



**Awareness, Use and Users' Satisfaction with Library  
E-Resources by Undergraduates of National Open University of  
Nigeria, Lagos Study Centre**

**La Sensibilisation, L'utilisation Et La Satisfaction Des Usagers  
Des Ressources De La Bibliothèque Numérique Par Les Étudiants  
De L'université Nationale De L'enseignement A Distance Du  
Nigeria, Centre D'études A Lagos**

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**Abstract**

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*The purpose of this study was to ascertain awareness, use and users' satisfaction with library electronic resources by undergraduates of National Open University of Nigeria, Lagos Study Centre. In carrying out this study, four (4) research questions were posed. They are what is the level of undergraduate users' awareness of library e-resources in NOUN? what is the level of undergraduate students' use of library e-resources in NOUN? what is the level of undergraduate users' satisfaction with library e-resources in NOUN? and what are the challenges faced by undergraduate students' in the use of library e-resources in NOUN? The study adopted survey design. Multistage sampling technique was used since the population was large. The study sample population comprised of 722 undergraduates of National Open University of Nigeria (NOUN), Lagos study Centre. The instrument used for data collection was a structured questionnaire. The research questions were answered using SPSS to determine frequencies, percentages, cross tabulations. The 2 hypotheses of this research were*

*measured using linear regression analysis and multiple regression analysis. The major findings of the study revealed: lack of awareness of library e-resources, inaccessibility to some electronic resources, incessant power supply, poor internet access, inadequate computer facilities to access information. Based on these findings, the following recommendations were made: Library management should make sure students are given adequate orientation to increase their awareness and use of the library electronic resources. For users' to be satisfied, there is need for appreciable level of power supply, improved infrastructure, improved Internet facilities among others.*

### **Résumé**

*Le but de cette étude était de vérifier la connaissance, l'utilisation et la satisfaction des utilisateurs des ressources électroniques de la bibliothèque par les étudiants de premier cycle de l'Université nationale ouverte du Nigeria, Lagos Study Centre. Dans le cadre de cette étude, quatre (4) questions de recherche ont été posées : Quel est le niveau de sensibilisation des étudiants de premier cycle aux ressources électroniques des bibliothèques dans NOUN ? Quel est le niveau d'utilisation des ressources électroniques des bibliothèques dans NOUN ? Quel est le niveau de satisfaction des étudiants de premier cycle à l'égard des ressources électroniques des bibliothèques dans NOUN ? Et quels sont les défis rencontrés par les étudiants de premier cycle dans l'utilisation des ressources électroniques des bibliothèques dans NOUN ? L'étude a adopté un plan d'enquête. La technique d'échantillonnage en plusieurs étapes a été utilisée puisque la population était importante. L'échantillon de l'étude comprenait 722 étudiants de premier cycle de l'Université Nationale de l'enseignement à distance du Nigeria (NOUN), Lagos study Centre. L'instrument utilisé pour la collecte des données était un questionnaire structuré. On a répondu aux questions de recherche en utilisant SPSS pour déterminer les fréquences, les pourcentages et les tableaux croisés. Les deux hypothèses de cette recherche ont été mesurées à l'aide d'une analyse de régression linéaire et d'une analyse de régression multiple. Les principales conclusions de l'étude ont révélé : méconnaissance des ressources électroniques des bibliothèques, inaccessibilité de certaines ressources électroniques, alimentation électrique incessante, mauvais accès à Internet, installations informatiques inadéquates pour accéder*

*à l'information. Sur la base de ces constatations, les recommandations suivantes ont été formulées : La direction de la bibliothèque devrait s'assurer que les élèves reçoivent une orientation adéquate pour mieux connaître et utiliser les ressources électroniques de la bibliothèque. Pour que les utilisateurs soient satisfaits, il faut, entre autres, un niveau appréciable d'approvisionnement en électricité, une infrastructure améliorée et des installations Internet améliorées.*

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**Keywords:** *Academic Libraries, e-resources, Awareness of library e-resources, Use of Library e-resources, Users' satisfaction with library e-resources*

**Mots-clés :** *Bibliothèques universitaires, ressources électroniques, Sensibilisation aux ressources électroniques des bibliothèques, Utilisation des ressources électroniques des bibliothèques, Satisfaction des utilisateurs à l'égard des ressources électroniques des bibliothèques*

### **Introduction**

Academic libraries are institutions that are established to take care of the information needs of students, lecturers, researchers and other community of scholars. The reason for setting up the library is to provide information services to its users. Academic library has a critical role to play in supporting the core mission of these higher institutions of learning which are teaching, learning and research. The library system is changing as libraries; (especially academic libraries) are now embracing ICTs thereby encouraging the use of electronic library resources.

