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Students' Perception, Use and Challenges of Electronic Information Resources in Federal University of Petroleum Resources Effurun Library in Nigeria

Saturday U. Omeluzor

Federal University of Petroleum Resources, Effurun, Delta State, someluzor@yahoo.com

Alarape Asimi Akibu Ph.D.

Adeleke University, Department of Library and Information Science, aquidorc96@yahoo.com

Olusipe Abiodun Akinwoye

Adeleke University, Department of Library and Information Science, abiodun_olusipe@yahoo.com

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Students' Perception, Use and Challenges of Electronic Information Resources in Federal University of Petroleum Resources Effurun Library, Nigeria.

Abstract

The purpose of this study is to investigate students' perception, use and challenges of electronic information resources in Federal University of Petroleum Resources Effurun, Nigeria. A descriptive survey research design was adopted. A census sampling technique was used and data was gathered from Two hundred and forty-nine students of 500 level in the Departments in College of Technology. The data gathered were analyzed using descriptive and inferential statistics, while regression analysis was used to analyze result of the hypothesis. The result revealed that electronic information resources are used at different level by the respondents with e-journal, e-database, web OPAC and repositories recording high usage. It shows that users' perception influences use of electronic information resources in academic libraries with ($\beta = .214, p < .05$). From the findings, it is deduced that users' perception influences use of e-resources in academic libraries, while lack of awareness, lack of training, unreliable Internet connectivity, insufficient e-resources in various study areas, unavailability of e-resources on 24/7 and difficulty of identifying relevant information to meet users' needs are challenges hindering use of e-resources. The study concludes that librarians should acquire more e-resources to cover various study areas, create more awareness of e-resources at the library to change users' perception and introduce a 24/7 internet services.

Keyword: electronic information resources, User perception, challenges, Federal University of Petroleum Resources Effurun.

Introduction

The 21st century brought several challenges to the library as a service unit in tertiary institutions since much emphasis is laid on information and communication technology (ICT). The use of ICT tools in academic libraries paved the way to the use of Internet, automation systems and provision of electronic information resources in library operation and services. According to Andreou (2001), no academic library is considered as modern if it is not automated and if it does not provide some basic electronic information sources such as the OPAC, CD-ROMs and Internet to its students. There is a growing demand on the use of electronic information resources (EIRs) in academic libraries. This is because of its dynamic nature, interoperability and flexibility compared to print resources. EIRs also known as e-resources come in different forms such as e-book and e-journal, e-dictionaries, e-magazine among others which are accessible via CD-ROMs, e-database and the Internet. Library information resources serve an important purpose in learning, teaching and research in any academic institution of higher learning. Effort is usually made by libraries to acquire relevant information resources to meet the information needs of the library users. Library information resources are usually acquired through outright purchase or subscription and they are in both print and electronic formats. Library users usually patronize databases that are authoritative, which provides information that is up to the minute, international in scope and accessible. Availability of e-resources has changed what users actually read and use (Renwick, 2005).

EIRs are acquired in libraries to complement existing library resources and to reduce pressure on print sources. They are easily disseminated since it can be duplicated, manipulated, copied, printed, shared and disseminated among library users. Igbo and Imo (2014) stated that a major advantage of EIRs is being able to share and distribute the resource. According to Oyedapo and Ojo (2013), e-journal offers a range of potential advantages to libraries and end users.

EIRs are domiciled in CR-ROMs, computer hard disc and databases and disseminated through electronic library of a University. Most e-libraries have necessary facilities for the management, access and dissemination of EIRs. This may include power supply, information and communication technology infrastructure such as computers, networking, server, Internet access, router and modem.

The need for library users to acquire skill in searching, accessing and retrieving of information in the library cannot be overemphasized. This will increase the users' confidence and use of library resources. Bamidele, Omeluzor and Amadi (2013) advocated that that as electronic journals are fast becoming more acceptable and usage is increasing, it is pertinent for library users to attain high level of expertise or possibly learn to utilize them effectively.

Before EIRs are broadly utilized in libraries, print sources were the only means of disseminating academic information and current research findings. However, advancement in information and communication technology (ICT) enhances information services in libraries. Bamidele, Omeluzor and Amadi (2013) stated that development of information communication and technology (ICT), and its subsequent usage in the library, dissemination of most journals are electronically managed via the Internet and catalogued, accessed and retrieved from databases.

