PROMOTION AND UTILIZATION OF ELECTRONIC INFORMATION RESOURCES IN FEDERAL COLLEGE OF EDUCATION LIBRARIES IN NORTH WESTERN STATES OF NIGERIA

BY

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN LIBRARY AND INFORMATION SCIENCE

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

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DECLARATION

I hereby declare that this thesis entitled "**Promotion and Utilization of Electronic Information Resources in Federal College of Education Libraries in North western States of Nigeria**" had been written by me under the supervision of Professor Zakari Mohammed and Dr. Babangida Umar Dangani**.** All literature consulted and cited were properly acknowledged.

Maryam BashirAminu Signature Date

CERTIFICATION

The thesis entitled "**Promotion and Utilization of Electronic Information Resources in Federal College of Education Libraries in North western States of Nigeria**" by Maryam BashirAminu meets the regulation governing the award of the degree in Library and Information Science of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

To my beloved parents Alh Bashir Aminu and Haj.Nana Aminu.

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ABSTRACT

This study was carried out to investigate the promotion and utilization of electronic information resources in Federal Colleges of Education Libraries in North Western States of Nigeria. In order to achieve this objective, five (5) research questions were formulated and the research questions sought to find out the types of e resources available, promoted and utilized in Federal Colleges of Education libraries in North Western States of Nigeria, the promotional media and strategies employed to enhance the utilization of e resources, the extend of utilisation as well as the challenges encountered in utilizing the available e resource. The hypothesis used was: the promotion of e resources in Federal Colleges of Education libraries has no significant influence on their utilization the hypothesis was tested at 0.05. Survey method was employed in the conduct of this study. The total number of 130 (92.7%) representing the 30% of the total population of library customers and library staff in the Federal Colleges of Education Libraries in North Western States (FCE Kano, Katsina and Zaria) were used for this study. The data collected for the study were presented and analyzed using both descriptive statistics and inferential statistics. Frequency distribution tables, percentages and chart were also used for the descriptive statistics while chi square was used to test the hypothesis formulated among the respondent of the Federal Colleges of Education Libraries in North Western States. The study found out about that HINARI, AGORA, AJOL, and DOAJ were the types of electronic information resources available are promoted and also utilized in the Federal Colleges of Education Libraries in North Western State. Library orientation and notice board were the employed to promote the use of e-resources in the Federal Colleges of Education Libraries in North Western States. The study recommended that the Federal Colleges Libraries in North Western States of Nigeria should subscribe more-resources and the college libraries should be upgraded with modern information technology facilities such as wifi access, printer, scanner generators and also the college libraries should use different media and strategies such as social media and electronic advertisement to promote their information resources especially electronic information resources in order to increase awareness of electronic information resources among the users of Federal Colleges of Education Libraries in North Western States of Nigeria.

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LIST OF ABBREVIATIONS

AGORA	Access to Global Online Research in Agriculture
AJOL	African Journals Online.
ARDI	Access to Research for Development and Innovation
CD-ROM	Compact Disc Read Only Memory
DOAJ	Directory of Open Access Journal.
E-MAIL	Electronic Mail
FCE	Federal College of Education
HINARI	The Health Internet-Work Access to Research Initiative.
ICT	Information and Communication Technology
INASP	International Network for the Availability of Scientific Publication
IT	Information Technology
JSTOR	Journal Storage
OARE	Online Access to Research in the Environment
OPAC	Online Public Access Catalogue
PDF	Portable Document File

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Information and Communication Technologies (ICTs) such as electronic resources and internet are influencing teaching and learning as major driving force in the new globalized andknowledge-based world order.These tools have made tremendous impact on the academic activities of students, researchers and professionals.After the advent of electronic information resources there is a significant transition in information access, use and library operations around the world. Many academic libraries are doing their best to provide their users access to this vast reservoir of information due to their many advantages which include flexibility, easy accessibility and availability regardless of time and location Rajeev (2015). It also facilitate the process of teaching, learning and research activities.

In 2000, most libraries started with a dial-up based Internet service through info.com, a commercial internet service provider. The aim was to improve information delivery electronically. Over the years, College of Libraries acquired a number of computers that were connected to the Internet. The main objective of IT investment in the Library was to enhance accessibility to electronic information resources so as to achieve optimum usage levels.

Electronic Information Usage in Library is a shift from print materials to electronic information materials and services in the form of CD-ROMS, e-books, e-databases, electronic journals, electronic current awareness service and information subject gateways, accessed through the internet. This means that students are able to utilize these resources for effective research and of better quality.

Information resources

Information resources are items containing information. They are also defined as anything consulted in order to obtain information (Keith, 2004). Within the context of library and information studies, information resources can be described as any information in electronic, audio-visual or physical form, or any hardware or software that make possible the storage of information. Information resources consist of all the collection of library including print and non-print provided with a review to satisfying information needs of users to help them perform better in their chosen areas of studies. Such resources include books, journals, reference books, computers and related electronic gadgets. These are usually consulted by customers due to their information contents whether in print or electronic format.

Electronic Information Resources

Electronic information resources, popularly known as e-resources which have become a major element of library collections worldwide. Ine-resources information is stored electronically which are accessible through electronic systems and networks. According to Saye (2001), "electronic resources are the resources that are generated through some electronic medium and made available to a wide range of viewers both on-site and off-site via some electronic transferring machine or internet". E-resources are generally in the form of e-Books, e-Journals, OPACs, CD-ROMs, Online databases, internet resource, electronic link and web publishing etc.

Onlineelectronic information resources usually consist of online books, online journals, online magazines,online newspapers, online theses, dissertations, online databases which are likely to be alternative through media EBSCO HOST, DOAJ, JSTOR, HINARI, are some of the

examples of online electronic databases,these are available on the internet either through open access or commercially (Kumar, and Kumar,2010). On the other hand, offline electronic information resources include e-journals, e-dataarchives, e- manuscripts, e-maps, e-books, e-magazines, e-theses, e-newspapers, e-mail,e-research reports, e-bibliographicdatabase and CD-ROM databases which are accessible through some electronic machines.

According to the International Federation of Library Association and Institution (IFLA) "electronic resources" refer to those materials that require computer access whether through personal computer, mainframe, or handheld mobile device. They may be either accessed remotely via the internet or locally. They include: e-journal, e -books, full text (aggregated) databases, Indexing abstracting databases, reference databases, numeric and statistical databases, e-images, e-audio visuals resources. (IFLA, 2012)

Library Information Resources and Services Promotion

Promotion is another important phenomenon in marketing information resources and services. It requires mechanism by which academic library target group of customers are informed about the resources available in library and Information centre**.** Users may not be aware or familiar with the library system, and it is essential that every year new students are joined with the library and at the beginning of the academic year, they must be provided awareness programmes in order to facilitate access to it resources. Philip (2014), states that word of mouth campaign is the best mechanism for promoting the use oflibraryservices. The primary promotion tool is library instructions in the form of workshop, seminars, lectures etc

Need For Library Promotion Resources and Services

- To promote the use of available reading material in the library and create awareness among the users.
- To optimize the use of information within limited resources and manpower.
- Limited Budget for library needs to market services and generate funds for library
- To improve the image of the library.
- Due to information explosion, readers require precise and correct information for their research and study. Presently libraries are investing huge amount to purchase reading material and subscription to periodicals and online databases to fulfill the needs of their students, faculty members and research scholars. Investing such amount for the resources, the usage of these resources should also increase.
- Libraries should think and work out the cost benefit analysis of this investment. Therefore, it is quite necessary to educate people about the services provided by libraries and promote their use. There are several ways to promote the usage of services, Organization of Information Literacy program on regular basis at various levels. Organization of workshops/ training programs on awareness of resources available in the libraries and Information centers. Organization of training programs to library staff with modern technologies and experts. Attract the people by organizing bookexhibitions of new books with the help of vendors or the material available in the library should be displayed at prominent place.

Utilisation of Electronic Information Resources

Electronic information resource utilisation is concerned with the use of variety of information resources for teaching, learning and research activities. Such resources include e-books, e-journals, e-theses, and e-dissertations, e-newspapers, e-magazines, e-indexes, e-abstract, internet based, online/offline databases, online encyclopedia and Dictionaries etc.

Khalid and Hafeez (2010), found that electronic information resources (online/offline) are used for the purpose of conducting scientific research, teaching and community development etc. Letchumanan (2011), found that factors such as easy access reduced physical visit to library. The user-friendly features of online/offline resources offer a comfortable platform for participants to use e-books, e-journals, e-magazines, e-newspapers, e-theses, e-dissertations etc. Many Academic Library users rely on electronic information resource as their sources because they provide many advantages over print resources such as providing 24x7 access, universal access; saving physical space; ability to linked from and indexing and abstracting databases; accessibility from the users' home, office, or dormitory irrespective of whether or not the physical library is open; the ability to get usage statistics that are not available for print resources and their relative ease of maintenance

1.2 Statement of the Problem

Academic Library is a repository of resources it is an integral part of the educational system whose primary function is to serve users (students, researchers and staff). Computers and related electronic resources have come to play a central role in education. Electronic resources are the prime ingredients and they become a common part of the suite of most academic library resources today. E-resources have brought about a shift in the provision of library services and information by providing wide access to resources from different parts of the world with ease. E-resources provide many advantages over the traditional print based resources. They contain current information because they are updated frequently. They offer advanced search capabilities, and offer flexibility in the storage of results. They enable access and use of information without restriction of timeand location.(Kumar and Kumar 2010). E- Resources have become an integral and substantial component of academic library collections worldwide

Academic libraries especially College Library provide access to information resources in various formats including electronic information resources services. This is through open access international donors or annual subscription of online databases such as HINARI, JSTORE, DOAJ, AJOL, EBSCOHOST etc. and other offline information resources, to facilitate access to information resources to users. However, preliminary investigation revealed that mostelectronic information resources in the Nigerian Colleges of Education Libraries were under utilized (Olusanya, 2014) and there is no element of publicity regarding their usage (Stephen,2012). More over information collected from different websites offering free electronic information resources and services showed that Nigerian Colleges of Education Libraries have not gone beyond registration to active usage, their usage was low (Mortenson Report,2005:14). Library users can only utilise these electronic resources when the librarians make them awareof their

existence and availability.This brought about the need to investigate the promotion and utilisation of electronic information resources in the Federal college of Education Libraries in the North Western States of Nigeria.

1.3 Research Questions

The research questions for this study consist of the following:

1. What types of e-resources are available in the Federal College of Education Libraries North western States of Nigeria?
2. What types of e-resources are utilised in the Federal College of Education Libraries North in western States of Nigeria?
3. What types of e-resources are promoted in the Federal College of Education Libraries North western States of Nigeria?What types of e-resources are being promoted in the Federal College of Education Libraries North western States of Nigeria?
4. What promotional media and strategies are employed to enhance access and utilization of electronic resources in the Federal College of Education Libraries in North Western of Nigeria
5. To what extent does the promotion of e-resources influence the utilization of e-resources in the Federal College of Education Libraries in North Western of Nigeria?
6. What are the challenges to the utilization of e resources being promoted in the Federal College of Education Libraries in North Western States of Nigeria?

1.4 Objective of the Study

The objectives of the study are as follows;

1. To identify the types of e-resources that are available in the Federal College of Education Libraries North western States of Nigeria
2. To investigate types of e-resources utilised in the Federal College of Education Libraries North western States of Nigeria
3. To investigate types ofe-resources promoted in the Federal College of Education Libraries North western States of Nigeria
4. To determine the promotional media and strategies are being employed to enhance the access and utilization of electronic resources in the Federal College of Education Libraries in North Western of Nigeria
5. To ascertain the extent to which the promotion of e-resources influences the utilisation in the Federal College of Education Libraries in North Western of Nigeria
6. To identify the challenges to the utilization of e resources being promoted in the Federal College of Education Libraries in North Western States of Nigeria

1.5 Hypothesis;

The study has only one hypothesis which is as follows;

Ho1: Promotion of e resources in Federal Colleges of Education libraries in North Western States of Nigeria has no significance influence on their utilization

1.6 Significance of the Study

The study would be significant particularly to Federal Colleges of Education Libraries and their parent institutions, this is because it is hoped that the recommendations will be used as a guide to create awareness so as to improve on utilization of e resources.

The study would also be significant particularly to library staff in Federal Colleges of Education Libraries, because they are expected to use the recommendations of the study to attract and encourage more users to utilize e resource.

The study will also be beneficial to librarians and information scientist, with this study they will know the importance of utilization of e resources that is access to current information regardless of time and location. Which would make them accelerate in their profession.

The study would serve as a source of feedback for the college libraries in the institutions on the provision of electronic information resources and services to the academics and community in general.

The finding of the study could be used a source of reference for other research on library promotion and use of electronic information resources.

1.7 Scope of the Study

This study covered the staff and users of the Federal Colleges of Education in North Western States of Nigeria Federal Colleges of EducationFCE Zaria, FCE Kano, FCE Katsina FCE Bichi and FCE Gusau

1.8 Limitation

Due to the constraints of finance, the time within which the research is to be carried out, presented and defended, proximity among others.This study was limited to three Federal Colleges of Education in North Western States of Nigeria which include FCE Zaria, FCE Kano, FCE Katsina

1.9 Operational Definition of Terms

In this research the following concept ware defined operationally:

Academic: A person who is a teacher in a tertiary institution such as college or university

AcademicWork: All activities that facilitate teaching, learning, research and self-development etc.

Customer: A person who uses the services of a business, library etc

Electronic Resources: The resources that are generated through some electronic medium and made available to a wide range of viewers both on-site and off-site via some electronic transferring machine or internet

Information Resources: These refer to items containing information anything that is consulted to obtain information

Library: A place where print and non-print information materials are kept for use.

Media (the singular form of which is medium): is the collective communication outlets or tools that are used to store and deliver information or data.

Promotion: Raising customer's awareness of a product or brand.

Research: An investigation, examination of study or finding out about something

Strategy : A plan or action intended to attract users or customers to a product or brand

Teaching: A process of educating learners by a teacher.

Utilisation: To use something in an effective way

REFERENCE

IFLA (2012). International Federation of Library Association; Key Issues in Electronic Resources Collection Development and CMO Proposed Standard Guidelines for Academic Libraries.

Keith, W. and Turfs B. (2004). Collection Management in Academic Libraries in 21st Century.

Khalid, A. and Hafeez U.(2010) Utilization of Online Arabic Information resources among Undergraduate Student, King Khalid University Jiddah, 22(1) 1-7.

Kumar, B. T. and Kumar, G. T. (2010). Perception and Use of E-resources and the Internet by Indian Academics. The Electronic Journals, 28(1), 137-156.

