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Electronic Services and Teachers' Utilization of School Library Resources in Uyo Metropolis .

Udo, Clement Samuel (CLN)[1]
(clement.udo@fuhso.edu.ng)

Agada, Eric ojobo(PhD)2
(Ericagada@fuhso.edu.ng)

Bonnie Obeka Obande (CLN)[3]
Central Library, Igbinedion University, Okada Edo State P.M.B 001, Nigeria
(bonnie.obande@iuokada.edu.ng)

[1,2]Federal University of Health Sciences, Otukpo

ABSTRACT

The study was conducted to examine how electronic services influence teachers' utilization of school library resources in Uyo metropolis. The research design adopted for the study was expost-facto research design. The population of the study comprised 102 class teachers in selected private secondary schools with functional school libraries in Uyo metropolis. The sample size was 102 respondents. Census sampling technique was used in the selection of sample size. A researcher-structured questionnaire entitled "Electronic Services and Teachers' Utilization of Library Resources Questionnaire (ESTULRQ)" was used for data collection. The instrument was face-validated by an expert in Library and Information Science. The researcher personally administered copies of the questionnaire with the help of research assistants. The obtained data were analysed using mean and standard deviation to answer research questions and independent t-test to test the hypotheses at 0.05 level of significance. The results revealed that electronic circulation service and electronic reference services significantly influence the utilization of library resources in selected private secondary schools in Uyo metropolis. It was recommended among others that the School library should be made use of electronic circulation services in charging and discharging library materials for expansive service delivery.

Keywords: **Digital services, electronic reference, electronic circulation, School Library**.

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Background of the study

Libraries are established to meet the information needs of defined groups of users in a definite environment. School libraries uniquely exist to cater for and meet the information needs of the teachers, students, administrators, parents and other members of the school. Its responsibility is to support the parent institution's curriculum with relevant information resources that enhance the accomplishment of its goals. School libraries also known as school library media centres, are found in preprimary, primary and secondary schools. They serve as the backbones of functional education without which academic excellence at that level of education may not be achieved. School library supports the school curriculum by providing up-date information resources and services to keep staff and students abreast of new development. The library equally promotes the development of reading skills and encourages the acquisition of long term reading habits through listening and viewing a variety of learning materials. The 21st century school library are now adopting library automation as a platform of providing electronic services to their users.

Electronic services refer to various offers made available to users by service providers electronically. Electronic services also referred to as e-services are those which a provider makes use of Information and Communication Technologies (ICT) whereby information is communicated by means of an approved information system. They are services that deliver information product or service that can be used or accessed using the internet (website, email, messaging services, text message among others) and/or software applications that are used on computers including mobile or hand-held devices(Dhamdhere, 2012).

More so, the strength of any library depends on its digital collections, the ease to accessing them, the relationship of the librarians to develop and maintain the users who learn, use, and evaluate their resources. This underlines the glaring fact that electronic library Services is a very essential component of a quality knowledge system (Igboechesi and Dang, 2019). The electronic library services also ensure self-education and foster the use of E-learning in teaching and learning process in schools. The importance of electronic library services cannot be overemphasized especially in this era of great technological advancement. Its existence has helped in solving a lot of problems encountered as a result of doing things manually or traditionally. With the existence of electronic library services, the following services are enabled in an institution's electronic library services: electronic circulation service and electronic reference service which is the focus of this study.

Circulation services in the library includes checking in and out of library materials to patrons, renewing the borrowed items, reserving highly consulted materials, reserving items for a patron, checking in materials returned, checking the materials for damage at the time of return and forwarding damaged materials for repair when that is possible or making request for renewal. Electronic circulation services refer to processes in which library materials are loaned out to library users through lending procedures operating in libraries virtually. It relates to charging and discharging of library materials from users and back to the library over a period of time. Computer technologies are used to eliminate cumbersome process of charging and discharging in the manual process of circulation.