EIRs are dynamic among other library information resources. Due to its availability and accessibility in academic libraries, users' perception of the library has drastically changed. It has also increased patronage leading to provision of quality and satisfactory services to the library users. This study tends to investigate the perception, use and challenges of using electronic information resources by students of Federal University of Petroleum Resources Effurun (FUPRE), Nigeria.

Background to the study

The FUPRE Electronic Library (E-library) was established in 2010 to cater for the information needs of library users with a small number of facilities, i.e. twenty computers, two photocopiers, one printer, one scanner, a spiral binding machine and a laminating machine. It also has Internet connectivity to provide access to electronic information resources. Due to the growing need to provide up-to-date information for students, staff and researchers, the FUPRE University Management in collaboration with the Tertiary Education Fund (TETFund) in 2015, approved the supply and equipping of a 'new E-library' with a state-of-the-art technology including a Geenee Interactive Digital board of 70 inch by 50 inch, overhead projector, 145 Desktop Computers, two servers, Internet connectivity, furniture and inverter for power backup. The new E-library provides access to electronic information resources of over 2,000 electronic books and 3,000 electronic journals covering subject areas in Science and Technology such as Geology and Geophysics, Environmental Science, Computer and Mathematics, Physics, Chemistry, Petroleum, Mechanical, Electrical electronic, Chemical and Marine. The resources are domiciled on stand-alone computers as well as on external databases and access is granted to registered library users.

Statement of the problem

There is a growing body of scholarly publications on the Internet which many researchers, teachers and students are taking advantage to enhance their learning, teaching and research activities. FUPRE library subscribes to e-resources to support learning, teaching and research of the University community. The e-resources are accessible on the Internet and on stand-alone systems at the E-library. Access codes to the subscribed e-resources are given to registered library users. In addition to that, effort was made by the Systems Librarians and some library staff to download some of the e-resources (e-books and e-journals, etc.) on stand-alone computer systems. Observation shows that regardless of the effort made by the librarians and library staff,

the huge subscription cost on the University and the adoption of some of the recommendations made by Omoisejimi, Eghworo and Ogo (2015) in their study on the usage of electronic information resources (EIRs) by undergraduate students of Federal University of Petroleum Resources Effurun, observation and available records of utilization shows that some of the e-resources are grossly underutilized. The disparity in usage of the e-resources shows that there is a problem. This study therefore seeks to investigate students' perception, usage and challenges of electronic information resources in order to bridge the gap.

Research question

This study is guided with the following research questions:

1. What is the level of usage of the electronic resources by undergraduate students?
2. What is the perception of students about electronic information resources in academic libraries?
3. What are the challenges facing use of electronic information resources by undergraduate students?
4. What are the ways of improving use of e-resources in academic libraries?

Research hypothesis

H₀₁: Students' perception of electronic information resources (EIR) does not have influence on their level of use in federal university libraries.

Scope of the study

The study focuses on the perception, use and challenges facing electronic information resources at Federal University of Petroleum Resources Effurun (FUPRE). FUPRE is the only University in Nigeria established as a research and training institution for manpower development in the Oil and Gas sector. Consequently, this study is carried out within the College

of Technology of the University and the respondents of interest are 500 level students in all the Departments.

Literature review

Due to development in ICT in the 21st century, use of Internet resources has tremendously increased in academic institutions around the world. According to Henderson and MacEwan (1997) electronic resources have exploded in popularity and use and enable innovation in teaching. The emergence and use of electronic information resources has tremendously transformed information handling and management in academic environments and in university libraries (Ani & Ahiauzu, 2008; Ikoja-Odongo & Okello-Obura, 2013). According to Andreou (2001), some of the advantages of using electronic information resources are: speed with which the user can make a search, ability of the user to make complicated searches using a combination of keywords, possibility of searching multiple files at one time, electronic resources can be printed and searches saved to be repeated at a later date and they are updated more often than printed tools.