Letchumanan,B.andTalhami A. (2011). Electronic Resource Usage in Academic and Research Institutions in Tanzania.

Mortenson Report (2005).*Developing Strong College of Education Libraries in Nigeria: A Report for the MacArthur Foundation*. Urbana-Champaign: Mortenson Center for International Library Programs at the University of Illinois

Olusanya, S. (2014). Capacity Building on the Acquisition and Management of E Library for Librarians in Tertiary Institution, a Workshop Organize by Tetfund.

Philip K. (2014). Principles of Marketing, 15th Edition.

Ranjeev, (2015). Use of Internet and Electronic Information Resource, American Journal of Educational Research: vol 3, No. 7,2015, pp 886-892.

Saye, J. D. (2001). The Organization of E-resources in Library and Information Science Curriculum OCLC Systems and Services, 17(2) 71-78.

Stephen, O. (2012). Awareness and Use of Electronic Resources by Library and Information Student in Delta State University, Abia Nigeria Library – Vol. 45, No.(3). Dec. 2012.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

A review of literature related to the topic is done under the following:

2.2 Concept of e-resources

2.3 Availability of Electronic Resources in Academic Libraries

2.4 Utilization of Electronic Resources by Users in Academic Libraries

2.5 Promotional Strategies Adopted forElectronic Resources Utilisation in Academic Libraries

2.6 Challenges to Utilisation of Electronic Resources in AcademicLibraries.

2.7 Summary of LiteratureReviewed

2.2 Concept of Electronic Information Resources

According to Shuling (2007), electronic information has gradually become a major resource in every library. The emergence of electronic information resources, simply referred to as electronic resources, has tremendously transformed information handling and management in academic environments and in libraries in particular. Ellis and Oldman (2005) note that through the use of electronic resources, researchers and student now have access to global information resources, particularly the Internet for their scholarly intercourse.

The dearth of current and up-to-date information for research in university libraries is attributed to poor levels of developing electronic information resource, (Afolabi, 2007; Faborode, 2007; Bozimo, 2007). Libraries need to be vanguards for technology transfer from the developed world to the developing economies of Africa. To meet these expectations African university libraries must provide a link between local researchers, scholars and their counterparts

in other parts of the world. Utilization of online information resources is the way of achieving this objective. According to Tsakonas&Papatheodorou. (2006) electronic information resources are information resources provided in electronic form, and these include resources available on the Internet such as e-books e-journals, online database, CD-ROM databases and other computer –based electronic networks, among others.

The Internet

According to Jensen's Report (2007), 54 countries in Africa had Internet connectivity. By the year 2009 however, Internet penetration as a percentage of the total population of Africa was still 1.4% compared to the world average penetration of 12.7% (Internet Worldstats.com2009). Gakibayo (2001) carried out a study on Internet usage by students and staff at Mbarara University of Science and Technology and the results of the study indicated low usage.

Though the internet has provided a wider access to global information resources such as online databases, e-journals, e-prints and other sources of digital information, these resources are not effectively utilized due to varying factors. According to Missen*et al.* (2005), the internet poses African universities to gain equal footing with their sister institutions in the more developed countries.

It is imperative that African universities be connected if they are not to be rendered irrelevant in the modern academic world. The Internet is very useful as a communications tool in the universities among librarians and library clientele. It is the most efficient means of electronic document delivery (Al Fadhli and Johnson, 2006).

Electronic Journals

With the advent of the Internet, researchers and academics have recognized the capabilities of the information and communication technologies as efficient means to share results and to get around barriers by full transfer of intellectual property rights from the author to the publisher, it is also a means of improving the slow turn-over of traditional publishing Correia and Neto, (2006).

Electronic journals relatively provide efficient access to information, thus they are easy to distribute to library patrons than traditional print. In the financial stringent environment of higher education system, electronic journals have become a medium which is cheaper than the traditional printed journals.Ellis and Oldman (2005). According to Rowley (2006) electronic journals take two different forms: journals that are published in print form, available in digital form and electronic journals which do not necessarily need a publisher, and which can be managed by an editor and the scholarly community. Both types may have a significant impact on the way knowledge is created and disseminated. The major objective of academic library for subscribing to the electronic information resources is to facilitate access to international information resources on the World Wide Web as soon as it is published.

CD-ROM

CD-ROM databases allow users access to relevant databases without robust Internet connectivity in libraries. It is therefore cost effective than online databases as information could be accessed telecommunications fee (Afolabi, 2007). Besides, CD-ROM databases are of immense value over print if the system is networked, as patrons at their terminals could access information without coming to the library. The information revolution brought forth by advances in information and communication technology has enabled universities and colleges around the

world to take advantage of these developments. New modes of teaching, learning and accessing information have emerged as a result of Internet and World Wide Web (Darkwaand Mazibuko. 2000).

CD-ROM databases are important tools for identifying the bibliographic details of potentially useful documents and ensure easy access to large volumes of literature for research. Majid and Tan (2000) emphasize that the amazing technological advance have opened new horizons for distribution and presentation. The pace at which information sources are being produced and converted into electronic form is tremendous. Digitization of information is resulting in access to unbelievable volumes of information. It is important to find out how this information is utilized in library by users.

Some of the donor funded online electronic resources for Africa including Nigerian libraries are listed below**;**

African Journal Online (AJOL)established as a regional online journal service. In 2008, the program was extended to Nigerian libraries it has access to over 14,500full text online journals, document delivery from over 20,000 research journals. Its service include capacity building and promotion of network

HealthInternetwork Access to Research Initiative (HINARI) was launched in January 2002 by World Health Organization and has over 3500 scientific electronic resources in Public Health, Biomedicine and related Social Sciences including Library and Information Science. These publications are by over 70 publishers including mostof the major scientific presses one of the world's largest collection on Biomedical literature.

Access to Global Online Research in Agriculture (AGORA) was launched in October 2003 to provide free or low cost access to major scientific journal in Agriculture, and related

Biological, Environmental and Social Sciences (Otokunefor and Kari, 2008:65). It provides access to over 9000 journals published by world's leading academic publishers.

Online Access to Research in the Environment (OARE), jointly coordinated by the United Nations Environment (UNDP), Yale University and leading Science and Technology publishers. It's list contains 1,822current journal title publishers and owned by more than 200 prestigious publishing houses, scholarly societies and scientific association. It also provide access to important abstract and index research data base (A & I databases) intellectual tools used by scientific and professional community uses to search for specific information within thousands of scholarly publication.

Journal Storage (JSTOR)program is an online journal service that provides a comprehensive coverage of older journals in core areas. It is an online journal service that provides access to the full text of more than 450 journals from academic publishers covering initial issues to within five to seven years.

Electronic Information for Libraries (elFL), an independent foundation which strives to lead, negotiate support and advocate for the wide spread of electronic resources to library users in developing countries. The elFL program provides some journal packages, especially EBSCOHOST information service, a while establish aggregator of electronic journal contentthat offers full text access to over 10,000 titles. These titles cover diverse areas such as Science and Technology, Social Sciences and Humanities.

2.3 Availability of Electronic Information Resources in Academic Libraries

Upadhyay and Chakraborty (2008) reportingon the awareness of online journals and data bases among academics at the Main Library, Institute of Technology Banaras Hindu, noted that

Science Direct has awareness frequency(84.3%), and Springer Links came second with (56.25%) and Ebsco host came third(46.87%) .

Harridan and Khan's (2009) research study indicated that there exists awareness of e-resources (such as e-books, e-journals, e-encyclopedias, e-theses, CD-ROM databases, e-mail, internet based resource and thee OPAC) among research scholars. Badu and Markwei, (2005) found out that e-journals and other e-resources are available for academic staff of Karachi. Similarly, Kinengyere (2007) found out that e-journals and other e-resources are not necessarily accessed and used by users. The study shows that the availability of information does not necessarily mean actual use, because academicians may not be aware of the availability of such resources, they do not know how to access these resources. Sharma (2009), Borrego *et al.* (2007) and Ibrahim (2006) have all reported that e-journals are the most used among the arrays of available electronic resources. Falk (2005) reviewed library on-line databases of the United State libraries and described the availability of on-line databases for library patrons in the USA. The major findings were (i) on-line databases are now widely available to library patrons in the United States and many patrons can tap into these databases from their own computers; and (ii) larger libraries and library systems can afford to offer their own choice of databases to their patrons through their web sites.

Said (2005) argued that it is not enough to provide electronic resources to library users without letting them know of what is available. Mounting well-organised awareness campaign to draw users' attention to what is available is the greatest challenge encountered in the implementation process. Said (2005) enumerated the different promotional materials for the awareness exercise to the library users. These include posters, pamphlets and bookmarks containing relevant information on the available electronic resources. Comprehensive library

website was developed to create awareness and serve as a central point for users to get information on available electronic resources

Manda (2005) reported that a number of potential users seemed not to be aware of or remember receiving information distributed to individual users on the availability of full text journals. Findings from his study revealed that in the same departments that have heavy users of the available electronic resources also have those who claimed to have never heard of them.

Gbaje (2007) in his study of the provision-of online information services in Nigerian academic libraries found that only 20% of the libraries provide information on the available electronic resources in their website.

2.4 Utilisation of Electronic Resources by Users in Academic Library

Islam and Habiba (2015) conducted a study on using pattern of internet and e resources.The study revealed that most of the respondents use e resources for learning purpose and e books were on top in their choices.

Rajeev*(*2015) carried a study on use of internet and Electronic Information Resources by teachers and students of Punjab 49.2% of the respondents use Medline/ Pub Med to access e-resources which is followed by Ebsco with 29.5%; where as 21.3% used the Health Science Library Network.

Omotayo (2006), Sharma (2009), Borrego *et al*, (2007) and Ibrahim (2006) have all reported that e-journals are the most used among the arrays of available electronic resources.
As reported by Omotayo (2006), 22 (8.98%), 67 (37.35%), 102 (41.63%), 34 (13.88%) and 20 (8.16%) of the total population of 245 used electronic journals daily, weekly, monthly, bi-monthly and occasionally respectively. Majority use e-journals monthly, while 52% of total

population in Borrego, *et al.*, (2007) stated that they use electronic journals exclusively or mainly.

According to Sharma (2009), the second highest preference in terms of e-resources usage after e-journals is the Web and e-mail with 30 (57.69%) and 41 (78.84%) among teachers, whereas 23 (76.66%) and 18 (60.00%) among research scholars use them respectively. This is supported by Madhusudhan,(2008) that 67.64% of research scholars of Faculty of Science and 69.23% of research scholars of Engineering use e-journals for research work whereas 35.29% of Sciences use e-journals to update knowledge and 23.7% of Engineering use these for study. Tiefel (2004) stated that most library users are unaware of the quality and variety of information available. He further pointed out that students are often satisfied with materials that an experienced librarian would find inadequate and /or inappropriate. It was identified that discipline hasa major influence on usage patterns and preferences, and that faculty members in science tend to use the internet more intensively than Faculty members in the Humanities or Social Sciences (Lazinger*et al.*., 2003). Age also plays an important role in usage; the younger the student and Faculty members are, the more they use electronic sources (Bar-llan*et al.*, 2003). It has also been reported that men are heavier users of the Internet and make most use of the more complicated services. Bar-lla*et al.*., (2003) also found that gender and academic rank have only a minor influence on the usage of e- sources and the Internet. Madhusudhan, (2008) conducted a study to learn about the use of the Internet by the research scholars of the university of Delhi, India. It revealed that majority of the scholars 70% used the Internet daily for academic purposes, they summarized their findings as follows: using e-journals and data bases. It also indicated that 98 percent of users preferred the Internet e-mail facility, 96% were using the World Wide Web, 4% the least used the FTP Internet service, some faced information retrieval

problems through the Internet and 73% of users faced very low bandwidth when surfing the web. Madhusudhan (2008) carried out a study on the use of electronic resources by teachers, students and research scholars of universities and research organizations. Seventy-eight percent (78%) of the respondents feel that the use of the UGC-Infonet e-journals has created high dependency value on their research work and they needed current article alert services and electronic document supply services.

Madhusudhan (2008) determined the use of e-resources, users' skills in handling e-resources, and the purpose of their use by research scholars of Kurukshetra University, Kurukshetra, India. The findings revealed that electronic resources have become an integral part of the information needs of research scholars. That the e-resources could be good substitute for conventional resources, if the access is fast, and more computer terminals are installed to provide access to e-resources.

Stephen (2012) examined the knowledge and use of electronic information resources by faculty at the University of West Indies. The findings showed high level of awareness (80%) of electronic resources made available by the library; but low use of the library specific resources; 83% of respondents acquired skills to use electronic resources through self-teaching, and they still expressed a need for training. The highest use of electronic resources was for communication (86%), followed by research (77%), support of teaching activities (74%) and for administrative purposes (41%).

In a study by Zhang, Ye and Liu (2011) it was found that electronic resources are used for the purpose of conducting scientific research, teaching, and for self-development. Bar-Ilan, *et al*… (2003) conducted an extensive survey of the senior academic staff of the Israeli University on their use of electronic journals and databases. The major findings were that the use of

electronic sources is already widespread among the respondents and more than 50% found the electronic services indispensable. Disparities were found in usage patterns between the different disciplines.

A t-test analysis was conducted by Ibrahim (2006) to measure the use of e-resources and detect factors that determine effective and frequent use. A criterion of less than 0.05 was used to determine the significance of use. Figures show that frequency of use of e-resources was significantly low for most types of e-resources. The least frequently used e-resources were e-books ($t. = 2.10$, $p < 0.05$), the online catalogue ($t. = 2.65$, $p. < 0.05$) and bibliographic databases ($t. = 2.60$, $< p. 0.05$). For comparison, online reference works ($t. = 2.86$, $p < 0.05$), e-journals ($t. = 2.70$, $p. < 0.05$) and full-text articles ($t. = 2.78$ $p. < 0.05$) were found to be more popular, even though they still fell below the anticipated frequency in the survey's set mean.