Electronic resources can be defined as the electronic representation of information which can be accessed via electronic system and computer network (Johnson, Evensen, Gelfand, Lammers, Sipe & Zilper, 2012). They further stated that electronic resources can be seen as the most recent development in information technology and that they are available in various forms like e-books, digital libraries, online journals, magazines, e-learning tutors and online test because of the

effective presentation with multimedia tools, these e-resources have become the source of information. Electronic resources deliver the collection of information as full text (aggregated) databases, e-journals, e-books, CD-ROMs, image collections, multimedia in the form of CD, tape, Internet, web technology, etc.

User satisfaction is the state that results after a library user has either favorably or positively experienced a service or product. It can be quantified and basically represents the degree to which a library has met a user's needs and expectations. Satisfaction is based on the concept of disconfirmation, which represents the gap that exists between customer expectations and service performance. This gap, in turn, can develop from a user's perception of the relationship between expectations and performance. The concept of satisfaction is similar to an escalator. As users get better treatment which, in turn, leads to a higher level of satisfaction, they raise their level of expectations, demand better treatment, and motivate libraries to strive even harder. While this situation presents library staff with a challenge, it can also create a win/win situation in which libraries gain valuable support from their constituents. While satisfaction is a concept that is based upon past performance, it also involves a forward looking component. Libraries can use instruments that define what their users want or record user experiences and levels of satisfaction.

Awareness is knowledge about something that exists or understanding of a situation or subject at the present time based on information or experience (Ani & Ahiauzu, 2008). It can also be seen as knowledge or perception of a situation, fact, consciousness, recognition, realization, grasp and acknowledgement, concern about and well-informed interest or familiarity in a particular situation or development. Awareness and use of electronic resources is very important so as to keep undergraduates alert of the available media through which they can access needed information. It is also imperative to understand the purpose of using electronic resources by undergraduates. Awareness of the changes in technology in recent years has dramatically altered how information is accessed, stored and disseminated (Tsakomas & Papatheodorou, 2006). Whereas information provision and usage in academic libraries was previously based upon the collection of physical

library materials, it is now increasingly the case that academic libraries are moving into the virtual arena.

The usage of electronic resources in recent years has yielded positive results in the area of teaching and research and through the use of electronic resources, researchers, academics and students now have access to global information resources, particularly the Internet for their scholarly intercourse (Egberongbe, 2011; Ellis & Oldman, 2005). It is pertinent to note that when undergraduates are aware of e-resources they make adequate use of them for academic and research purposes, they may derive satisfaction especially when the e-resources are timely, accurate, make use of them efficiently and effectively. Be that as it may, it has been observed that undergraduates in Nigerian universities are confronted with various challenges relating to inadequate telecommunications infrastructure, high cost of subscription, Lack of awareness of library e-resources, Inaccessibility to some electronic resources, incessant power supply, poor internet access, poor user skills, inadequate computer facilities to access information amongst others in the use of e-resources. Consequently, this study explores awareness, use, and users' satisfaction with library electronic resources among undergraduates of National Open University of Nigeria (NOUN), Lagos Study Centre.

The Library of Congress (2008) defines electronic resources as "any work encoded and made available for access through the use of a computer". It includes electronic data available by remote access and direct access (fixed media, i. e. discs/disks, cassettes, cartridges). It also refers to any electronic resource, remote or direct access, which the library provides access to through official contractual, licensed, or other agreements. Electronic resources are also referred to as digital materials - materials available in a digital or electronic format, i. e. CD-ROM, DVD, e-journals, and web sites (Johnson *et al.*, 2012).