A study by Adeniran (2013) shows that undergraduates made use of electronic resources mostly for research, assignment, current awareness, information acquisition, and e-mail and news acquisition. Similarly, Ozoemelem (2009) investigated use of electronic resources by postgraduate students of the Department of Library and Information Science, Delta State, Abraka and found out that electronic resources were highly used by postgraduate students. Also, Edem and Egbe (2016) assessed the availability and utilization of electronic resources by postgraduate students in a Nigerian University Library and established that 86.39% of the respondents used e-resources. It also showed that the resources often used were e-books (12.65%), e-journal (60.53%) and internet resources (23.37%), and their purpose of using the resources is for research work and completing assignment. Some of the challenges faced by the users as

indicated in the study are lack of computer skills, slow network, inconsistent presence of Internet and power outage.

Ogbuiyi, Oriogu, Momoh and Ogbuiyi (2014) studied information literacy skills and awareness of electronic information resources of library users in Oyo State Public Library, Nigeria and found out that the respondents were aware of available e-resources comprising e-books, e-journals, CR-ROMs, online database, Web-based OPAC, e-dictionaries, e-encyclopaedia, etc with aggregate percentage of 70.7%. A survey by Ray and Day (1998) on students' use of CD-ROM reveals that 83% of students surveyed felt that using this source saved them time, and found it relatively easy to use. Two third of those surveyed stated that if the CD-ROM was busy, they would wait for it to become free rather than use the print tool.

The study by Otulugba and Mamudu (2014) on electronic library utilization among students of Tai-Solarin University of Education, Ogun State, Nigeria indicated that 81.9% used e-journals, 76.8% used e-magazine/newspapers while CD ROMs and e-databases were the least consulted with 51.7% and 41.1% respectively. On the respondents' perception and their purpose of usage; it showed that 55.5% used it for article search, 64.1% search for e-books and 46.6% search for research topic. Among the challenges faced by the respondents include difficulty to identify relevant database to meet their information needs (51%), lack of access to e-resources (61%), persistent power failure (64.7%) and limited bandwidth (54.3%). Equally, Okello-Obura and Magara (2008) investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. Out of the 250 targeted students, 190 responded, giving a response rate of 76%. The study revealed that users derived a lot of benefits from electronic resources, gaining access to a wider range of information and improved academic performance as a result of access to quality information.

In the same vein, Ikoja-Odongo and Okello-Obura (2013) found out in their study on electronic information resources utilization by students in Mbarara University Library that 63% of the respondents used Internet search engines, while only 13.5%, 11.6% and 7.5% and 5.6%

used e-books, CD-ROM, e-journals and scholarly databases respectively. The study revealed that students perceived the Internet search engine to be easier than other electronic resources in the library.

An investigative study by Cason and Scoyoc (2006) on undergraduate students' research habits in a strictly electronic library environment at a large public university revealed that undergraduate students in the electronic library depended primarily on Internet sites and online instruction modules such as Blackboard or WebCT for their research needs rather than university-funded research sources.

Students' awareness about e-library services and resources may increase their utilization. Ajibili and Gana (2013) studied utilization of e-library by undergraduate students in private universities libraries in Bingham University and established that 82.4% of the respondents were aware of its existence and therefore increase usage. Further findings in their study showed that 85.2% of the respondents used e-library for academic information.

Considering the relevance of knowledge acquisition in using e-resources effectively, Renwick (2005) conducted a study on knowledge and use of electronic information resources by Medical Sciences Faculty at the University of the West Indies. The study revealed that most of the respondents felt that they were competent users, 83% claimed they acquired skill through 'self-taught' while many expressed a need for training. Anarki and Babalhavaeji (2013) opined that the library should organise orientation classes and training programs in accessing, searching and downloading of e-resources effectively. Similarly, Andreou (2001) insisted that with increasing amount of electronic information sources available, there is a need for information skill training for both staff and students. Lack of training for library users is a hindrance in using library information resources and services (Opeke and Onuoha, 2013).

Egbunu and Usman (2013) studied availability and utilization of information resources and services by academic staff in University of Abuja. Their research showed that 80% of the respondents attested that resources were inadequate. Similarly, Omeluzor, Madukoma, Bamidele

and Ogbuyi (2012) examined the use of electronic information resources and research output by academic staff in private universities in Ogun State, Nigeria. The study was conducted in three private universities. It showed that majority or 95.8%, 90% and 94.6% used e-database in Babcock, Crescent and Redeemer's Universities respectively. It also indicated that 86%, 93.8% and 87.7% used e-journals while 84%, 86.3% and 81.5% used e-books in the three universities respectively. The findings also revealed that majority of the respondents are aware and used e-databases, e-journals, e-books, CD-ROMs, repository and OPAC. Furthermore, the study also showed that the purpose of using e-resources was to prepare lecture notes as indicated by 86% of the respondents, publish quality articles as shown by 58.3% and to prepare paper for presentation as noted by 63.4%. Increase in the level of usage of the e-resources can be attributed to users' perception.