Reference service in libraries is regarded as the personal assistance offered to users in search of information through ready reference sources. Electronic reference service is an online based service that enables the users to connect and interact with a librarian remotely on a question and answer basis anytime. They are offered using ICT facilities like computers, internet, e-mail,CD-ROM and search engines. According to White (2016), electronic reference service can utilize various media, including email, web forms, chat (including instant messaging services) video, web customer, call center software, voice over internet protocol (VOIP). It enables librarians to locate e-resources in electronic formats and provide same to patrons. In libraries, e-reference service enables the user to have a problem and stress-free access to library resources and services. It also enhances a better experience and relationship between the user and the library.

Utilization in library perspective is the extent to which library resources and services are consulted to meet users' information and academic needs. It would amount to waste of funds and effort when information resources acquired by a library are not utilized by the clientele. Hence,the capacity and capability of the school libraries at providing information resources and services can never be appreciated without adequate utilization of the resources by patrons. Premised on this note, this study is conducted to examine electronic services and teachers' utilization of school library resources in Uyo metropolis.

Statement of the Problem

The provision of electronic services in school libraries has become an important aspect of the school educational system because of changes in pedagogy and the information environment. Teachers are required to keep up to date with information to remain effective in teaching, learning and research have become lively activities in schools consequent of the import of Information and Communication Technologies. In effect, the provision of electronic services is actively practiced by school librarians for the purpose of providing easy and immediate access to a large amount of information resources that support the school curriculum, teaching, learning and research.

However, it has been observed by the researcher that many school libraries have adopted electronic services such as the electronic circulation service and electronic reference service but they seem scarcely available and accessible to users especially teachers. Meanwhile, utilization of information resources depend largely on resources availability and accessibility without which the resource remain irrelevant and E-services grant access not only to text data but also to graphics, sound, motion video and enable high level retrieval to be accomplished by teachers, students and other users. This study therefore is conducted to examine how electronic services influence teachers' utilization of school library resources in Uyo metropolis.

Objective of the study

The purpose of this research is to explore how electronic services influence teachers' utilization of school library resources in Uyo metropolis. Specifically, the study intends to:-
1. Determine the influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.
2. Examine the influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Research Question

The following questions were formulated to be answered by this study
1. What is the influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis?
2. What is the influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis?

Hypotheses

Base on the research questions, the following null hypotheses were formulated to guide the study.

1. There is no significant influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis
2. There is no significant influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Theoretical Framework
Diffusion of Innovation (DOI) Theory (1962)

Diffusion of Innovation (DOI) Theory is a social science theory that explains how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. So that people, as part of a social system, adopt the new idea, behaviour, or product. In the theory, adoption means that a person does something differently from what they had previously done such as purchase or uses a new product, acquire and perform a new behavior.

The theory upholds thus: that a person who adopts an idea, product or behaviour must perceive it as new or innovative and the adoption of a new idea, behaviour or product does not happen simultaneously in a social system; it is a process whereby some people are more apt to adopt than others.

The stages, by which a person adopts an innovation and diffuses it include awareness of the need for an innovation, decision to adopt (or reject) the innovation, testing the innovation by use and continued use of the innovation. Five main factors that influence the adoption of an innovation include the following:

Relative Advantage - The degree to which an innovation is perceived to be better than the idea, program, or product it replaces.

Compatibility–the consistency of innovation with the values, experiences, and needs of the potential adopters.

Complexity - How difficult the innovation is to understand and/or use.

Triability - The extent to which the innovation can be tested or experimented with before a commitment to adopt is made.

Observability - The extent to which the innovation provides tangible results.

Research conducted using DOI found that people who adopt an innovation early have different characteristics than people who adopt an innovation later. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation.

In relation to this study, teachers' adoption and use of electronic services is based on their perception of the service as an innovation needed in the present dispensation to accelerate the use of available resources for the accomplishment of their tasks. The theory is therefore considered a useful guide for the researcher based on teachers' characteristics and the types of library resources available and accessible in the selected secondary schools under investigation.

Information Provision and Capacity Utilization Theory (1992)

Information Provision and Capacity Utilization theory was propounded by Itoga and Neelameghan in 1992. Information Provision and Capacity Utilization upholds that access to information is not equal to all classes of users. The capacity of effective use of information equally differs among individuals according to their profession, occupation, gender, age, culture, education, social status, marital situation, residence among others. Information utilization is also founded on its ability to satisfy the needs of the seeker. In summary, the principle of information use is premised on goal, availability, process and user satisfaction.