According to Omoike (2013), electronic resources comprise set of instructional materials such as audio and video cassettes, CD ROM, television and radio broadcast as well as multimedia components such as computer and satellites. Undergraduate students make use of e-books, e-journals, electronic reference materials like e-encyclopedias,

e-thesis/dissertation, CD-ROM Databases, e-mail and e-news. Electronic resources have become very important in academic work. Teaching, learning and research have been made easier through the use of these resources. Electronic resources are vital to students learning and research as students have greater access to vast amount of information that is not easily available on print media. These resources can only be accessed using computers and other ICT devices. Online databases are typical e-resources that provide access to information resources, some of these databases are subscribed to by the library and some are free. These include: AGORA, EBSCOHOST, HINARI, MEDLINE, OARE, etc. Through these online databases, students and researchers get access to e-books, e-journals, electronic reference materials like encyclopedias in various disciplines. Compact Disk Read Only Memory (CD-ROM) databases provide access to relevant databases without Internet connectivity. This type of electronic resources is cost effective when compared with online databases that rely on the internet for access. Advancement in technology has opened new prospects for information creation, duplication, storage, access, distribution, and presentation. This has resulted in information products being made available in CD-ROM. The rate at which information sources are being created and converted into electronic format is noteworthy. NOUN Library has a repository of Compact Disk Read Only Memory (CD-ROM) databases from all its collections for use by its students especially the undergraduates which is domicile in the e-library and this can be accessed with the use of computer systems or other gadgets like smartphones, i-pad among others.

#### **Awareness of Library Electronic Resources**

Though electronic resources were first introduced into libraries in the mid 60s, there is still lot more to be done in creating awareness through knowledge development for effective and efficient access (Hawthorn, 2008). Several studies have investigated the awareness of electronic resources in academic institutions in developing countries. For example, Kinengyere (2006) conducted a study to investigate four academic and research institutions in Uganda. The findings showed that available resources were not utilized because users were not aware of the resources, they do not know how to access them, or they do not know what the resources offer. The study concluded that availability of

information does not necessarily mean usage. Baro, Endouware, and Ubogu (2011) in a study to investigate 244 medical students of Delta State University of Nigeria, on awareness of electronic resources, reported that, majority of the students were not aware of some electronic databases that the university had subscribed to. For example, over 70% of respondents were unaware of Medline, and CINAHL (79.9%). Others are HINARI (60.3%) and EBSCOHOST (57.1%). This review is in line with National Open University of Nigeria (NOUN) Undergraduates as they are dispersed across the state of Lagos so their knowledge of library electronic resources was less and there was much wider students' knowledge of web search engine and they use them.

### **Use of Library Electronic Resources**

Electronic resources mostly needed by distance learners for their academic purpose are available on the Internet (Thanuskodi, 2010) and in online journals and databases. This is evident from the findings by Dhanavandan, Mohammed and Nagarajan (2012) who concluded that 38 (44%) of the students used e-resources for studying, and 14 (16%) of users used them for updating their knowledge. A study by Aramide and Bolarinwa (2010) also revealed that distance students regularly used audiovisuals and electronic resources. They used them for carrying out their assignments. Dadzie (2005) conducted a study on 'electronic resources: access and usage'. The study found that usage of some Internet resources were very high, whilst the use of scholarly databases was quite low. The low patronage was ascribed to inadequate information about the existence of these library resources (Dadzie, 2005:290). Dadzie's findings are of concern especially with regard to NOUN since the University subscribes to various online databases such as EBSCO Host, Emerald, Jstor publication, and HINARI, just to mention a few, and at quite exorbitant subscription fees which therefore need to be used. It is based on this that if students do not use these databases optimally, then many of the resources go to waste. The use of electronic resources affords researchers and students the opportunity to have access to global information resources, especially the Internet for their scholarly work. According to Emwata & Nwalo (2013), the use of electronic resources has given rise to new modes of organizing the educational environment in tertiary institutions and has introduced

a new concept of teaching-learning process. Undergraduate students make use of electronic resources for many purposes. They use e-resources mostly for academic purpose that is, to study and prepare for examinations, to do class assignment, and carry out research, retrieving current literature for studies, and to communicate and collaborate with peers and teachers via the Internet on e-mail or by following blog discussions. E-books and e-journal articles are used to acquire knowledge and carry out research by students (Omoike, 2013; Ajayi, Shorunke & Aboyade, 2014). Course materials are provided on CD-ROM for students' use which affords students to peruse as convenient. All these resources have really influenced learning and improved the quality of education as this is evident in distance learning.