2.5 Promotional Strategies Adopted for E-Resource Utilization in the Academic Libraries

One solution that was recommended by Pejova (2006) is launching and carrying out collaborative joint projects between professionals from developed countries and those from less developed countries as a way of developing illiteracy skills which will enable students to acquire information retrieval skills that will enable them to exploit the massive e-resources that are in existence today. According to Katundu (2002), information literacy in the curriculum has not received much attention due to the factor that only librarians are engaged in the teaching of the library discipline. Many authors such as Heseltine (2000) and Rader (2000) agree that a successful information literacy programme can be well delivered when it is integrated within

curriculum. This is the only way that can be made to relate information sources to various courses, thus rendering it functional and more meaningful to students

Omoniwa (2003) observes that power will rest largely on staff that possesses multiple skills. Employment of librarians for instance, should be based on skills in technology applications. This strategy would improve on e-resource utilization, as library staff would be expected to provide leadership in computer applications such as Internet and CD-ROM translate into a greater ability of students to exploit the massive technologies in academic libraries in developing countries. In the opinion of Dai *et al.* (2000), there is a need for a library consortium that will ensure collective acquisition of e-resources. This will enable financially weak libraries to contribute to a general pool that would ensure the utilization of jointly acquired ICT facilities as a means of gaining easy access for the users. A consortium with the collective strength of resources of various institutions available to it is in a better position to resolve (Bedi and Sharma, 2004). Therefore, consortia are imperative alliances for the purpose of identifying and addressing common needs arising from development in information technology, especially the growing importance of the internet and the World Wide Web. According to Bedi and Sharma (2004) the strategies in this direction include among others:

- Selecting a coordinating agency to work on behalf of the entire group of participants that will be charged with executing and monitoring programs and activities.
- Identifying and negotiating with the potential publishers/vendors or aggregators to provide access in which purchase is done by consortia.

- Identifying the necessary infrastructure for electronic access to resources and download the required materials without even going through the elaborate process of inter-library lending.

Ways to Improve Electronic Information Resources Utilization in Academic Library

A study conducted by Gakibayo*et al.* (2013) on utilisation of electronic resources by students of MbararaUniversity found that majority of (61.6%) respondents suggested that first year students from all faculties should be introduced to computer training at the first year of study at the university. While other (60.5%) were of the opinion that the University should have more networked computers. According to Ray and Day (1998) the University should make efforts to improve students' computer skills through training and information literacy. extensive experience in user education programs has shown that teaching information retrieval skills to students should be embedded in the curriculum, and instruction should be given at a time when users can understand its appropriateness. Students need to be encouraged by their lecturers to use e-resources for references to enable students to use and locate these resources. This may increase the number of students acquiring the necessary information retrieval skills. If students are not encouraged to use electronic resources by their lecturers, and if information skills training occur outside the curriculum, students will be less likely to make use of electronic resources for academic purposes.

2.6 Challenges to Utilization of Electronic Information Resources by Library Users

Manda (2005) reported that the problems faced by users of electronic resources in his study were similar, with little differences across institutions. According to Manda (2005), 75% of academic staff and 50% of all students said that the Internet slow speed was a problem. The

problems of server and low bandwidth, according to Chifwep (2003), discouraged users from the use of electronic resources. Among the problems, which he termed inhibitors, server problems accounted for 77.1%, 31.4% for connectivity problem and 17.1% for lack of good guidance on how to use the Internet and electronic resources

Insufficient bandwidth congests the network, making it impossible to download full text electronic resources. When the network is congested, the speed becomes very slow resulting to users' frustration. Gwynn and Rosenberg (2005) reported that universities in Africa had between 512Kbps to 2/3Mbps. According to Mortenson Report (2005), a PDF-formatted image document that is a common format for full text library resources is a 2Mbps typical file size. Bandwidth connectivity of one Mbps to 2Mbps of most Nigerian College of Education Libraries is inadequate to support real-time electronic resource access delivery. "

According to Manda (2005), access to and availability of PCs potentially influence the use of electronic resources. Seventy-eight percent (78%) of the student respondents of Manda's (2005) study identified few numbers of computers available to them for browsing as a problem. He observed inadequacy of the numbers of PCs available to users in all the surveyed libraries. The interesting feature here is that at the institutional level, the observation is that the availability of PCs is good. However, in the libraries of these same universities or institutions, the number of computers accessible to users was generally unsatisfactory. The lack of workstations as a problem was also reported by Ojo and Akande (2005), Belcher *et al* (2O06).

Gwynn and Rosenberg (2005) also noted the problem of paucity of PCs in African Colleges of Education Libraries. The survey's findings showed that college of education Libraries that provide more than one PC for every 100 Fulltime equivalent (FTE) students constituted only 15%. This figure is far below the recommended African average of one PC to 25

students. The recommendation had taken into account access through university and faculty computer laboratories, as well as the low level of personal PC ownership Gwynn and Rosenberg (2005). The problem of limited PCs creates long queues due to the limitation of time quotas for browsing. Dadzie (2O07) noted the long queues experienced by students as they wait eagerly to use PCs for browsing the Internet.

As a result of the inadequate number of PCs with Internet connectivity, use restriction and access charges are introduced which become problems in themselves. Gwynn and Rosenberg (2005) advocated for the restriction of access to timed periods where there were few computers. An example given is the Midlands State University, Zimbabwe, that allows use of computers by 30 minutes' periods. Mortenson Report (2005) argues that users are effectively discouraged from exploring available Web resources on campuses where they are charged a fee based on usage.

Another problem noted by Manda (2005) is that of restricted opening hours. The opening hours pose a limitation on access to the available PCs. The operational hours are between 8.00am to 4.00pm or 6.00pm for most of the college of education Libraries studied. Only a few operate liberal hours of 8.00am to 10.00pm. The twin problem to restricted opening hours is that of computer use charges. Some of the libraries charge fees and others do not. Interestingly, where there is free access, long queues are checked through restricting time per PC per user. Manda (2005) reported that at the University of Dar es Salaam's (UDSM) Main Library, users are allowed only half an hour at a time of computer access that can be extended if there are no users queuing to take their turn. Muswazi (2005) recommended the procurement and installation of more computer terminals and the allocation of generous time quotas for effective databases searches.

Another problem that affects usage of electronic resource access is lack of usage skills. The lack of usage skills reported by Ray and Day (1998), Rosenberg (2005), Gwynn and Rosenberg (2005) and Mortenson Report (2005) causes low usage of electronic resources. Ray and Day (1998) fingered limited time and the lack of effective information retrieval skills as the main problems to using electronic resources. Ojo and Akande (2005) also affirmed lack of usage skills was identified by 30% of their respondents to be a problem in the use of electronic resources. Manda (2005) reported that 47% graduate students and 39% of academic staff mentioned the lack of skills in searching electronic resources as a problem.

The lack of reliable power is a major problem for users of electronic resources. The Mortenson Report (2005) stated categorically that reliable power is a precondition for the provision and use of electronic resources. According to the report the library shuts down its ICT facilities and services once there is no power; thus frustrating the users who cannot access the electronic resources due to power outages. Gbaje (2005) highlighted the problem of frequent power surge and power failure affecting the use of the computer laboratory down and connection not available (Manda, 2005).

Gbaje (2005) reporting on the damaging effect of power surge and power failure, said that out of the seven computers in the laboratory, "three had their power pack burnt and two had their hard disk crashed, leaving only two functioning computers at the end of October 2002"(Gbaje,2005).

Gwynn Rosenberg (2005) found out from her study that only a minority of African College of Education Libraries had fully automated systems even though library automation started in the early 1990s in these countries. Only libraries with donor assistance that started late were fully automated. The University of Dar es Salaam Main Library, which started automation

in 1998, is an example because it is fully automated with donor assistance. These African College of Education Libraries according to Rosenberg (2005) depend on external funding for the provision of computers and electronic resources.

2.7 Summary of the Literature Reviewed

This chapter reviewed literature related to this study. The chapter discussed on concept of electronic resources, types of electronic resources such as e journals, internet, online database such as HINARI, AJOL AGORA among others utilization of electronic resources which include e learning, updating knowledge, research work etc. challenges encountered when utilizing e resource such as erratic power supply, computer illiteracy slow internet connectivity, to mention but few were reviewed. Most of these literature focused on availability and utilization of electronic information resources in University libraries. These literatures revealed that electronic information resources are the new information resources that many libraries are adopting. None of these literatures focused on promotion and utilization of electronic information resources in Federal College of Education Libraries in North Western States of Nigeria as the perspective of these studies.

References

Afolabi, M.O. (2007). Paper Presented at Electronic Information for LibrariesNetwork (elFL.net) Workshop ObafemiAwolo University, Ile-Ife, Nigeria, October.

Akintunde, S. (2006). *State of ICT in Tertiary Institutions in Nigeria*: Window on Universities. Paper Presented at the 44th Annual National Conference and AGM of the Nigerian Library Association, Abuja.

Al Fadhli, M.S. and, Johnson,I.M. (2006). "Electronic Document Delivery inAcademic and Research Organization in the Gulf States: a CaseStudy of Kuwait", *Information Development*, Vol. 22No.1, pp.32-37.

Badu, E.E. and Markwei, E.D. (2005). Internet Awareness and Use in the University of Ghana. *Information Development, (21)4, 260-268.*

Bar-Ilan,*et al* (2003). Survey on the Use of Electronic Databases and Electronic Journals Accessed through the Web by the Academic Staff of Israeli Universities, *Journal of Academic Librarianship*, 29(6) 346-361.

Belcher, M. Gwynn, S. and Rosenberg, D. (2006). ICT Training: INASP Workshops for African University staff. *Information Development, (22)2, 116-122.*

Borrego, *et al* (2007). Use and Users of E-journals at Catalan Universities: *Journals of Academic Librarianship*, 33(1) 697-75.

Bozimo, D.D. (2007). Paper Presented at the eIFL.Net Workshop on Capacity building, University of Jos Nigeria.

Chifwepa, V. (2003).The Use of the Intranet and Internet by Teaching Staff of the University of Zambia.*African Journal of Library, Archives & Information Science*, 13(2), 119-132.

Dai, L. *et al* (2000). China Academic Library and Information Systems: An Academic Library Consortium in China, *InformationTechnology and Librarian*

Darkwa, O. and F. Mazibuko (2000). Creating Virtual Learning Communities in Africa: Challenges and Prospects *Peer Review Journal onthe Internet Vol. 5*, No.5 (http://firstmonday.org/issues/issue5_5dakwa/index.html, *Accessed on 16thApril 2010.*

Ellis,D. Oldman,H. (2005). The English literature researcher in the Age of Internet. *Journal of Information Science Vol.31 No.*

Faborade, M.O. (2007). Paper Presented at eIFL.Net Workshop, University, Ill-Ife, Nigeria.

Falk, H. (2005). State Library Databases on Internet. The E-library, 23(4), 492-498.

Gakibayo, A. (2001). Internet Usage among Academic Libraries: A Case of Mbarara University, *BLIS dissertation*; Makerere University.

Gbaje, E. S. (2005), Setting up and Managing ICT laboratory in a Nigerian Library School: Ahmadu Bello University, Zaria Experience. *African Journal of Library, Archives & Information Science,* (15)1, 51-58.

Gbaje, E. S. (2007). Provision of Online Information Services in Nigerian Academic Libraries: Journal of Nigerian Library Association, vol. 40.

Gwynn, S. and Rosenberg, D. (2005).*Accessing Information in Developing Countries: El*ectronic Resources and the College of Education Workshop Handbook. Oxford: International Network for the Availability of Scientific Publications (INASP).

Haridason, S. and Khan, M. (2009). Impact and Use of E-resources by Social Scientist in National Social Science Documentation Centre *(NASSDOC),The Electronic Library*, 27(1) 117-33.

Heseltine, R. (2000). Developing Information Skills for Students: Whose Responsibility? Academics? In: SCONUL-Seven Pillars of Wisdom? Good Practice in Information Skills Development. Proceeding of a Conference Held at the University of Warwick on 2nd -7th July, 2000, 74-77.

Ibrahim, A. E. (2006). Use and Perception of Online Databases in Islamic Private Universities, *Library*, 54(1) 18-29.

Islam, M. and Habiba, U. (2015). "Using Pattern of Internet and E resources by Student and Faculty Members of a Private in Bangladesh", American Journal of Educational Research, vol 3, no.5 pp. 541-546

Jensen, M. (2007). Information communication (ICTs) in Africa: a Status Report, Paper presented at the Third Task Force meeting of the UN ICT Task Force; New York.

Katundu, D. (2002).*Mainstreaming Information literacy (IL) Across University Curricula: an Ignored Necessity or Luxury?* A Study of Public UniversityLibraries: A Paper Presented to the Conference of East African, Public University Librarians, 17th -19th October 2002, Bagamoyo- Tanzania.

Kinengyre, A. A. (2007).*The Effect of Information Literacy on the Utilization of E-resources in Uganda*. The Electronic Library, Vol. 25 No.3 pp. 238-341.

Lazinger, S.S, Bar-lian, J., Peritz, B.C. (1997). Internet Use by Faculty Members in Various Disciplines: a Comparative Case Study, *Journal of the American Society for Information Science* Vol. 48 No. 8, pp.508-18,

.

Majid, S. (2000). "Computer Literacy and Use of Electronic Information Sources by Academics a Case study of International Islamic University Malaysia" *Asian* 8(4), 100-111.

Manda, P.A. (2005). Electronic Resource Usage in Academic and Research InstitutionsinTanzania*Information Development: (21)4, 269-282.*

Missen, C. (2005). The African Universities Library Project, WiderNet.org Available at: WWw.widernet.org/proposals/AULP.htm (accessed on 8 May 2010).

Mortenson Report (2005).*Developing Strong college of Education Libraries in Nigeria: A Report for the MacArthur Foundation*. Urbana-Champaign: Mortenson Center for International Library Programs at the University of Illinois.

Muswazi, P. (2005). The Integration of Print and Electronic Sources: A Case Study of the University of Swaziland Library. *African Journal of Library, Archives & Information Science*, (15)1, 59-66.

Ojo, R. A. and Akande, S. O. (2005). Students' Access Usage and Awareness of Electronic Information Resources at the University College Hospital, University of Ibadan, Nigeria. *Lagos Journal of Library and Information Science*, (3)1, 16-24.

Okebukola, P. (2004). Okebukola Draws Roadmap for ICT in Higher Education by Bill Okonedo. *Businessday Online*, December 10, pp. 1-2. Retrieved April 4, 2005, from http://www.Businessdayonline.com/index.php? Article=482 2.

Omoniwa, U.A. (2003). Twenty Years of Academic Status (1983 2001) for Libraries in ABU Library System: The Gains & Pains. Nigerian Libraries 37 (1) p 7 70.

Omotayo, B. O. (2006). A survey of Internet Access and Usage Among Undergraduates in an African University.*International Information & Library Review*, 38(4), 215-224.

Pejova, Z. (2006). Information Literacy: An Issue which Requests Urgent Action in Developing Countries and Countries in Transition; White Paper Prepared for UNESCO, the U.S. National Commission on Libraries and Information Science and the National Forum on Information Literacy, for Use at the Information Literacy Meeting of Experts, Praque,theCzch.Republic.http://WWW.nclis.gov/libinter/infolitconf&meet/papers/aiyepu ku Fullpaper.pdf. Accessed on June 2011.

