed)		.000
	N	388	388
Frequency of Using Periodicals	Pearson Correlation	.256	1
	Sig. (2-tailed)	.000	
	N	388	388

REGRESSION

/MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT VAR00042
 /METHOD=ENTER VAR00010 VAR00023.

Regression

Notes

Output Created		19-APR-2021 14:55:34
Comments		
Input	Data	C:\Users\DR MRS OGBOMO\Documents\dr mrs ogbomo docs\Documents\SPSS RESULTS\Azonobi Ph.D Data.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	388
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT VAR00042 /METHOD=ENTER VAR00010 VAR00023.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.08
	Memory Required	4928 bytes

Additional Memory Required for Residual Plots	0 bytes
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Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Accessibility of Periodicals in Libraries , Visibility of Periodicals in University Libraries ^b		Enter

a. Dependent Variable: Frequency of Using Periodicals

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.300 ^a	.090	.085	.70534

a. Predictors: (Constant), Accessibility of Periodicals in Libraries ,
Visibility of Periodicals in University Libraries

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.965	2	9.483	19.060	.000 ^b
	Residual	191.539	385	.498		
	Total	210.504	387			

a. Dependent Variable: Frequency of Using Periodicals

b. Predictors: (Constant), Accessibility of Periodicals in Libraries , Visibility of Periodicals in University Libraries

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.897	.360		2.494	.013
	Visibility of Periodicals in University Libraries	.542	.168	.161	3.234	.001
	Accessibility of Periodicals in Libraries	.371	.084	.220	4.419	.000

a. Dependent Variable: Frequency of Using Periodicals