### **Use of Library e-resources and Users' Satisfaction**

User satisfaction is also assumed to be positively related to the user's degree of library use. With respect to users' orientation, quality in the library sector is defined as permanent users' satisfaction. Academic libraries should try hard to survive and grow their user base focusing on meeting their users' expectations. Jayasundara (2008) in his paper notes that user expectation and satisfaction studies have become one of the most popular studies in the area of service quality in many academic libraries. The user expectations and satisfaction has been used to determine the service quality which is seen as vital for service organizations to position themselves strongly in a competitive environment (Jayasundara, 2008). Users' satisfaction with library e-resources is based on the level of how the library meet their information needs, the relevance of the materials, availability of resources, accessibility of resources and how they can use such various library resources. Users' dissatisfaction on the other hand is influenced by the means of accessing information of which accessibility will be difficult and its utilization impaired. Satisfaction is to have pleasure, contentment from the information one needs. Arif and Mahmood (2010) examined the satisfaction level of users with the central library collection and services at Allama Iqbal Open University (AIOU), Islamabad, Pakistan. A semi-structured questionnaire was used as a data collection tool from the subjects of the study. The result indicated that a majority (52%) of the respondents frequently visited the library, followed by 47% respondents who occasionally visited the library. The



respondents expressed dissatisfaction with the present library collection, online databases, virtual reference services, interlibrary loan, photocopy facilities, and journals related to subjects. Nevertheless, they were satisfied with the location and the physical setup of the library. The study found that majority of the respondents used library resources for teaching and research. About 54% of the respondents suggested that the library should provide information literacy programs. They also suggested that competent and qualified library staff should be appointed at senior positions in the central library.

### **Statement of the Problem**

Observation has shown that electronic resources are of great importance to the academic and research needs of undergraduates, since they are available in various formats in libraries but undergraduates especially those of National Open University of Nigeria, Lagos Study Centre seem not to be utilizing these e-resources available to them. Could it be that they are not aware of these electronic resources and if they are aware why is it that usage is hindered. If usage is not hindered, then could it be that users are not satisfied with the e-resources in the library. Therefore, the crux of this study was to investigate the awareness, use and users' satisfaction with library electronic resources by undergraduates of National Open University of Nigeria, Lagos Study Centre.

This study would help librarians, library management, higher institutions of learning, government at all levels and other stakeholders to know the trend on awareness, use of library electronic resources, the purpose of use of library electronic resources, users' satisfaction with library e-resources and the challenges of using library electronic resources. This would afterwards help the stakeholders to see the need for innovations on awareness and use of library e-resources especially on orientation and re-orientation, training and re-training that could enhance the awareness and use of library electronic resources.

### **Objectives of the Study**

The main objective of this study was to determine the influence of awareness and use of library e-resources on users' satisfaction by

undergraduates of National Open University of Nigeria (NOUN), Lagos Study Centre. To achieve this, the following specific objectives, sought to;

1. find out the extent of undergraduate users' awareness of library electronic resources in NOUN;
2. determine the level of use of library electronic resources by undergraduate students in NOUN;
3. find out the level of undergraduate users' satisfaction with library electronic resources in NOUN;
4. identify the challenges facing the use of library e-resources by undergraduates in NOUN.

### **Research Questions**

This research was guided by the following questions:

1. What is the level of undergraduate users' awareness of library e-resources in NOUN?
2. What is the level of undergraduate students' use of library e-resources in NOUN?
3. What is the level of undergraduate users' satisfaction with library e-resources in NOUN?
4. What are the challenges faced by undergraduate students in the use of library e-resources in NOUN?