The perception of library users about library resources is of utmost importance because to a large extent it determines the level of information resources usage in academic libraries. Although, Salaam and Opeke (2009) stated that the more available and accessible resources are, the more they would be utilized. This may not be true hence the study of Sathe, Grady and Guise (2002) on perception and use of both print and electronic journals among nursing faculty showed that 75% of the respondents utilized print journals frequently against 25% who used electronic journals to the same extent. Use of EIRs may be influenced by awareness, perception, interest and exposure that a user has. For example, Swain (2010) pointed out that awareness could be influenced by the interest and exposure that a user or a student has in the database, while perception encourages the users to utilize library resources.

Odongo and Okello-Obura (2013) in their study on electronic information resources utilization by students in Mbarara University Library reveals that 63% of the respondents used Internet search engines, while only 13.5% used e-books, 11.6% used CD-ROM, and 7.5% e-journals and 5.6% used scholarly databases. The study also showed that students perceive Internet to be easier than other e-resources. Similarly, Epic (2001) stated that many people first

go to a general Internet search engine such as Google and do a keyword search than library subscribed e-resources.

Library users' attitude towards use of electronic information resources may change if they are able to access their need. Kwadzo (2015) found out in her study that 71.9% of the respondents found e-resources useful because they could search all database simultaneously. This was followed by 65.6% who said they use resources because they are available all the time (24/7).

Bamidele, *et al* (2013) believes that the perception and use of certain resources in the library depends on users' awareness, packaging, format it is presented, ease of use, result oriented and role of the tutor. Hampton-Reeves, Mashiter, Westaway, Lumsden, Day, Hewertson, and Hart (2009) claimed that students prefer and consistently use Google to save themselves the trouble of going to the library.

Wright, Tseng and Kolodner (2001) cited in Sathe, *et al* (2002) surveyed physicians' attitudes toward electronic journals and found out that while nearly 80% of the respondents believed electronic journals would decrease office clutter and facilitate location of useful articles, 74% of the respondents were concerned about losing the convenient readability and portability of print.

Accessibility and use of e-resources in Nigeria is faced with challenges. Literature revealed that frequent power failure, poor Internet connectivity and improper guidance on use of e-resources were the factors that militate against accessing e-resources (Ogbuiyi, *et al*, 2014). Similarly, Omeluzor, *et al* (2012) in their study found out that challenges facing non access to e-resources are lack of personal computers, unstable power supply and non-payment of subscriptions.

Adeniran (2013) conducted a study on usage of electronic resources by undergraduates at the Redeemer's University, Nigeria. Among the challenges encountered by the respondents is large mass of irrelevant information, the need to filter the results from search, download delay,

failure to find information, inadequate or lack of search skills, high cost of access, inaccessibility of some electronic resources, difficulties in navigating through electronic resource etc.

The study of Igbo and Imo (2014) on electronic information resources sharing and networking among University libraries in Nigeria: Opportunities and challenges showed that lack of awareness with a mean (3.52), high cost of Internet connectivity with a mean (3.22), lack of electronic information resources with mean (3.96), and insufficient bandwidth for easy access to the Internet with mean (3.45) among other were hindrances. In a related study, Renwick (2008) found out that faculty had high awareness of e-resources made available by Medical Science Library at the University of the West Indies but with low usage, which was a challenge. Thus, Anaraki and Babalhavaeji (2013) pointed out that where students are not aware of existence of e-databases they tend to use general search engines to meet their information needs. This means that utilization of available e-resources has correlation with awareness.

Agba, Kigongo-Bukenya and Nyumba (2004) investigated utilization of electronic information resources by academic staff at Makerere University. The study revealed that the services were not adequately utilized due to lack of knowledge on how to use e-journals, lack of facilities, lack of time and awareness. A recent study on usage of electronic information resources (EIRs) by undergraduate students Omosekejimi, Eghworo and Ogo (2015) found out that the factors affecting use of e-resources are download delay occasioned by slow network problem, inadequate electronic information resources facilities, inaccessibility of some electronic resources and difficulty in navigating through electronic resource as a result of inconsistency training for users.