Ranjeev, et al (2015). Use of Internet and Electronic Information Resource, American Journal of Educational Research: vol 3, No. 7,2015, pp 886-892.

Ray, K. and Day, J. (1998). Student Attitudes Towards Electronic Information Resources. Information Research, 4(2). Available at: http://informationr.net/ir/4-2/paper54.html.

Rowley, J. (2000). The Question of Electronic Journals. Library Hi Tech. 18(1), 4

Said, A. (2005). Marketing E-resources to University Staff and Students in Pakistan. INASP Newsletter, 30 Autumn.

Sharma (2004).Hariprisad, Consortial Access of Scholarly E-resources on S&T in India, Current Science, 97(7)984

Shuling, W. (2007). Investigation and Analysis of Content Use of Electronic Resources in Universities Library Management, V0l. 28 1 3: ½, pp.72 88

Stephen, O. (2012). Awareness and Use of Electronic Resources by Library and Information Science Students in Delta state University, Abra, Nigeria Library. Vol 45, Nov (2). Dec 2012.

Tiefel, V. (2004). The Gateway to Information: A System Redefines: How Libraries are Used *American Libraries* Vol. 22 No. 9.

Tsakonas, G. &Papatheodorou, C., (2006). Analyzing and Evaluating Usefulness and Usability in Electronic Services, Journal of Information Service, Vol. 32 No. 5, pp.400

Zhang,*et al* ...(2011).Electronic Databases Usage in Indian Scenario, Libri Vol. 21, No. 4

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter described the Research Methodology that were used in carrying out the study based on the following sub headings:

3.2 Research Method Adopted for the Study

3.3 Population of the Study

3.4 Sample and the Sampling Techniques

3.5 Instrument for Data Collection

3.6 Validity of the Instrument

3.7 Reliability of the Instrument

3.8 Procedure for the Data Collection

3.9 Procedure for Data Analysis and Discussion

3.2 Research Design

This study employed a survey research design known as *ex post facto. Ex post facto* design is a research design where the variables are not directly manipulated by the investigator. Cherry (2015) asserted that *Ex post facto* designcan be used to collect information on a wide range of things including facts, relationships, attitudes, practices, processes and trends or

compare variables Data were collected after the occurrence of the presumed causes. It is concerned with exploring the simple cause-and-effect relationship in the promotion and use of e-resources in Colleges of Education Libraries.

3.3 Population of the Study

The population of this study consisted of staff of customer service unit, ICT unit and users in the Federal Colleges of Education Libraries in North Western States of Nigeria. The Federal Collegesof Education Libraries are presented below:

Table 3.1 Population of the Study

College Name	Library Staff		Users	Total
	Customer service	ICT		
FCE KANO	11	5	101	117
FCE KATSINA	9	6	80	95
FCE ZARIA	9	5	136	150
FCE BICHI	7	4	74	8
FCE GUSAU	8	7	79	94
Grand Total	44	27	470	541

3.4 Sample and Sampling Technique

The three Colleges of Education were selected as sample which include FCE Kano, FCE Katsina, FCE Zaria because they are the first generation Federal Colleges of Education in North Western States of Nigeria. The information needed for the study from the users can only be provided at this level from a specific target within the College of Education Libraries.

Accordingly, purposive sampling technique was used to sample the users in the Federal in the College of Education Libraries studied.

As noted by Burchinal and Badri (2005), "for population under 1,000, a sampling ratio of about 30% of the cases is recommended. For a population of 10,000 or so, a 10% ratio is sufficient. As the population further increases to 15,000 or larger, 1% of the cases can produce very accurate results" the required sample size is inverse to the size of the population" Thirty per cent (30%) of the user groups was used as sample.

The sample size was also considered justifiable as it is in conformity with Edem's position (2005) as cited by Issa, Amusan and Daura (2009) that used Krejicie and Morgan's samplingformula. The formula which was referred to by Edem, suggests "a sample size of 384 to be sufficient for a population of 100,000; 370 for 10,000 and 248 for 700" (Issa, Amusan and Daura, 2009). The entire customer service and ICT staff were used as sample since their number is less than 200 while 30% of the user group was sampled. 140 questionnaires were distributed that means 95 were distributed to the library users and 45 to the library staff respectively.

3.5 Research Instrument for Data Collection

The instrument used for collecting data in this research was questionnaire. Two sets of questionnaire were used for this study. The first questionnaire was designed for the librarystaff (staff of Customer Service Division and ICT Division). It consisted of questions on promotion of e resource while the second questionnaire was for the library users and it consisted of questions on utilization of e resource. The researcher used two sets of questionnaire because the library users don’t promote e resources they only utilize them; it is only the library staff that manage and promote e resources.

3.6 Validity of the Instrument

According to Muhammad (2005), "the instrument for data collection is said to be valid when it is able to produce correct responses from the subjects of the sample study". In order to ensure that the questionnaire is capable of eliciting the required data and information from the respondents, the instrument was subjected to face validation. The researcher presented a draft instrument to an expert, senior colleagues and supervisors for validation.

3.7 Reliability of Instrument

Reliability of the instrument according to is the extent to which a test is consistent in performing what it is supposed to do. It refers to as the degree of internal consistency of a measuring instrument. Reliability also refers to the consistence the scores obtained, from one set of items to another. The Kuder-Richardson approach of the internal consistency method was used in this study to obtain the reliability coefficient. A pilot study was conducted at the Shehu Shagari College of Education Sokoto, with the help of a research assistant, to test the instrument. A reliability coefficient of 0.78 was obtained, which indicated that the instrument is reliable

3.8 Procedure for Data Collection

The copies of the questionnaire administered were distributed to the respondents by the researcher and a research assistant from each division and a period of four weeks were used by respondents to fill in the questionnaires and returned to the researcher

3.9 Procedure for Data Analysis

The statistical techniques used in the analysis and interpretation of data were the frequency counts, tables, charts and percentages, Chi square was used to test the hypothesis.

REFERENCES

Burchinal, L.G. and Badri, A. E. (2005).Methods for Social Research in Developing Countries. Omdurman, Sudan: The Ahfad University of Women.

Cherry, K. (2015). What is survey? Retrieved from http://phycology.anout.com/accessed on 19/3/201 .

Issa, A.*et al* (2009). Effects of information literacy skills on the use of e-library resources among students of the University of Illorin, Kwara State, Nigeria.*Library Philosophy and Practice*

Muhammad, Z. (2005).*The Role of Supervisory and Supervisory Committee in Research Work.*Paper Presented at Workshop on Postgraduate Students Research Supervision, Organized by the Postgraduate School, A.B.U. Zaria. (Publication manual pp. 21-22*).*

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presented the data collected for the study. Analysis and discussions of the data and findings were also presented. The Chapter is presented in the following sub-headings:

4.2 Response Rate of Library staff and Users;

4.3 Demographic Analysis of the respondents;

4.4 Descriptive Analysis

4.5 Inferential Analysis

4.2 Response Rate of Library Staff and Users

Out of the 140 copies of the questionnaire distributed to the respondents (45 to Library staff and 95 to Library Users), a total of 130 (92.7%) copies, (40 from library staff and 90 from the users) were returned duly completed and found usable for this study. The response rate was realized due to the fact that the research assistants were employed in the respective libraries studied. Besides, the respondents were given up to four weeks within which to complete and return their copies of questionnaire. The response rate of Library Users in Federal Colleges of Education inNorth Western States is shown in Table 4.1

Table 4.1: Response Rate of Library Users According to their Institutions

Institutions	Status	Questionnaire Distributed	Questionnaire Returned	% of Questionnaire Returned
FCE KN	Library Staff	16	15	10.7
	Users	30	29	20.7
FCE KTN	Library Staff	15	14	10
	Users	24	21	15
FCE ZARIA	Library Staff	14	11	7.8
	Users	41	40	28.5
TOTAL		140	130	92.7%

Questionnaire Administered =140 Questionnaire Returned =130

From Table 4.1, it can clearly be seen that there is variation in the response rate from library users. The variations in the response rate are due to the fact that the population size of Library Users of these institutions studied is not of equal proportion. From the Table, the Federal College of Education, Kano and Federal College of Education, Zaria have more of library users than the Federal College of Education, Katsina. The Table also revealed that the Federal Colleges of Education Kano has more library staff than the Federal Colleges of Education Zaria and Katsina.It can thus be concluded that Federal College of the Education Zaria has more of library users while Federal College of Education Kano has more of library staff.

4.3 Demographic Analysis of the Respondents

The researcher attempted to find out the gender distribution of the Library Users studied so as to obtain a clear picture of the gender categorization of the Academic Library Users in Federal Colleges of Education North western States. The Table 4.2 shows the gender distribution of the library users studied.

Table 4.2 Gender Distribution of the Respondents

GENDER	FCE KANO		FCE KTN		FCE ZARIA		TOTAL	
	F	%	F	%	F	%	F	%
MALE	35	79.5	30	85 .7	41	80.4	106	81.5
FEMALE	9	20.5	5	14.3	10	19.6	24	18.5
TOTAL	44	100	3	100	51	100	130	100

The Table 4.2 has shown that there are more male respondents 106 (81.5%) than female respondents of 24 (18.5%). This revealed that there are more male Library Users than female across the surveyed college libraries in North western States.

4.4 Descriptive Statistical Analysis

This section presented the data collected and analysed using descriptive statistics. The data analysed were collected using 5 research questions which guided this study, frequency scales and percentages were used in the computation of the data collected and analysed.

ANALYSIS ON LIBRARY STAFF' RESPONSES

4.4.1 Types of E-Resources Available in Federal Colleges of Education Libraries Studied

The research aimed at identifying the various types of electronic information resources available in Federal Colleges of EducationLibraries. In order to achieve this, a list of electronic information resources was outlined for the respondents to tick as many as available in their respective institutions. The Table 4.3 and Fig 4.1 showed the types of electronic information resources available.

Table 4.3 Types of E-resources Available in Federal Colleges of Education Libraries

Types of e-resources Available	Institutions					
	FCE Kano		FCE KTN		FCE Zaria	
	F		F		F	
AGORA	√		√		√	
AJOL	√		√		√	
ARDI	√		√		√	
DOAJ	√		√		√	
EBSCO HOST	√		√		√	
HINARI	√		√		√	
JSTOR	√		√		√	
OARE	√		√		√	

KEY

FCE Kano: Federal College of Education Kano

FCE Zaria: Federal College of Education Zaria

FCE KTN: Federal College of Education Katsina.

√ : Available

Table 4.3 showed that AGORA, AJOL,ARDI, DOAJ, EBOHOST, HINARI,JSTOR, OARE, and were theelectronic information resources available in Federal College of Education Kano ,Federal Collage of Education Katsina and Federal College of Education Zaria.A further observation indicated that BIO ONE, BIOMED, FUBMED, LANTEAL,PROQUEST, UGCINFONET that were mentioned in the instrument are completely not available in Federal Colleges of Education libraries studied. However, this finding showed that AGORA,AJOL,

ARDI, DOAJ,EBSCOHOST HINARI, JSTOR, OARE, , are the electronic resources available in the Federal Colleges of Education in the North-Western States of Nigeria.

4.4.2 Type of E-resources Promoted in the Federal Colleges of Education Libraries

This research question sought to find out the electronic information resources promoted by the Federal Colleges of Education Libraries. In doing this, a list of options were provided for the respondents to indicate the resources. The responses were captured and presented in Table 4.4 and Fig 4.1

Table 4.4 Type of E-resources promoted in the Federal Colleges of Education Libraries

Types of e-resources	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		TOTAL	
	F	%	F	%	F	%	F	%
AGORA	3	7.5	2	5	2	5	7	17.5
AJOL	7	17.5	3	7.5	4	10	14	35
DOAJ	5	12.5	9	22.5	3	7.5	17	42.5
HINARI	0	0	0	0	2	5	2	5

KEY

FCE Kano: Federal College of Education Kano

FCE Zaria: Federal College of Education Zaria

FCE KTN: Federal College of Education Katsina

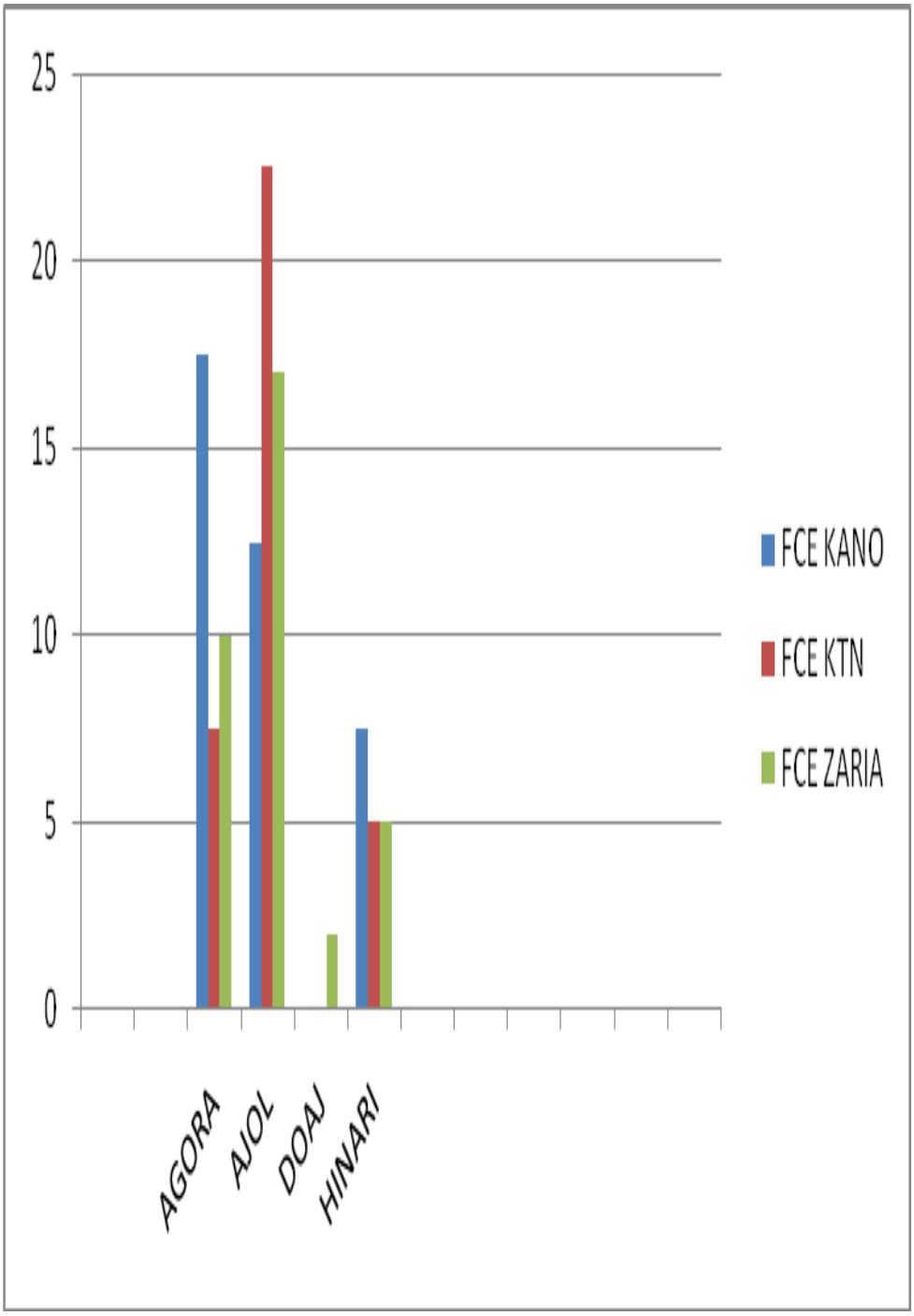


Figure 4.1 Types of e-resources promoted in the Zaria, Kano and Katsina Federal Colleges of Education Libraries

Table 4.4 and Fig 4.1 revealed that AGORA, AJOL, and HINARI were the types of electronic information resources being promoted by the Federal Colleges of Education Kano, Katsina and Zaria.2 (5%) of the respondent at indicated that DOAJ was also promoted in Federal College of Education Zaria..