### **Hypotheses**

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

- Ho1 Awareness of library e-resources has no significant influence on users' satisfaction in NOUN.
- Ho2 Use of library e-resources has no significant influence on users' satisfaction in NOUN.

### **Research Methodology**

The survey research design was adopted for the study. The population comprised 17,394 Undergraduates from National Open University of Nigeria, Lagos Study Centre. Multistage sampling technique was used to get the sample for this study. It has sample size of 960 Undergraduates. The sample size was determined with the aid of a table

of calculated sample size developed by Krejcie and Morgan (1970) (See Appendix I). An instrument titled 'Awareness, Use and Users' Satisfaction with Library Electronic Resources' (AUUSLER) was used for data collection. The instrument employed in this study was a self-structured questionnaire. The questionnaire was personally administered and retrieved with the aid of research assistant from Lagos Study Centre.

### Pilot Study

A pilot study was conducted among NOUN students in McCarthy Study Centre, Lagos State. Fifty copies of the questionnaire were administered on a work day to undergraduates at the Centre Library. The respondents at the pilot stage were encouraged to provide feedback on the ambiguity (if any) and structure of the questions. Fifty copies of the questionnaire were returned. All the questionnaire (100%) responses were processed and analysed using Cronbach analysis. Cronbach reliability test conducted to determine the reliability of main constructs in the questionnaire 'Awareness of library e-resources', 'Use of library e-resources' and 'Users' satisfaction' respectively. Gave the results thus: 0.88, 0.92 and 0.74.

### Presentation and Analysis of Data

**Table 1.** Respondents by Gender.

<b>Gender</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Male</b>	358	49.6
<b>Female</b>	364	50.4
<b>Total</b>	<b>722</b>	<b>100</b>

Gender composition of respondents as shown in Table 1 indicates that majority, (364:50.4%) of Undergraduates were females, while the male constituted the minority, (358:49.6%). This indicates that there were more female participants than male participants in this study. This could mean that women did not have equal opportunities of undertaking full-time studies like their male counterparts presumably because of their role of childbearing as well as attending to other household chores. It could also mean that there are more female than male in Nigeria.

**Table 2. Level of Users' Awareness of Library Electronic Resources in the University**

E-Resources Level of Awareness	E-Thesis	Online D/bases	CD-ROM	(online) catalog	E-Journal	E-Past Question Papers	e-Ref Material	E-Books	Search Engines	E-Courseware
Aware	336 (49.5%)	324 (50.8%)	370 (54.3%)	398 (60.1%)	464 (66.9%)	450 (65.7%)	482 (70.6%)	544 (76.9%)	520 (77.9%)	586 (86.1%)
Not Aware	260 (38.2%)	220 (32.6%)	198 (29.0%)	170 (25.7%)	168 (24.2%)	164 (24.0%)	138 (20.2%)	124 (17.5%)	102 (15.3%)	66 (9.7%)
Not Sure	84 (12.4%)	112 (16.6%)	114 (16.7%)	94 (14.2%)	62 (8.9%)	70 (10.2%)	62 (9.1%)	40 (5.6%)	46 (6.9%)	28 (4.1%)
Percentage (%)	100	100	100	100	100	100	100	100	100	100
Total	680	656	682	662	694	684	682	708	668	680

Table 2 shows that average of (447:65.9%) of the respondents were aware of the ten (10) library e-resources while average of (161:23.6%) of the respondents were not aware of the ten (10) e-resources listed and average of (71:10.5%) of the respondents were not sure of the e-resources listed. This implies that substantial number of the undergraduates are aware of the e-resources in the library. This finding contradict with the study of Baro, Endouware, and Ubogu (2011) in a study to investigate 244 medical students of Delta State University of Nigeria, on awareness of electronic resources, reported that, majority of the students were not aware of some electronic databases that the university had subscribed to. For example over 70% of respondents were unaware of Medline, and CINAHL (79.9%). Others are HINARI (60.3%) and EBSCOHOST (57.1%). The findings also disagree with study by Kelley and Orr (2003) who posited that a large percentage of undergraduates were not aware of the availability of the library's online resources.