Faculty members in universities are not left out of the challenges of using e-resources. Omeluzor (2015) examined faculty staff awareness and willingness to deposit research work in institutional repository in selected public and private universities in Nigeria. The finding showed that 58% and 50% of the respondents in private and public universities respectively indicated that poor information technology infrastructure development was a challenge to deposit research

finding in institutional repository. Equally, Ajibili and Gana (2013) study indicated that inadequate computer systems, slow Internet speed and epileptic network service are the major challenges militating against effective utilization of e-resources in the e-library.

Research methodology

This study investigates the perception, use and challenges of electronic information resources by students of Federal University of Petroleum Resources Effurun, Nigeria. The study adopted a descriptive survey design. A census sampling technique was used. The study population comprise all registered 500 level students of 2015/2016 academic session in the College of Technology as shown in table 1 with a total of 249. The choice of this group of students is because at the time of this study, they are fully engaged in research, presentations, class work and other academic activities that will usher them into writing their final year project. Therefore, it is expected that they will utilize EIRs to support their research.

Questionnaire was the major instrument for data collection. Before the questionnaire was administered, it was first given to an expert in the field of Library and Information Science for face validity who corrected some defects and certifies it to be appropriate. Also, a pilot study was done by administering 40 copies of the questionnaire on 500 level students in the Department of Mechanical Engineering at the Niger Delta University, Amasoma, Bayelsa State who are not respondents in this study. The instrument was subjected to Cronbach's Alpha reliability analysis with a reliability coefficient result of $\alpha = 0.76$. This result indicated that the instrument is reliable since it is above 0.5 level of significance.

The questionnaire was administered face-to-face on the respondents during a briefing program organized for the final year engineering students held at the Students Centre of FUPRE. A total of two hundred and forty-nine questionnaires were retrieved. From of the administered questionnaire, two hundred and sixteen were found usable given a total rate of 87% while thirty three were not properly answered and therefore not included in the analysis. Linear Regression

Analysis was used to analyse the one null hypothesis at 0.05 level of significant. Data collected were analyzed using frequency distribution table and percentage.

Result and discussion of findings

Table 1: Demographic information of respondents

S/N	Department	Frequency	Percentage
a.	Petroleum Engineering	39	18.1
b.	Chemical Engineering	50	23.1
c.	Mechanical Engineering	40	18.5
d.	Marine Engineering	48	22.2
e.	Electrical Electronics	39	18.1
Total		216	100
Gender			
Male		130	60.2
Female		86	39.8
Total		216	100

Result in table 1 shows that all the Departments in the College of Technology in Federal University of Petroleum Resources Effurun are represented in this study. It indicates that 23.1% of the respondents are in Chemical Engineering, followed by Marine Engineering with 22.2% while Mechanical Engineering has 18.5% of respondents. Petroleum Engineering and Electrical Engineering have the least respondents with 18.1% respectively. On their gender, it reveals that 60.2% of the respondents are male while 39.8% of the respondents are female. This means that there are more male in College of Technology than the female.

Research question 1: What is the level of usage of the electronic resources by undergraduate students?

Table 2: Level of use of electronic information resources by respondents.

SN	Electronic resources	Monthly	Bimonthly	Weekly	Daily	Occasionally	Not used
a.	e-book	3 (1.4%)	-	53 (24.5%)	-	60 (27.8%)	98 (45.5%)
b.	e-journal	3 (1.4%)	-	53 (24.5%)	15 (6.9%)	105 (48.6%)	40 (18.5%)
c.	e-database	-	-	61 (28.2%)	57 (26.4%)	85 (39.4%)	13 (6%)
d.	CD-ROM	-	-	24 (11.1%)	-	75 (34.7%)	117 (54.2%)
e.	Web OPAC	3 (1.4%)	47 (21.8%)	30 (13.9%)	25 (11.6%)	24 (11.1%)	87 (40.3%)
f.	Repositories	-	-	26 (12%)	60 (27.8%)	103 (47.7%)	27 (12.5%)
g.	e-dictionaries	43 (19.9%)	40 (18.5%)	35 (16.2%)	60 (27.8%)	38 (17.6%)	-
	Others? <i>Please specify</i>						