However, JSTOR, UGCINFONET, LANTEAL, PROQUEST, EBCOHOST, BIOMED, UGCINFONET and FUBMED that were mentioned in the instrument were completely not promoted in the Federal College of Education Kano ,Katsina and Zaria

However, this finding showed that AJOL, DOAJ, HINARI and AGORA were the electronic information resources being promoted in the Federal Colleges of Education Libraries in North western States of Nigeria.

4.4.3 Extent of Promotion of Electronic Information Resources in the Libraries Federal Colleges of Education in North-western States

This section sought to find out the extent of promotion of electronic information resources in the libraries of Federal Colleges of Education in North-western States of Nigeria.This is presented in table 4.5.

Table 4.5 Extent of Promotion of Electronic Information Resources in the Libraries Federal Colleges of Education in North-western States

E Resource	Institutions								Total	
	Very Often		Often		Undecided		Never			
	F	%	F	%	F	%	F	%	F	%
AGORA	12	30.0	13	32.5	10	25	5	12.5	40	100
AJOL	10	25	13	32.5	10	25	7	17.5	40	100
DOAJ	10	25	6	15	4	10	20	50	40	100
HINARI	15	37.5	10	25	5	12.5	10	25	40	100

From Table 4.5, HINARI and AJOL had the highest frequency of 15 (37.5) and 13(32.5) respectively while AGORA and DOAJ with lower frequency of 12 (30) and 10(25) respectively. This finding related with that of Abdul man (2008) who reported that HINARI and AJOL were highly promoted in the library he studied. Also, OARE, ARDI, EBSCOHOST among others that were mentioned in the instrument were not promoted compared to others. The implication of this finding is that HINARI and AJOL satisfy the information needs of the users. This means that the institutions should continue to promote these resources in order to continue to satisfy the need of the users.

4.4.4 Types of Media Employed to Promote theUse of E-Resources in FederalCollegesofEducation Libraries in North Western States of Nigeria

This is to find out the media used to promote the use of electronic information resources in the Federal Colleges of Education Libraries. In doing this, lists of media were provided for the respondents to indicate the media used. The responses were captured and presented in table 4.6 and Fig 4.2.

Table 4.6Media Employed to Promote the Use of E-resources in Federal Colleges of Education Libraries in North Western States of Nigeria

Types of Media Available	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		TOTAL	
	F	%	F	%	F	%	F	%
Library orientation	8	20	9	22.5	7	17.5	24	60
Notice Board	7	17.5	5	12.5	4	10	16	40

KEY

FCE Kano: Federal College of Education Kano

FCE Zaria: Federal College of Education Zaria

FCE KTN: Federal College of Education Katsina

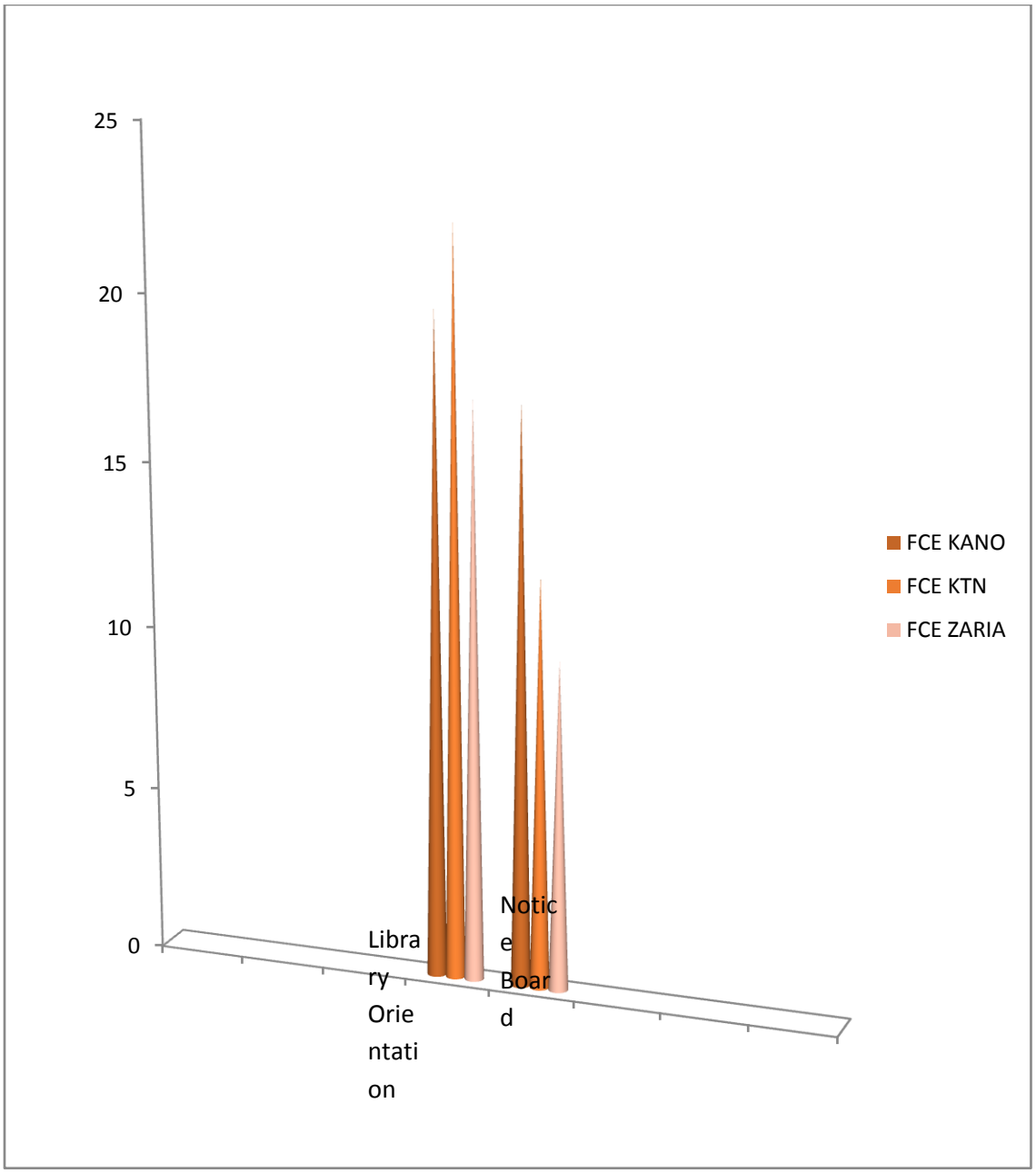


Figure 4.2 The Media Used to Promote the Use of E-resources in Zaria, Kano and Katsina Federal Colleges of Educations Libraries

Table 4.6 and Fig 4.2 showed that Library Orientation and Notice Board were the types of media employed to promote the use of e-resources with the frequency of over 60% and 40% response scores respectively in the Federal Colleges of Education Libraries studied. However, Magazines, Radio and TV, Newspaper, library webpage, mobile phones and exhibition that were mentioned in the instrument were completely not used to promote the electronic information in the libraries studied. This finding showed that Library orientation and Notice Board were the only media used to promote the use of e-resources in the Federal Colleges of Education Libraries.

4.4.5 Strategy Adopted to Enhance the Use of E-resources in the Federal Colleges of Education North Western States of Nigeria

The research question aimed to find out the strategy adopted to enhance the use of electronic information resources in the Federal Colleges of Education libraries studied. In order to obtain relevant data, the respondents were asked to indicate the strategies they adopted in enhancing the use of electronic information resources in their respective institutions and their responses were presented in Table 4.7 and Fig 4.3

Table 4.7 Strategy Adopted to Enhance the Utilisations of E-resources in the Federal Colleges of Education North Western States

Strategy adopted	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		TOTAL	
	F	%	F	%	F	%	F	%
Use of exhibition and displayed	0	0	0	0	1	2	0	0
Conducting periodic orientation	4	10	3	7.5	2	5	19	25
Organized seminars and workshop	4	10	4	10	2	5	10	25
Good Human relations	5	12.5	7	17.5	5	12.5	17	42.5
Use of bulk message	0	0	0	0	0	0	0	0
Creating electronic advertisement	2	5	0	0	0	0	2	5

KEY

FCE Kano: Federal College of Education Kano.

FCE Zaria: Federal College of Education Zaria.

FCE KTN: Federal College of Education Katsina.

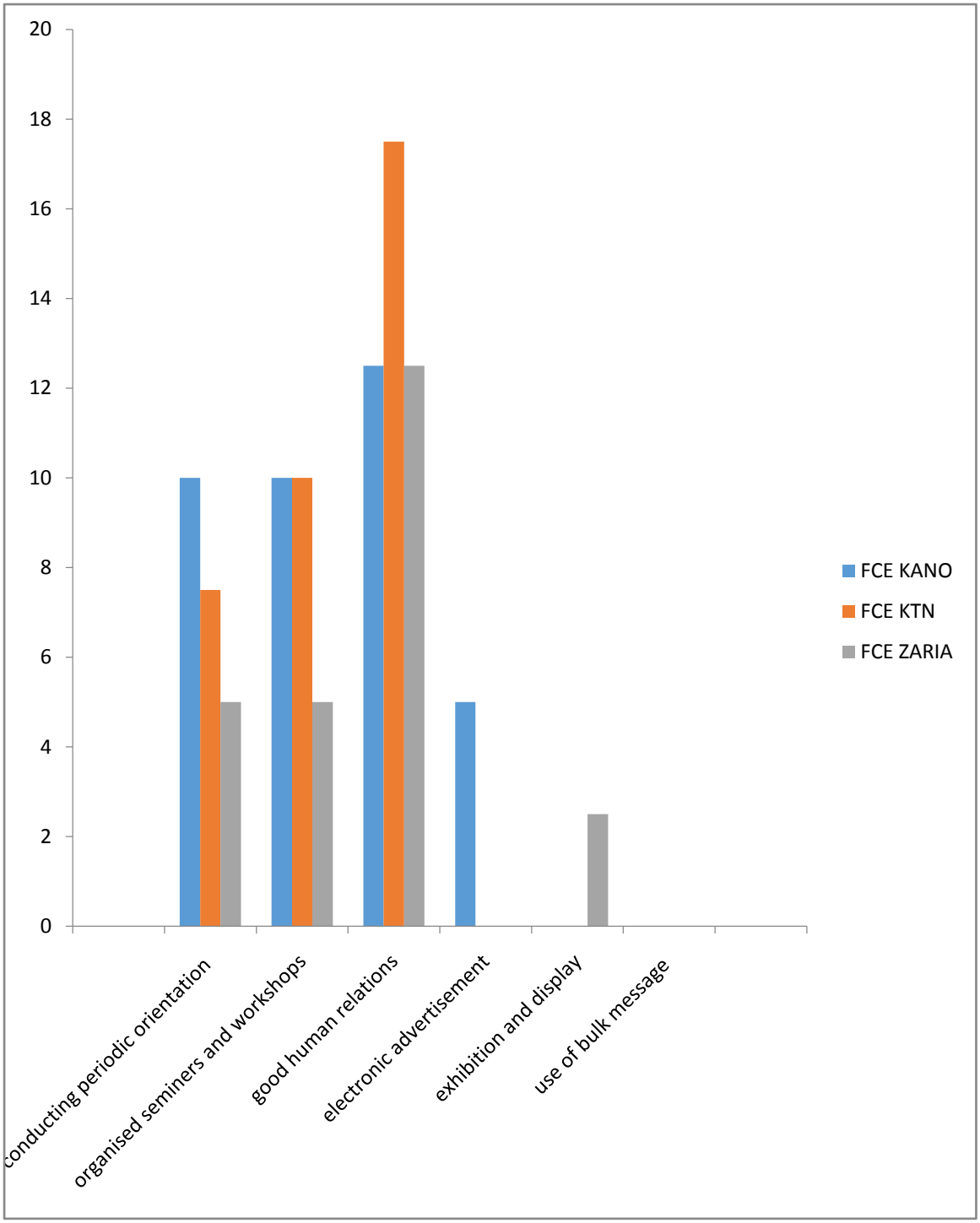


Figure 4.3 Strategy adopted to enhance the use of e-resources in the Federal College of Education North western States

Table 4.7 and Fig 4.3 showed the responses of the respondents on the strategies adopted to enhance the use of e-resources in the Federal Colleges of Education libraries in North Western States of Nigeria. It was discovered that conducting periodic orientation, organized seminars and workshops and good human relations were the major strategies adopted to enhance the use of e-resources in the libraries studied. A further observation from the Table showed that majority of the respondents with frequency of 42.5%response scores indicated that human relations is the major strategy adopted to enhance use of electronic resource.

However, in Federal College of Education Zaria, few number of the respondents indicated use of exhibition and display and creating electronic advertisement with the least frequency 2.5% and 5% respectively. This findings showed that there are variations in terms of strategies used to enhance the use of electronic information resources in Federal Colleges of Education studied in the North Western states of Nigeria.