In relation to this study, it requires that information users understand himself within the context of his/her job responsibilities, age, gender, literacy level or personal characteristics. Teachers should understand their functional environment which is educational setting and determine how useful a product, service or behaviour is in relation to their task and successful accomplishment. This theory is relevant to this study because it provides a theoretical framework that supports the examination of teachers' use of library services and resources that are available in the school library. It will serve as a guide for investigating the utilization of electronic circulation service, current awareness service and reference service that are provided to teachers in the selected private secondary schools in Uyo metropolis.

Conceptual Framework
Concept of Electronic Services

Electronic services can be defined broadly as an information access service in which users find, retrieved, and interact with information resources electronically. Electronic services encompass the typical traditional library and information services as well as other global information services through computer and telecommunication system. According to Ojedekun and Okafor (2011) ICT has radically transformed most of the services provided by a library. ICT is heavily utilized in the storage, processing and dissemination of information. This has made the organization of information very efficient, the delivery of basic information services more effective and the dissemination of information to users easier. It has eliminated a lot of routine and repetitive tasks in the library.

In other words; many libraries either have gone electronic or are going electronic. Some have moved to implement integrated library system to build digital collections, Institutional Repositories (IR) to provide electronic services such as access to internet, online journals and workstations for general computing like word processing, spreadsheet, data analyses and a host of other computer-based applications. Libraries are now putting more emphases on electronic and digital information resources.

Ekere, *et al*. (2016) showed the various electronic services in libraries as including online internet search services; online reference services; online cataloguing and classification service; customer care services; management of online databases; Subscription services; awareness and workshop services; Audio and video communication services; news groups/dialogue databases; electronic document delivery Services; Interoperability services; Technical training in ICT for staff and users; online inter-library services; digitized finding aids such as online indexes and bibliographies and online cataloguing and classification services.

Okerson (2019) posited that e-library services play prominent roles in promoting research in academic through provision of wide arrays of researchable information resources, mechanized access and retrieval information system. Having all the research articles, abstracts, thesis, dissertation, conference proceedings, textbooks, index and other reference material, students and academic staff tend to produce a better and more quality research project in a timely manner and with relative ease. Impact of electronic library services on research according to Trivedi (2010) includes provision of access to large amounts of information to users wherever they are and whenever they need it, access to primary information sources, support of multimedia content along with text network accessibility on Intranet and Internet, user-friendly interface, hypertext links for navigation, client-server architecture. The author further observed that library e-services will continue to spread out, offering more full-text electronic journals and indexes and provides bibliographic access to full-text periodicals either through cataloguing, databases among others. It also provides Web forms for user feedback, and perhaps a virtual librarian who interacts in real time chat or video conferencing.

Concept of Utilization of Library Resources

Information utilization is the practical and maximum use of library resources that have been identified and acquired for the purpose of solving a problem or achieving a set goal. Utilization also entails the action of making practical and effective use of something, steps to increase the utilization of resources, or action taken to increase the use of something. It also entails putting in place strategies that entice information seeking processes especially actions that foster skill acquisition so as to enable the patron utilise its resources. Information resources' utilization in libraries is a process comprising of initiation, selection, formulation, collection and use of information resources. It is simply the process which initiates the search and use of information resources for answering pertinent questions of great importance to the information seeker. In educational context, Bitagi and Garba(2014) asserted

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that utilisation of information resources is the extent to which the resources of the library are actually used for teaching, learning and research. Ibrahim and Sakiyo (2015) opined that utilization of information resources connotes pattern and frequency of information resources usage by the library's community of users. Iinformation resources utilization which is the actual putting into appropriate use of acquired information may differ from person to person, one discipline to another, one faculty to another as well as from one corporate organization to the other according to their information needs and other socio-economic imperatives.