On the level of use of EIRs, result in table 2 reveals that majority or 53.7% of the respondents use e-book at different time, while 45.5% of the respondents never use e-book. On use of e-journal, it shows that 48.6% of the respondents use e-journal occasionally, 24.5% use it weekly, 6.9% use it daily, 1.4% use monthly while 18.5% never use it. Result also reveals that 28.2% use e-database weekly, 26.4% use it daily, 39.4% use it occasionally. On the use of CD-ROMs, 54.2% of the respondents use it weekly against 34.7% that use it occasionally and 11.1% of the respondents who did not use it. Also, result reveals that majority 40.3% of the respondents never use Web OPAC. A total of 21.8% use it bimonthly, 13.9% use it weekly while 11.6% and 11.1% of the respondents use it daily and occasionally respectively. On the use of repositories, result shows that 47.7% of the respondents use it occasionally, 27.8% use daily, 12% use it daily while 12.5% of the respondents have not used it. Result shows that e-dictionaries attracted 19.9% users monthly, 18.5% users bimonthly, 16.2% users weekly, 27.8% users daily and 17.6% who

use it occasionally. It means that e-dictionaries resource was used at all time compare to other e-resources.

Research question 2: What is the perception of students about electronic information resources in academic libraries?

Table 3: Perception of student about electronic information resources in the library.

SN	Statement	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed
a.	The EIRs is insufficient in my study area	77 (35.6%)	111 (51.4%)	28 (13%)	-
b.	The Internet sites and other databases are better than the library e-resources	51 (23.6%)	80 (37%)	85 (39.4%)	-
c.	Electronic information resources are not well structured	30 (13.9%)	74 (34.3%)	83 (38.4%)	29 (13.4%)
d.	It takes time to search through the computer systems for e-books/e-journals.	22 (10.2%)	78 (36.1%)	95 (44%)	21 (9.7%)
e.	The e-resources are not 24/7 accessible.	81 (37.5%)	59 (27.3%)	68 (31.5%)	8 (3.7%)
	Others? <i>Please specify</i>				

Result in table 3 reveals that 87% of the respondents strongly perceive the e-resources in their study area to be insufficient while 13% are of a contrary view. 23.6% and 37% of the respondents perceive the Internet sites and other database to be better than the library subscribed e-resources while 39.4% of the respondents disagreed. It shows that 13.9% and 34.3% strongly agreed and agreed that EIRs are not well structured while majority, 51.8% of the respondents strongly disagreed and disagreed that view. Result also reveal that 10.2% and 36.1% strongly agreed and agreed that searching through the computer system for e-book and e-journal is time consuming. It also indicated that 37.5% and 27.3% of the respondents strongly agreed and agreed that e-resources in the library are not 24/7 accessible.

Research question 3: What are the challenges facing use of electronic information resources by undergraduate students?

Table 4: Challenges facing use of electronic information resources by undergraduate students.

SN	Statement	Strongly Agreed	Agreed	Strongly Disagreed	Disagreed
a.	Lack of awareness	64 (29.6%)	84 (38.9%)	50 (23.1%)	18 (8.3%)
b.	Lack of training in using e-resources	21 (9.7%)	100 (46.3%)	42 (19.4%)	53 (24.5%)
c.	Unreliable Internet connectivity (access)	72 (33.3%)	57 (26.4%)	59 (27.3%)	28 (13%)
d.	Insufficient e-resources in my field of study	105 (48.6%)	35 (16.2%)	58 (26.9%)	18 (8.3%)
e.	Difficulty in identifying relevant information to meet my information needs	84 (38.9%)	61 (28.2%)	71 (32.9%)	-

Result in table 4 reveals that 29.6% and 38.9% of the respondents strongly agreed and agreed that lack of awareness constitute a hindrance to the use of EIRs in academic libraries. It also shows that 9.7% and 46.3% of the respondents strongly agreed and agreed that lack of training on the use of e-resources is a hindrance while 43.9% of the respondents disagreed. On reliability of Internet connection, result shows that 33.3% and 26.4% of the respondents strongly agreed and agreed that unreliable internet connectivity is a challenge to accessing e-resources in the library while 40.3% of the respondents disagreed. Result also revealed that 48.6% and 16.2% of the respondents strongly agreed and agreed that there are insufficient e-resources in their field of study. The result further shows that 38.2% and 28.2% of the respondent strongly agreed and agreed that identifying relevant information to meet users' information needs is a challenge.