This collaborates the finding of Philip (2014), who stated that word of mouth campaign is the best mechanism for promoting the use of library service

ANALYSIS ON LIBRARY USERS' RESPONSE

4.4.6 Types of E-Resources Used by Users of Federal College Education Libraries in North Western States of Nigeria

The research question aimed to find out the types of electronic information resources used by users in the Federal Colleges of Education libraries studied. In order to achieve this objective, the respondents were asked to indicate the e-resources used in their respective institutions as presented in Table 4.8 and Fig 4.4

Table 4.8 Types of E-Resources Utilised by Users of Federal College Education Libraries in North Western States of Nigeria

E-resources Used	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		TOTAL	
	F	%	F	%	F	%	F	%
AGORA	8	8.8	7	10	10	11	25	28
AJOL	19	21	10	11.1	18	20	47	52
ARDI	0	0	2	2.2	0	0	0	2.2
DOAJ	0	0	0	0	4	4.4	4	4.4
HINARI	1	1.1	0	0	8	8.8	9	10
JSTOR	0	0	0	0	0	0	2	2.2
OARE	1	1.1	0	0	0	0	1	1.1

KEY

FCE Kano: Federal College of Education Kano

FCE Zaria: Federal College of Education Zaria

FCE KTN: Federal College of Education Katsina

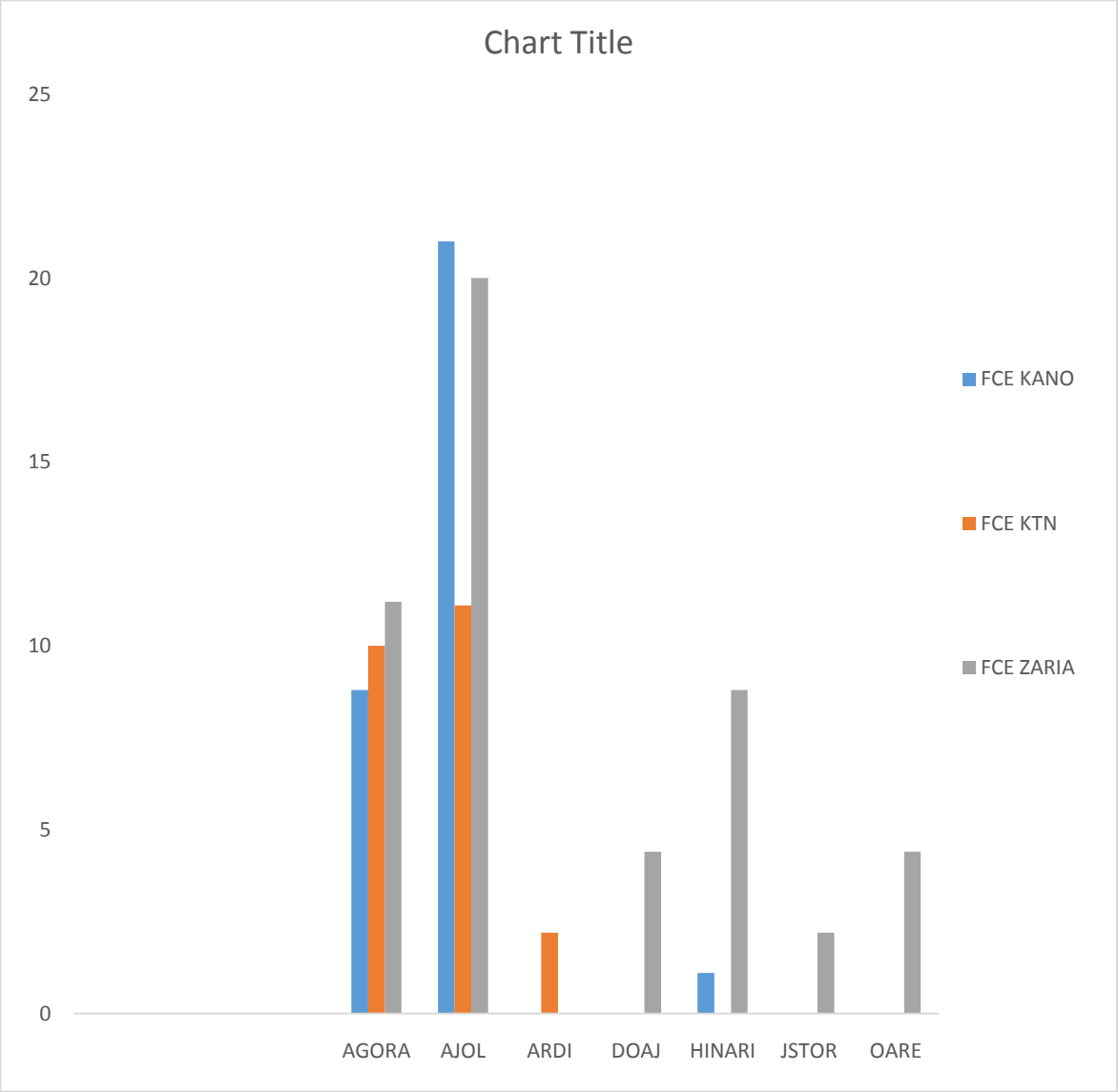


Figure 4.4 Types of E-resources Utilized by Users of Federal College Education Libraries in North Western States of Nigeria

Table 4.8 and Fig 4.4, showed that AJOL and AGORA were the electronic information highly utilized in the Federal Colleges of Education North western States of Nigeria with the highest frequencyof 52% and 28% response scores respectively.Whereas HINARI and DOAJ among others were the electronic information less utilized in the Federal College of Education libraries with the least frequency of less than 10% and 4% response scores respectively. However, BIO ONE, EBSCOHOST, PROQUEST, BIOMED, FUBMED and UGCINFONET that were mentioned in the instrument were completely not utilized by the respondents of Federal Colleges of Education libraries studied in North western States of Nigeria.

The above finding is not surprising because even though today's libraries provide a lot of online database resources to support academic activities, they are underutilized due to lack of awareness of their availability and the information literacy skills . However, this finding is corroborated that of Kinengyere (2007) who found out that the availability of information does not necessarily mean actual use, because the academicians may not be aware of the availability of such resources and they may not know how to access the resources.

4.4.7How E-Resource are Utilized

A follow-up question was asked to indicate how e-resources are being utilised in Federal Colleges of Education libraries studied. In order to do this, respondents were provided with options to tick as many as possible in Table 4.9

Table 4.9 How E-resources Are Utilized in Federal College of Education Libraries Studied in the North Western States of Nigeria

Ways by which e-resources are used	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		Total	
	F	%	F	%	F	%	F	%
Direct reading from the net	8	8.9	4	4.4	12	13.3	24	26.7
Downloading the electronic resources	8	8.9	4	4.4	13	14.4	25	27.8
Mere cut and paste	2	2.2	2	2.2	4	4.4	8	8.9
Saving the document in a storage media	5	5.6	4	4.4	4	4.4	13	14.4
Printing the content of the document	4	4.4	3	3.3	8	8.9	13	16.6
Downloading the forwarded from e-mail	2	2.2	2	2.2	1	1.1	5	5.6

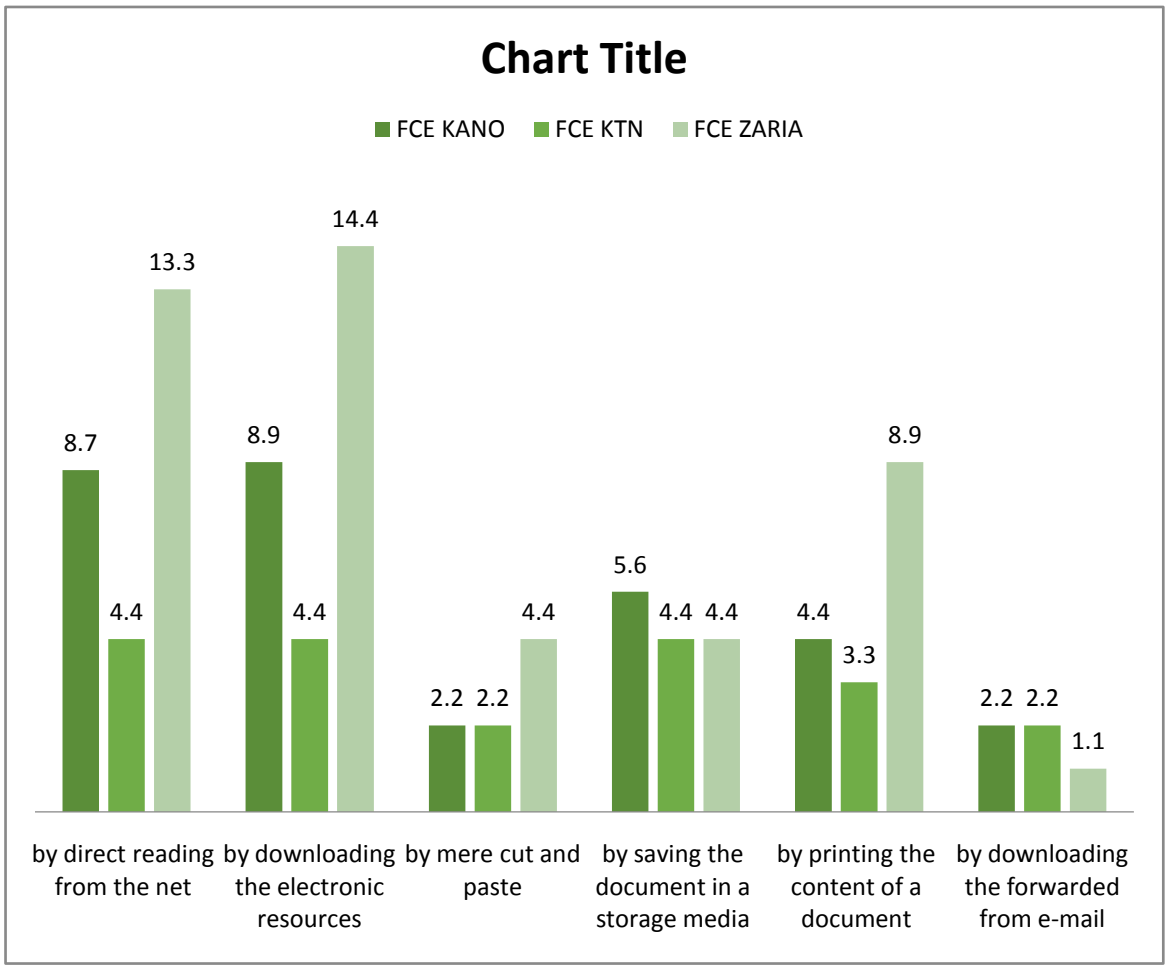


Figure 4.5 Ways of utilization of e-resources in Zaria, Kano and Katsina Federal Colleges of Education.

Table 4.9 and Fig 4.5 above revealed that the library users used electronic information resources through direct reading from the net, downloading the information resources and printing the content of the document with the highest frequency of over 16.6%, 26.7% and 27.8% res response scores respectively. Whereas the use of cut and paste and saving the document in the storage devices were found to be the least means of use of electronic information resources with the least frequency of 8.9% and 14.4% response scoresrespectively. However, from the result, it showed that majority of the respondents preferred reading from the net and downloading the information resources.

This finding correspond with Ukashatu (2013) who discovered that directing reading from the net and printing the content of the document are the major ways in which e resources are utilized.

4.4.8 Extend of Use of Electronic Resource by Users

As follow up to the above research question the researcher further sought to determine raised in to outline the frequency of used electronic information resources by the library users of Federal Colleges of Education libraries studied. In order to achieve this, the respondents were asked to tick the relevant queries using liked scale of measurement. The responses of the respondents are presented in Table 4.10

The Table 4.10 has shown the responses of the respondents on the extent of promoted electronic information resource utilisation by the users of the Federal College of Education libraries studied. It was discovered that majority of the respondents in both the FCE Katsina and FCE Kano indicated that the promoted electronic information resources outline to them were found not useful. However,AJOL and AGORA were found to be very useful with the frequency of over 54% and 24% response scores respectively followed by HINARI and DOAJ 14.4% and 6.6% response score respectively. However, JSTOR, UGCINFONET, LANTEAL, PROQUEST, EBCOHOST, BIOMED, UGCINFONET and FUBMED that were mentioned in the instrument were completely not promoted in the Federal College of Education Kano ,Katsina and Zaria

The above finding from institutions showed that majority of the library users were not using Electronic information resources due to lack of awareness of the resources and lack of computer literacy skills. This is not surprising with A t-test analysis conducted by Ibrahim (2006) to measure use of e-resources and detect factors that deter effective and frequent use. A criterion of less than 0.05 was used to determine the significance of use. Figures show that frequency of use of e-resources was significantly low for most types of e-resources .

4.4.9 Challenges to the Utilisation of Electronic Resources Promoted

One of the objectives of this research is to identify the major challenges to utilization of electronic information resources being promoted by the Federal College of Education libraries studies. In order to obtain the answers, the respondents were asked to indicate their challenges in the utilization of electronic information resources in their respective institutions as outline in the Table 4.11 below;

Table 4.11 Challenges to Utilization of Electronic Information Resources Users of Federal College of Education Libraries in North Western States of Nigeria

Challenges	Institutions							
	FCE Kano		FCE KTN		FCE Zaria		Total	
	F	%	F	%	F	%	F	%
Not computer literate	2	2.2	1	1.1	2	2.2	5	5.
Power supply	7	7.7	5	5.5	9	10	21	24.4
Slow internet connectivity	13	14.4	8	8.8	23	25.5	44	48.8
Poor ICT facilities	3	3.3	2	2.2	3	3.3	8	8.8
Lack of information literacy skills	4	4.4	3	3.3	5	5.5	12	13.3