**Table 3. Level of Use of Library e-resources in NOUN**

E-Resources Level of Use	E-Thesis	Online D/bases	CD-ROM	(online) catalog	E-Journals	E-Past Question Papers	e-Ref Materials	E-Books	Search Engines	E-Courseware
Utilized	330 (51.3%)	340 (52.2%)	358 (55.6%)	534 (78.1%)	404 (58.2%)	514 (78.6%)	488 (73.1%)	508 (72.8%)	426 (63.9%)	408 (61.6%)
Not Utilized	314 (48.8%)	312 (47.9%)	286 (44.4%)	150 (21.9%)	290 (41.8%)	140 (21.4%)	180 (26.9%)	190 (27.2%)	242 (36.2%)	254 (38.4%)
Percentage (%)	100	100	100	100	100	100	100	100	100	100
Total	644	652	644	684	694	654	668	698	668	662

Table 3 shows that average of (431:64.5%) of the respondents utilized the ten (10) library electronic resources while average of (236:35.5%) of the respondents do not utilized the library e-resources. This shows that majority of the undergraduates of NOUN, Lagos Study Centre utilize the library e-resources but seldom utilize electronic thesis/dissertation and online databases. This finding corroborated with the survey conducted by Ani and Ahiauzu (2008) where it was found that the internet has been a major source of developing electronic resources in twenty (20) Nigerian public university libraries. In this survey, 17(89.5%) of the 20 universities investigated for usage of electronic resources had internet connectivity. The study further found out that 13(68.4%) subscribe to online databases, 11(57.9%) use CD-ROMs, 10(52.6%) use e-journals while digitization of the library material constitute 3 (15.8%).

**Table 4. Level of Users' Satisfaction with Library e-resources in NOUN**

E-Resources Level of Satisfaction	Currency	Timeliness	Approach	Format	Access of Lib e-res	Avail of Lib e-res	Quality/Relevance	Accuracy	Ease of Use
Satisfied	506 (77.9%)	538 (81%)	518 (79%)	534 (81.4%)	508 (78.7%)	512 (78.8%)	562 (81.7%)	566 (84.7%)	540 (80.1%)
Not Satisfied	144 (22.2%)	126 (19.0%)	138 (21.0%)	122 (18.6%)	98 (15.0%)	138 (21.4%)	126 (18.3%)	102 (15.3%)	134 (19.9%)
Percentage (%)	100	100	100	100	100	100	100	100	100
Total	644	652	644	684	694	654	668	698	668

Table 4 shows that average of (532:80.4%) of the respondents were satisfied with the nine (9) electronic resources while average of (125:19.6%) of the respondents were not satisfied with the library electronic resources. This also implies that undergraduates of NOUN, Lagos Study Centre were satisfied with library electronic resources. This disagrees with the findings of Arif and Mahmood (2010) who examined the satisfaction level of users with the central library collection and services at AllamaIqbal Open University (AIU), Islamabad, Pakistan. The respondents expressed dissatisfaction with the present library collection, online databases, virtual reference services, interlibrary loan, photocopy facilities, and journals related to subjects. Nevertheless, they were satisfied with the location and the physical setup of the library.

**Table 5. Challenges in the Use of Library e-resources in NOUN**

<b>Challenges</b>	<b>Agree</b>	<b>Disagree</b>	<b>Percent</b>	<b>Total</b>
Incomplete and inaccurate information	288 (43.1%)	380 (56.9%)	100	668
Lack of assistance from library personnel	326 (48.4%)	348 (51.6%)	100	674
Lack/Inadequate skills in search for needed information	352 (51.7%)	330 (48.4%)	100	682
Information Overload	360 (53.6%)	312 (46.4%)	100	672
Difficulties in locating relevant e-resources	362 (54.3%)	304 (45.6%)	100	666
Poor infrastructure	382 (57.3%)	290 (43.2%)	100	672
Inaccessibility to some electronic resources	376 (55.7%)	300 (44.4%)	100	676
Incessant power supply	372 (55.6%)	294 (44.1%)	100	666
Lack of awareness	388 (56.6%)	298 (43.4%)	100	686
Poor Internet access	384 (57.4%)	284 (42.5%)	100	668
Inadequate computer facilities to access information	444 (64.3%)	246 (35.7%)	100	690

Table 5 shows that average of (367:54.4%) of the respondents agree with the eleven (11) challenges in the library while (308:45.65%) of the respondents disagree with the challenges. This implies that a lot needed to be done to improve the quality of service in the library. These findings corroborated with Bankole and Babalola (2012) which revealed that the problems students encountered in their use of internet which include slowness of the server, limited institutional internet facilities, frequent power outage and high cost of usage.