Research question 4: What are the ways of improving use of e-resources in academic libraries?

Table 5: Ways of improving use of electronic information resources in academic Libraries.

SN	Statement	Strongly Agreed	Agreed	Strongly Disagreed	Disagreed
a.	Training of e-library users	83 (38.4%)	98 (45.4%)	27 (12.5%)	8 (3.7%)
b.	Create awareness and encourage users to use e-resources	149 (69%)	27 (12.5%)	40 (18.5%)	-
c.	Available e-resources should be 24/7 accessible.	138 (63.9%)	78 (36.1%)	-	-
d.	Create a catalogue of available e-resources to ease access	126 (58.3%)	90 (41.7%)	-	-
e.	Increase time of accessing the e-library/e-resources	140 (64.8%)	57 (26.4%)	19 (8.8%)	-
f.	Improve Internet connectivity and a distributed access to e-resources	186 (86.1%)	30 (13.9%)	-	-

Result in table 5 reveals that 38.4% and 45.4% of the respondents strongly agreed and agreed that training of e-library users is relevant to increasing use of e-resources. Finding also indicated that 69% and 12.5% strongly agreed and agreed that creation of awareness and encouraging users to use e-resources will increase usage and will change their perception. The result also shows that 63.9% and 36.1% of the respondents strongly agreed and agreed that available e-resources in the library should be accessible 24/7. Result also shows that 58.3% and 41.7% of the respondents strongly agreed and agreed that creating a database of available e-resources will enable users to use them. It also reveals that 86.1% and 13.9% of the respondents strongly agreed and agreed that time allotted for accessing the e-library and e-resources should be increased.

Test of hypothesis

Table 6: Summary of Linear Regression Analysis showing the influence of students' perception of electronic information resources (EIR) in relation to its level of use.

Predictors	β	T	R	R^2	F	Sig	<i>Remark</i>
<i>Perception of EIR</i>	.214	3.212	.214	.046	10.317	.002	Significant

Result in table 6 is the test of hypothesis on the influence of students' perception on level of electronic information resources usage in academic libraries using regression analysis. The null hypothesis was stated that "students' perception of electronic information resources (EIR) does not have influence on level of usage in federal university libraries". The result reveals that students' perception of EIRs has a correlation with level of use ($\beta = .214, p < .05$). This implies that perception influences usage of electronic information resources in the library. Therefore, the hypothesis is rejected.

Discussion of findings

From the findings, it can be deduced that there is an improvement in the use of electronic information resources in the Federal University of Petroleum Resources Effurun Library. Finding in table 2 reveals that e-journal, e-database, Web OPAC and repositories are utilized daily, weekly and occasionally than other e-resources. It shows that some of the respondents (52.3%) used e-book while e-dictionary was used all the time. Result further showed a low usage of Web OPAC and CD-ROM. The finding corroborates with the findings of Ikoja-Odongo and Okello-Obura (2013) who confirmed that 11.6% of the respondents in their study used CD-ROM. Kwadzo (2015) and Andreou (2001) stated that use of CD-ROM in academic libraries is reducing as library users accesses other available e-resources in the library and on the Internet.

Low use of CD-ROMs may as well be attributed to advancement in technology and proliferation of Internet access with the use of mobile phone, modem and router among library users.

Finding in table 3 shows that 35.6% and 51.4% perceive the e-resources in the library to be insufficient in their study areas. This perception can instigate students' non use of university funded-e-resources as asserted by Cason and Scoyoc (2006) that undergraduate students in the electronic library depend primarily on Internet sites and online instruction modules such as Blackboard or WebCT for their research needs rather than university-funded research sources.