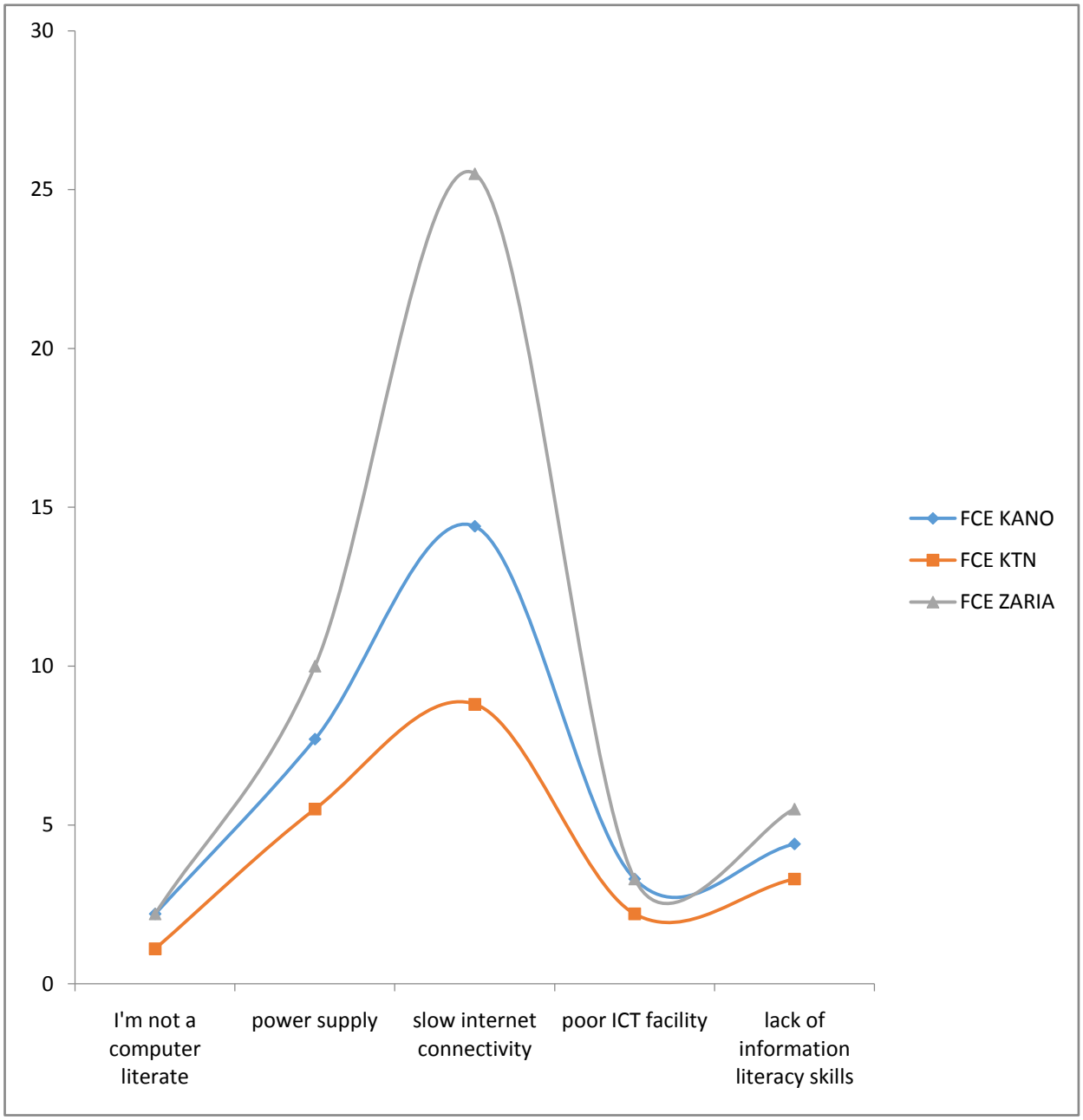


Figure 4.6 Challenges to the Utilization of electronic Information Resources by Users of Federal College of Education Libraries in North Western States of Nigeria.

Table 4.11 and Fig 4.6 have Shown that majority of the respondent 44(48.8%) indicated slow Internet connectivity as the major challenge they encounter in the utilization of electronic resources in the Federal College of Education libraries studied. This finding correspond with that of Manda (2005) and Chifwepa (2005) who discovered that internet slow speed is a problem in utilization of electronic resources. The implication of this findings is users are discouraged from use of e-resource.

The table also revealed that inadequate power supply and lack of information literacy skill were indicated as the challenges to the utilization of electronic resources by the users of the libraries studied with frequency of 21 (24%) and 12 (13.3%) response scores respectively. The prevalence of this challenges is also reported in similar studies such as Gbaje (2005) and Motenson report (2005) who found out that lack of power supply is a major problem for users of electronic resource. This result falls in line with Hafeez (2006) identified various problems users face while using electronic resourcesasslow internet connectivity, power supply, lack of information literacy skills, Poor ICT facilities and lack of awareness of most e-resources are significant contributors for the low patronage of customers.

4.5 Inferential Analysis

Hypothesis One

Ho1 The promotion of electronic resources in Federal Colleges of Education libraries in the North Western State of Nigeria has no significant influence on their utilization

Table 4.12: Influence of Promotion of Electronic Information Resources on their Utilisation

Items	Level of Promotion				Total
	Very Often	Often	Undecided	Never	
AGORA	(15)	(10)	(5)	(10)	(40)
	12.0	13.0	10.0	5.0	40.0
	(0)	0	0	(0)	(0)
	0.0	0.0	0.0	0.0	0.0
	(0)	(0)	(0)	(0)	(0)
	0.0	0.0	0.0	0.0	0.0
AJOL	10	15	(15)	(0)	(40)
	12.0	13.0	10.0	5.0	40.0
	(10)	(15)	(15)	(0)	(40)
	12.0	13.0	10.0	5.0	40.0
	(11)	(19)	(10)	(0)	(40)
DOAJ	12.0	13.0	10.0	5.0	40.0
	(11)	(19)	(10)	(0)	(40)
HINARI	12.0	13.0	10.0	5.0	40.0
	(0)	(0)	(0)	(0)	(0)
	0.0	0.0	0.0	0.0	0.0
	(0)	(0)	(0)	(0)	(0)
	0.0	0.0	0.0	0.0	0.0
	(0)	(0)	(0)	(0)	(0)
	0.0	0.0	0.0	0.0	0.0
	(5)	(5)	(10)	(20)	(40)
	10.0	6.0	4.0	20.0	40.0
	(0)	(0)	(0)	(0)	(0)
	0.0	0.0	0.0	0.0	0.0

Key:Chi-square calculated = 31.859;Df = 16, p- value = 0.000
Note: count =observed count, the figures in the bracket are the expected counts

Table 4.11 showed the analysis of Chi-square on promotion of electronic information resources in Federal Colleges of Education libraries in North-western States. From the analysis, it was found out that the p value was 0.000, Chi-square calculated was31.859. Since the hypothesis was tested using α (0.05), this hypothesis that said the promotion of electronic resources in Federal Colleges of Education has no significance influence on their utilization has been rejected. This is because the p value obtained from the hypothesis was less than the alpha. The implication of this is that since the promotion of electronic information resources has influence on their utilization, as long as this promotion is increased, the rate of utilization of the resources will also increase.

References

Abdul et al (2009). Use of Online Databases by Faculty Members and Research Scholar of Jawaharlal Nehru University and JamiaMilliaIslamia, New Delhi India: Survey, the International Information & Library Review (2009) 72-78

Hafeez. A. (2006). Availability and Use of Arabic Databases by Research Scholars of King Faisal Abdul-Azeez library, Jami'atul Islam Madina, Libri, 49(1)1-9

Ibrahim (2006). Use and Perception of Online Databases in Islamic Private Universities, Libri, 54(1) (2006)18-29

Madhhudha Khan, and Dhanavandan, E. (2008). Access and Use of Electronic Resources at Krishnasamy College of Engineering & Technology Library, Cuddalare. *Library Philosophy and Practice 2012.*Available at http://unilib.unl.edu, practice 2012

Ukashatu H. (2013). Access and Utilisation of Arabic online Database among Academics in A.B.U and B.U.K. (Unpublished Thesis A.B.U Zaria, Nigeria) .

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This Chapter provides the summary of the study, findings, conclusion and recommendations.

5.2 Summary of the Study

This study was carried out to investigate the Promotion and Utilization of Electronic Information Resources in Federal College of Education Libraries in North Western States of Nigeria.To do this, five research questions were formulated and one hypothesis was tested. The literature was reviewed according to the research question pattern.

Survey method was employed in the conduct of this study. A total of 130 (92.7%) representing 30% of the total population of the library customers and library staff in the Federal College of Education Libraries in North Western States (FCE Kano, FCEKatsina and FCE Zaria) were used for this study. The instrument used for data collection was questionnaire; the data collected for the study were presented and analyzed using both descriptive statistics and inferential statistics. Frequency distribution tables, percentages and charts were used for the descriptive statistics while chi square was used to test the hypothesis formulated and determine the areas of differences among the respondent of the Federal College of Education Libraries in North western States. The study found out that AGORA, AJOL, and HINARI were the types of electronic information resources available and promoted and utilized in Federal Colleges of Education Kano and Federal College of Education Zaria.

5.3 Summary of the Major Findings

Based on the data collected and analyzed for this study, the following are the major findings:

1. Out of fourteen electronic Information resources listed to the Library Users in the Federal College of Education North Western States, the study discovered that:
    a. AGORA, AJOL, ARDI, DOAJ, HINARI, OARE, JSTOR and EBSCOHOST were the electronic information resources available in Federal colleges of Education Libraries Kano, Katsina and Zaria.
2. On the types of electronic information resources utilized by the library Users in Federal college of Education libraries North Western States the study revealed that:
    a. AJOL, HINARI, AGORA JSTOR, and DOAJ were the electronic information utilized by library users in the FCE Kano, FCE Katsina and FCE Zaria.
3. The study revealed that: AGORA, AJOL, and DOAJ, HINARI were the types of electronic information resources being promoted in Federal Colleges of Education North Western States.
4. The study revealed that Library orientation and notice board were the types of media employed to promote the use of e-resources in the Federal Colleges of Education Libraries in North Western States.

a. On the strategy adopted to enhance the use of electronic information resources in Federal Colleges of Education Libraries. The study discovered that: Use of organized seminars and workshop, Friendliness to the library customers and Publication of library bulletin were the major strategies adopted to enhance the use of e-resources in the Federal Colleges of Education Libraries in North Western States of Nigeria.

5. On the extent of utilisation the study revealed that majority of the respondents in Federal Colleges of Education libraries indicated that AJOL and AGORA were the promoted electronic resources frequently utilised.
6. On the challenges faced by the library users in the utilization of electronic information resources listed to them, it as discovered that: slow internet connectivity in the institution, erratic power supply, insufficient computer skills and lack of information literacy skill were the major challenges in utilization of electronic information resources .

   The hypothesis revealed that promotion of electronic resources in Federal Colleges of Education has significant influence on their utilization.

5.4 Conclusion

Based on the findings of the study, it could be concluded that majority of library users were not utilizing the available electronic information resources being promoted by the libraries due to lack of awareness of their availability, lack of information literacy skills and problems associated with the resources such as slow internet connectivity, insufficient computer skills. Therefore, they need greater promotion of available electronic information resources and training on how to make use of the available electronic resources in the institution libraries in order to improve their teaching and research activities.

There is no doubt that if all of the library users would be aware of the existence and availability electronic information resources, there would be high usage, higher quality of teaching and research activities.

5.5 Recommendation

Arising from the findings of this study, the following recommendations are made:

1. Federal College Libraries of North western States of Nigeria should subscribe to more electronic resources such as UGCINFONET, PROQUEST, SCIENCE DIRECT inorder to increase the availability.
2. In order to increase the usability of available electronic information resources there is need for libraries to organise orientation programmes and training on how to use the electronic resources to both the staff and the library users.
3. The college libraries should promote more electronic resources such as EBSCOHOST, LANTEAL, BIO ONE among others so as to increase the level of awareness among their customers.
4. The college libraries should use the different media such as: social media and e-mails and strategy: such use of electronic billboard to attract users so as to enhance the utilization of electronic information resource.
5. There is a need for greater promotion of available electronic information resources by organizinginformation literacy programmes so as to increase the extent of utilization.
6. The college Libraries should be upgraded with all modern gadget of information technology WiFi access, printer, scanner ,webcam etc, and generator so as to reduce the challenges users encounter maximum utilize the facilities available. The staff of the college library, ICT Staff, or Computer centers must have the necessary skills to assist the library users and other researchers when they face any problem in utilization of electronic information resources.

Bibliography

Abdul M. (2009). Use of Online Databases by Faculty Members and Research Scholar of Jawaharlal Nehru University and JamiaMilliaIslamia, New Delhi India: Survey, the International Information & Library Review (2009) 72-78

.

Afolabi, M.O. (2007). Paper Presented at Electronic Information for LibrariesNetwork (elFL.net) Workshop Obafemi Awolo University, Ile-Ife, NigeriaOctober

Aina, L. O. (2002).*Research in information sciences; an African Perspective.* Ibadan: Stirling-Horden Publishers (Nig.).

Akintunde, S. (2006). *State of ICT in Tertiary Institutions in Nigeria*: Window on Universities. Paper Presented at the 44th Annual National Conference and AGM of the Nigerian Library Association, Abuja

Al Fadhli,M.S. and ,Johnson,I.M. (2006). "Electronic Document Delivery inAcademic and Research Organization in the Gulf States: a CaseStudy of Kuwait", *Information Development*, Vol. 22No.1, pp.32-37.

Badu, E.E. and Markwei, E.D, (2005). Internet Awareness and Use in the University of Ghana. *Information Development, (21)4, 260-268.*

Baridam, D. M. (2001).*Research Methods in Administrative Science.*Port Harcourt: Sherbrooke Associates.

Bar-Ilan J,*et al* (2003). Survey on the Use of Electronic Databases and Electronic Journals Accessed through the web by the Academic Staff of Israeli Universities, *Journal of Academic Librarianship*, 29(6) 346-361

Belcher, M, Gwynn, S. and Rosenberg, D. (2006). ICT Training: INASP Workshops for African College of Education staff. *Information Development, (22)2, 116-122.*

Borrego, A. Anglada L, Borrios M, and Cornellas N, (2007) Use and users of E-journals at Catalan Universities: *Journals of Academic librarianship*, 33(1) 697-75

Bozimo, D.D (2007). Paper Presented at the eIFL.Net Workshop on Capacity Building, University of Jos Nigeria

Burchinal, L.G. and Badri, A. E. (2005).Methods for Social Research in Developing Countries. Omdurman, Sudan: The Ahfad University of Women.

Busselle,R., Regan, J. ,Pinkleton,B and Jackson, K. (2000). Factors affecting Internet Use in a Saturated –Access Population, *Telematics and Informatics*, Vol. 16 No 1-2.pp.45-5.

Cherry, k. (2015). What is survey? Retrieved from http://phycology.anout.com/accessed on 19/3/201 .

Chifwepa, V. (2003).The use of the intranet and Internet by teaching staff of the University of Zambia.*African Journal of Library, Archives & Information Science,* 13(2), 119-132.