### **Summary, Conclusion and Recommendations**

The study was carried out using National Open University of Nigeria, Lagos Study Centre as a case study. The Lagos Study Centre has more female undergraduates than their male counterparts and majority of the students are adults and there are more respondents in 4001 and 2001 than in 1001 and 3001. From all indications, school of Art and Social Sciences recorded more respondents than School of Management Science and school of Education.

The study investigated the awareness, use and users' satisfaction with library electronic resources in National Open University of Nigeria, Lagos Study Centre. It was carried out to ascertain the extent of awareness of electronic resources in academic libraries, level of use of electronic resources, users' satisfaction with library electronic resources and the challenges to the use of library e-resources. The survey research design was adopted for the study. The population comprised 17,394 Undergraduates from National Open University of Nigeria, Lagos Study Centre. Multistage sampling technique was used to get the sample for this study. It has sample size of 960 Undergraduates. The sample size was determined with the aid of a table of calculated sample size developed by Krejcie and Morgan (1970) (See Appendix I). An instrument titled, 'Awareness, Use and Users' Satisfaction with Library Electronic Resources' (AUUSLER) questionnaire was used for data collection. The instrument was pre-tested for reliability using the Cronbach's Alpha reliability technique. The result of the Cronbach's Alpha test for the three constructs were Awareness of Library e-resources (0.88) Use of Library e-resources



(0.92) and Usersø satisfaction of library e-resources (0.74). A total of 960 copies of questionnaire were administered, 722 copies were returned, giving average response rate of 75.21%.

The collected data were analyzed using descriptive and inferential statistics i.e. simple percentage was used to analyze demographic findings; means and standard deviations were used to analyze research questions while correlation co-efficient and regression analysis with the use of SPSS version 20 were used to analyze the research hypotheses.

## **Conclusion**

The findings revealed that substantial percentages of the undergraduates are aware of some of the library electronic resources such as e-courseware, Internet search engines, e-books, e-reference materials, and e-past question papers. They made use of these e-resources as well as derive satisfaction with using those e-resources especially with regards to ease of use, accuracy, quality/relevance, availability and accessibility of library e-resources to mention but few. With this in mind, one could conclude that generally, awareness, use of library electronic resources has significantly influenced usersø satisfaction in National Open University of Nigeria (NOUN), Lagos Study Centre. This is not without challenges as the level of awareness of some of the library e-resources are low such as electronic theses and dissertations, Online Database, CD-ROM, Library online Catalogue and e-journals. This has affected the level of use of those e-resources as well as the level of usersø satisfaction. Therefore, Library management should make sure students are given adequate orientation on the awareness and use of library electronic resources as these will go a long way in improving the level of awareness and use of library electronic in National Open University of Nigeria Library. There is also need for adequate infrastructure in the area of improved power supply and Internet facilities among others. For usersø to derive satisfaction from the Use of library e-resources, there is need for ease of use of the e-resources, timeliness, accuracy, currency and the format with which the e-resources are produced has to meet reasonable standard.

## Recommendations

Arising from the research findings, the following recommendations are therefore presented:

1. Library management should make sure students are given adequate orientation to increased awareness of the library electronic resources.
2. Academic libraries management should identify ways that will make library staff to have effective and continuance commitment to their responsibilities especially in the area of library use.
3. For users to derive satisfaction from the Use of library e-resources, there is need for ease of use of the e-resources, timeliness, accuracy, currency and the format with which the e-resources are produced has to meet reasonable standard.
4. For users to be satisfied, there is need for appreciable level of power supply, improved infrastructure, improved Internet facilities among others.
5. Management of Academic libraries should provide clear library policies/framework that would bring about increase in library awareness, use and users' satisfaction.

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