It further reveals that 23.6% and 37% of the respondents perceive Internet sites and other database to be better than the library subscribed e-resources. This finding agrees with the finding of Hampton-Reeves, *et al* (2009) in their study found out that students prefer and consistently use Google to save themselves the trouble of going to the library. Users' perception of library resources is a predictor of its usage. Moreso, the study by Ikoja-Odongo and Okello-Obura (2013) reveal that 63% of the respondents used Internet search engines, while only 13.5%, 11.6% and 7.5% and 5.6% used e-books, CD-ROM, e-journals and scholarly databases respectively. As Epic (2001) stated, "many people first go to a general Internet search engine such as Google and do a keyword search than library subscribed e-resources". This implies that some library users perceive the library e-resources to be inadequate in meeting their information needs and prefer using the Internet search engines. Students' perception of library resources can significantly affect its usage. Librarians must educate library users about library subscribed e-resources and encourage them to make maximum use of them. One significant finding in table 3 is the perception of the 64.8% of respondents who perceive e-resources to be inaccessible all the time (24/7). Although, this finding is not in congruence with the finding of Kwadzo (2015) who found out that 65.6% of the respondents in his study indicated that e-resources are available all the time (24/7), however, for sustainability of user community, libraries must ensure a 24/7 (round-the-clock) access to all subscribed e-resources.

Result in table 4 indicated that 29.6% and 38.9% of the respondents strongly agreed and agreed that lack of awareness constitute a hindrance to the use of EIRs in academic libraries. This finding substantiate the findings of Igbo and Imo (2014) who examined use of electronic information resources sharing and networking among University libraries in Nigeria and found out that a major challenge of non use of e-resources is due to lack of awareness. The finding also concur with the finding of Ahmed (2013) that postgraduate students from Bangabandhu Sheikh Mujib Medical University (BSMMU) and undergraduate students from Bangladesh University of Engineering and Technology used free electronic resources more than university subscribed resources because of lack of awareness of subscribed ones. Lack of awareness of available e-resources can make library users especially students to use alternative resources. Anaraki and Babalhavaeji (2013) stated that where students are not aware of existence of e-databases they tend to use general search engines to meet their information needs. Studies have shown that lack of awareness can hinder library users from using available e-journals and other e-resources in the library (Agba, Kigongo-Bukenya and Nyumba, 2004; Ajibili and Gana, 2013).

On training, result shows that lack of training in using e-resources can hinder library users from using available e-resources. The study of Renwick (2005) reveals that most of the respondents expressed a need for training. Anarki and Babalhavaeji (2013) opined that academic libraries should organise orientation classes and training programs in accessing, searching and downloading of e-resources. Andreou (2001) insisted that with increasing amount of electronic information sources, there a demand for information skill training for both staff and students. Training is necessary to bridge the gap in using electronic information resources in academic libraries.

On reliability of internet connection, finding reveals that unreliable internet connectivity is a challenge to accessing e-resources in the library. Provision of reliable Internet access in academic libraries will change users' perception about the library and will make them see the library as their first point of call for information.

Conclusion and Recommendations

This study showed users perception and the level of electronic information resources usage as well as challenges faced in academic libraries. It is evident in this study that use of e-resources has increased compared to its usage in recent past, which means that users' perception of the resources has drastically changed. Result from the study indicated that user's perception influences level of electronic information resources usage in academic libraries. Use of e-resources is highly dependent on availability of Internet connection; therefore, academic libraries must try to create hotspots and Wi-Fi in addition to the networked computers to enable users to have access to e-resources.

Usage of e-resources in academic libraries is affected by some challenges which are not insurmountable, this include lack of awareness, lack of training, unreliable Internet connection and insufficient e-resources in some field of study. Therefore, librarians must endeavour to create awareness of available e-resources, training of all level of users, improve Internet access and ensure subsequent subscription to relevant e-resources and databases in different fields of study. That will definitely change the perception that users have about the library and they will be encouraged in using e-resources.

In line with the findings of this study, the following recommendations are made:

1. Electronic information resources should be made accessible on a 24/7 bases. This will encourage usage as well as changing users' perception of IRs in academic libraries.
2. Training of all level of users (students, staff, and researchers) must be taken seriously to ensure that they make adequate use of the resources.
3. Library must carry out an extensive awareness campaign using every available opportunity such as user education, use of library class, congregational meeting, orientation, seminar, workshop, libraries social media page among others to sensitize users about e-resources in the library. This will create awareness of the available information resources in the library.

4. Librarians should assist library users on possible ways to navigate through e-resources to achieve better search results.
5. Libraries must provide a catalogue of subscribed electronic information resources to enable users to easily identify and access relevant e-resources tailored to their information need.
6. Libraries should carry out needs assessment to identify users' information needs in order to subscribe to e-resources that will be useful in their field of study.
7. Internet connectivity must be improved in academic libraries for effective use of electronic information resources by library users.

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