Chong, W. (2002). "Internet adoption in Macao, *"Journal of computer mediated communication,*

Cisse, C. (2004). Access to Electronic Information and Information Research. *SCAULWA Newsletter Vol. 5. No1. pp.14-17*

Correia,A.M.R., Neto,M.D. (2004). "The Role of E-Print Archives in the Access to and Dissemination of Scientific Grey Literature : Liza-a Case Study by National Library of Portugal", *Journal of Information Science*,Vol.28 No.3,pp.207-2

Dadzie, P. S. (2007). Information Literacy: Assessing the Readiness of Ghanaian. *Information Development. (23)4, 266-277.*

Dai, L. Chen,L. Zhang, H. (2000). China Academic Library and Information Systems: An Academic Library Consortium in China, *InformationTechnology and Librarian*

Darkwa, O. and F. Mazibuko (2000). Creating Virtual Learning Communities in Africa: Challenges and Prospects *Peer Review Journal onthe Internet Vol. 5,* No.5 (http://firstmonday.org/issues/issue5_5dakwa/index.html, *accessed on 16th April 2010.)*

Ellis,D. Oldman,H (2005). The English literature researcher in the age of Internet. *Journal of Information Science Vol.31 No.*

Ezewu, E.E.andUkwuijie, R.P.I (1989). Empirical Research Procedures and Statistics for Education Students.Ughelli, Nigeria: Eddy-Joe Publishers.

Faborade, M.O (2007). Paper Presented at eIFL.Net Workshop, University, Ill-Ife, Nigeria.

Falk H. (2005). State Library Databases on Internet. The E-library, 23(4), 492-498

Gakibayo, A. (2001). Internet Usage among Academic Libraries: A Case of Mbarara University, *BLIS dissertation*; Makerere University

Gbaje, E. S. (2005). Setting up and managing ICT laboratory in a Nigerian Library School: Ahmadu Bello University, Zaria experience. *African Journal of Library, Archives & Information Science,* (15)1, 51-58.

Gbaje, E. S. (2007).Provision of Online Information Services in Nigerian Academic Libraries: Journal of Nigerian Library Association, vol40.

Gwynne, S. and Rosenberg, D. (2005).*Accessing Information in Developing Countries: El*ectronic Resources and the College of Education.Workshop Handbook. Oxford: International Network for the Availability of Scientific Publications (INASP).

Hafeez. A. (2006). Availability and Use of Arabic Databases by Research Scholars of King Faisal Abdul-Azeez Library, Jami'atul Islam Madina, Libri, 49(1)1-9

Haridason S, and Khan M, (2009). Impact and Use of E-Resources by Social Scientist in National Social Science Documentation centre *(NASSDOC),The electronic library*, 27(1) 117-33

Heseltine, R. (2000). Developing Information Skills for students: Whose Responsibility? Academics? In: SCONUL-seven Pillars of Wisdom? Good Practice in Information Skills Development. Proceeding of a Conference Held at the University of Warwick on 2nd - 7th July, 2000, 74-77

Ibrahim A E, (2006). Use and perception of Online Databases in Islamic Private Universities, *Library*, 54(1) 18-29

IFLA (2012). International Federation of Library Association; Key Issues in Electronic Resources Collection Development and CMO Proposed Standard Guidelines for Academic Libraries.

Issa, A. et al (2009). Effects of Information Literacy Skills on the Use of E-Library Resources Among Students of The University of Illorin, Kwara State, Nigeria.*Library Philosophy and Practice.*

Jensen, M. (2007). Information communication (ICTs) in Africa: a Status Report, Paper Presented at the Third Task Force Meeting of the UN ICT Task Force; New York.

Katundu, D. (2002).*Mainstreaming Information literacy (IL) Across University Curricula: an Ignored Necessity or Luxury?* A study of public UniversityLibraries: A Paper presented to the Conference of East African, Public University Librarians, 17th -19th October 2002, Bagamoyo- Tanzania

Keith W. and Turfs B (2004). Collection Management in Academic Libraries in 21st century

Khalid, A. and Hafeez U. (2010). Utilization of Online Arabic Information Resources among Undergraduate student, King Khalid University Jiddah, *Libri*, 22(1) 1-7

Kinengyre A. A (2007).*The Effect of Information Literacy on the Utilization of E-Resourcesin Uganda*. The Electronic Library, Vol. 25 No.3 pp. 238-341.

Kumar BT. and Kumar GT, (2010). Perception and Use of E-resources and the Internet by Indian Academics, The Electronic Journals, 28(1), 137-156

Lazinger, *et al* (1997). Internet Use by Faculty Members in Various Disciplines: a Comparative Case Study, *Journal of the American Society for information Science* Vol. 48 No. 8, pp.508-18,

Lutchumanan B. and Talhami A (2011). Electronic Resource Usage in Academic and Research Institutions in Tanzania

Madhhudha khan, and Dhanavandan, E. (2008). Access and Use of Electronic Resources at Krishnasamy College of Engineering & Technology Library, Cuddalare. *Library PhilosophyandPractice 2012.*Available at http://unilib.unl.edu, practice 2012

Madhusudan, M. (2008). Use of UGCinfornet E-journal by Research Scholars and Student of University of Delhi, Delhi, Library Hi tech, 26 (3):369-386

Islam M. and Habiba U. (2015). "Using Pattern of Internet and E Recourses by Student and Faculty Members of a private in Bangladesh"American Journal of Educational Research, vol 3, no.5 pp. 541-546.

Majid, S. (2000). "Computer Literacy and Use of Electronic Information Sources by Academics: a Case study of International Islamic University Malaysia" *Asian* 8(4), 100-111.

Manda, P.A. (2005). Electronic Resource Usage in Academic and Research Institutions in Tanzania.*Information Development: (21)4, 269-282.*

Manir, A.K. (2008). The Changing role of Researchers in Nigeria: The Internet as an Alternative Future to Modernity. *Library Philosophyand Practice.*

Missen, C. (2005). The African Universities library project, WiderNet.org Available at: www.widernet.org/proposals/AULP.htm (accessed on 8 May 2010)

Mortenson Report (2005). *Developing Strong College of Education Libraries in Nigeria: a report for the MacArthur Foundation*. Urbana-Champaign: Mortenson Center for International Library Programs at the University of Illinois.

Muhammad, Z. (2005).*The Role of Supervisory and Supervisory Committee in Research Work.*Paper Presented at Workshop on Postgraduate Students Research Supervision, Organized by the Postgraduate School, A.B.U. Zaria. (Publication manual pp. 21-22*)*

Muswazi, P. (2005). The Integration of Print and Electronic Sources: a case study of the University of Swaziland Library. *African Journal of Library, Archives & Information Science*, (15)1, 59-66.

Ojo, R. A. and Akande, S. O. (2005). Students' Access Usage and Awareness of Electronic Information Resources at the University College Hospital, University of Ibadan, Nigeria. *Lagos Journal of Library and Information Science*, (3)1, 16-24.

Okebukola, P. (2004). Okebukola Draws Roadmap for ICT in Higher Education by Bill Okonedo. *Businessday Online*, December 10, pp. 1-2. Retrieved April 4, 2005, from http://www.businessdayonline.com/index.php? Article=482 2

Omotayo, B. O. (2006). A Survey of Internet Access and Usage among Undergraduates in an African University.*International Information & Library Review*, 38(4), 215-224.

Owolabi, K. A, and Attama, R. O. (2007).Internet Access and Usage by Academic Staff of AkinuIbiam Federal Polytechnic Uwana. Business Tech 2(4)

Owolabi, K. A, and Attama, R. O. (2007).Internet Access and Usage by Academic Staff of AkinuIbiam Federal Polytechnic Uwana. Business Tech 2(4)1-11

Pejova, Z. (2006). Information literacy: An Issue which Requests Urgent Action in Developing Countries and Countries in Transition. White paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science and the National Forum on Information Literacy, for Use at the Information Literacy Meeting of Experts, Praque, the Czch.Republic. http://WWW.nclis.gov/libinter/infolitconf&meet/papers/aiyepukufullpaper.pdf.Accessed on June 2011.

Philip Kotlar, Principles of Marketing, 15th Edition 2014

Ranjeev, (2015). et al Use of Internet and Electronic Information Resource, American Journal of Educational Research: vol 3, No. 7,2015, pp 886-892.

Ray, K. and Day, J. (1998). Student Attitudes Towards Electronic Information Resources. Information Research, 4(2). Available at: http://informationr.net/ir/4-2/paper54.html

Rosaline, O. Opeke, and Racheal, O. Odunlade (2011). Awareness and Utilization of Information Resources among Polytechnic Lecturers in Nigeria, Smaru*Journal of Information Studies Vol. 11(1&2) 2011 p 59-61*

Rowley, J. (2000). The question of electronic journals. Library Hi Tech. 18(1), 4

Said, A. (2005). Marketing e-resources to university staff and students in Pakistan. INASP Newsletter, 30 Autumn.

Saye J D. (2001). The Organization of E-Resources in Library and Information Science Curriculum OCLC Systems and Services, 17(2) 71-78

Sharma H., (2004). Consortial Access of Scholarly E-Resources on S&T in India, Current Science, 97(7) 984

Shuling, W. (2007). Investigation and Analysis of Content Use of Electronic Resources in Universities Library Management, V0l. 28 1 3: ½, pp.72 88

Stephen, O. (2012). Awareness and Use of Electronic Resources by Library and Information Science Students in Delta State University, Abra, Nigeria Library. Vol 45, Nov (2). Dec 2012

Teo, T.S.H. (2001). Demographic and Motivation Variables Associated with Internet Usage Activities, Internet research: Electronic Networking Applications and Policy, Vol.11 No. 2, pp.125-37

Tiefel, V. (2004). The Gateway to Information: A System Redefines: How Libraries are used *American Libraries* Vol. 22 No. 9

Torma, S. and Vakkari, P. (2004).Discipline, Availability of Electronic Resources and the Use of Finnish National Electronic Library-FinELib.*Information Research, (10)1,* paper 204 Available at http://InformationR.net/ir/IO-l/paper204.htmlaccessed 7 June 2009.

Tsakonas, G. &Papatheodorou, C., (2006). Analyzing and Evaluating Usefulness and Usability in Electronic Services, Journal of Information service, Vol. 32 No. 5, pp.400-419

Ukashatu H. (2013). Access and Utilisation of Arabic online Database among Academics in A.B.U and B.U.K. (Unpublished Thesis A.B.U Zaria, Nigeria)

Faculty of Education

Department of Library and Information Science

Ahmadu Bello University, Zaria

Dear Sir/Madam,

I am a postgraduate student in the above named Department carrying out a research on the **"Promotion and Utilization of Electronic Information Resources in Federal Colleges of Education Libraries in the North Western States of Nigeria. "**

Your library has been selected for the study. I therefore urge you to kindly assist to respond to the questions raised in the guided interview. Your response will strictly be used for research purpose only.

Thank you in anticipation for your cooperation.

Maryam B. Aminu

APPENDIX A

QUESTIONNAIRE FOR LIBRARY STAFF

SECTION A: Personal Data

Name of library……..

Sex: male ( ) female ( )

SECTION B: Types of E-Resources Available

1. What types of e-resources are available in your library? (Please tick as many as possible).

a. AGORA ( )
b. AJOL ( )
c. ARDI ( )
d. BIO MED ( )
e. BIO ONE ( )
f. DOAJ ( )
g. EBCOHOST ( )
h. JSTOR ( )
i. FUBMED ( )
j. HINARI ( )
k. LANTEAL ( )
l. OARE ( )
m. PROQUEST ( )
n. UGCINFONET( )
o. Others, Specify …….

SECTION C- Promotion of E-Resources

2. What types of e-resources are promoted in your library? (Please tick as many as possible).

a. AGORA( )

b. AJOL ( )

c. ARDI ( )

d. BIO MED ( )

e. BIO ONE ( )

f. DOAJ ( )

g. EBCOHOST ( )

h. JSTOR ( )

i. FUBMED ( )

j. HINARI ( )

k. LANTEAL ( )

l. OARE ( )

m.PROQUEST ( )

n. UGCINFONET( )

o. Others, Specify …….

3. Please Indicate the Extent of Promotion of E-resources

S/N	Types of e-resources	Very often	Often	Undecided	Never
a.	AGORA				
b.	AJOL				
c.	ARDI				
d.	BIO ONE				
e.	BIOMED				
f.	DOAJ				
g.	EBCOHOST				
h.	FUB MED				
i.	HINARI				
j.	JSTOR				

k.	lANTEAl				
l.	OARE				
m.	PROQUEST				
n.	UGCI INFONET				
o.	Others, Specify				

SECTION D: Promotional Media and Strategies Adopted for Enhancing the Use of E-Resources

4. What type of media is use to enhance the use of e-resources in your library?

a. Radio and TV ( )
b. Mobile Phone ( )
c. Exhibition ( )
d. Library orientation ( )
e. Notice Board ( )
f. Magazines ( )
g. Newspaper ( )
h. social media ( )
i. library webpage ( )
j. others specify……

5. Indicate the type of strategy your libraries adopt to enhance the use of e-resources? (pls tick as many)

a) Use of exhibition and displayed ( )
b) Conducting periodic orientation ( )
c) Organized seminars and workshop ( )
d) Good human relations ( )

e) Use of bulk message ( )

f) Creating electronic advertisement ( )

g) Other specify……

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Thank you in anticipation for your cooperation.

Maryam B. Aminu

APPENDIX B

QUESTIONNAIRE FORLIBRARY USERS

SECTION A: Personal Data

Name of library……..

Sex: male ( ) female ( )

Status: Academic staff ( ) Student ( )

SECTION B: Types of E-Resources Being Utilized.

1. What types of e-resources do you use in you library?

   a. AGORA ( )
   b. AJOL ( )
   c. ARDI ( )
   d. BIO MED ( )
   e. BIO ONE ( )
   f. DOAJ ( )
   g. EBCOHOST ( )
   h. JSTOR ( )
   i. FUBMED ( )
   j. HINARI ( )
   k. LANTEAL ( )
   l. OARE ( )
   m. PROQUEST ( )
   n. UGCINFONET ( )
   o. Others, Specify …….

2. How do you use the promoted e-resources in your library?

   a. By direct reading from the net
   b. By downloading the electronic resources

c. By mere cut and paste

d. By printing the content of the document

e. By saving the document in the storage media

f. By downloading the forwarded content from the e-mail

SECTION C: Extend of Use

3 How often do you use the e-resource promoted by your library?

S/N	Types of e-resources	Very often	Often	Undecided	Never
a.	AGORA				
b.	AJOL				
c.	ARDI				
d.	BIO ONE				
e.	BIOMED				
f.	DOAJ				
g.	EBCOHOST				
h.	FUB MED				
i.	HINARI				
j.	JSTOR				
k.	LANTEAL				
l.	OARE				
m.	PROQUEST				
n.	UGCI INFONET				
o.	Others, Specify				

SECTION D: Challenges To The Utilization of E-Resources Being Promoted.

4. Indicate the problems you encounter while using e-resources in your library? (pls tick as many as possible).

a. Power supply

b. I'm not a computer literate

c. Slow internet connectivity

d. Poor ICT facilities

e. Lack of information literacy skills

f. Others specify……..