In the case of information resource utilisation by user, strategies must be put in place to enhance the utilisation of resources, especially actions taken to acquire skills that will enable the user to utilize the resources. Uzoagba, *et al* (2012) affirmed that library information utilization entails library users visit to the library to consult its information resources and the services that it offers in order to satisfy their information needs. Utilization entails that one party offers something that the other party desires; and the desiring party comes to get that thing. In essence, the library offers information services that the users desire; thus, they patronize the library by coming to the library to seek for the services, in order to satisfy their needs. Even though the influence and implementation of information and communication technology (ICT) in library practices enables users to remotely patronize the services of the library, there is need also to influence their patronage and utilization of the physical library resources. To this end,school libraries now offer electronic services to enhance users' frequent, access andutilization of its resources.

Electronic Circulation Service

Electronic circulation services refer to processes in which library materials are loaned out to library users through lending procedures operating in libraries using information and communication technologies. It relates to charging and discharging of library materials from users and back to the library over a period of time. Electronic circulation services, according to Whong and Zakari (2014) involve mechanization of activities such as charging of books to users, renewing of books; processing, reservation, monitoring utilization of books; operating short-term loans of document, overdue notices and calculating fines, discharging returned materials and checking for possible old requests. Consequently, a lot of time is wasted in carrying out these functions manually. Application of computer technologies in circulation services as observed by Yemi-Peters*et al.* (2019) is the cherished goal of any library whereas manual charging is characterized by long queues and unnecessary delays which are prevalent in libraries. The filling of users` cards and keeping of statistics is not only cumbersome but also out of control as filling of cards spills over to next day on several occasions.

Computer application in circulation operations enhances the process of lending and locating library information. It also provides up-to-date information on loan services, accurate dissemination of information on overdue items; usage statistics and pre-preparations of printed circulation lists, information on fines and payment from library defaulters which help teachers have better user experience in the library (Wong, 2014). Similarly, Ezeani (2010) supported the view that task of circulation section of library can be made easier by use of computer technologies. Borrowers can carry out self-issue over Internet in certain libraries. Status of borrower can be ascertained if lending limits have been reached. Borrower is automatically made to see which other items are on loan. Computer could also reveal if requested material is mutilated or out of circulation. Provision can also be made to reserve desired informational materials. Besides, data provided by computerized circulation system can contribute to effective management of stock. Library at a glance, can also know the amount of fines collected. Invariably, time for sorting of overdue cards is saved.

However, for electronic circulation services to be effective, the computer serves has the most important ICT device that helps input information and process transactions such as charging and discharging in circulation service, which allow for effective and efficient service delivery. According to Aina cited in Whong and Zakari (2014), the application of technologies on routines and operations peculiar to the library has improved efficiency in resource organization, service delivery and dissemination of information making them effective and easy while at the same time eliminating repetitive and routine tasks in the library.

Electronic Reference Service

Electronic reference services are internet-based question and answer service that connects users with individuals who possess specialized subject knowledge and skill in conducting precision searches. White (2016) defined it as an information access services in which people ask questions via electronic means (such as e-mail or web forms). In turn, knowledgeable individuals answer questions, and responses are transmitted via electronic means. Most electronic reference services have a web-based question submission form or an e-mail address or both. Users are invited to submit their queries by using web forms or through e-mail. Once a query is read by a reference librarian, it is assigned to an individual expert for answering. According to Steven (2016), a reference service librarian responds to the query with factual information or a list of information resources. The response is either sent to the user's e-mail account or is posted on the web so that the user can access it after a certain period of time.

Electronic reference services can utilize various media, including e-mail, web forms, chat (including instant messaging services) video, web customer call center software, Voice Over Internet Protocol (VOIP). Library reference services whether at the desk, by synchronous media such as chat, are generally provided in an interactive setting that involves two parties, the librarian and the user. The provision of electronic reference services, specifically via e-mail, enables users who were unconformable approaching a librarian in person to submit anonymous questions to a virtual reference service (Coffman, 2013). Additionally, Bushallow –Wibur, (2012) stated that some user groups do not come to the library due to physical disabilities, scheduling constraints, or geographical distance. These users too might find virtual reference to be more accessible for their needs, as it provides service to users any time, any place. Users can send reference queries via e-mail whenever they have questions.

Given its enormous relevance, it is possible that reference services will be more equal when provided online because during the reference interview (Via e-mail) blatant differences do not interfere. In a nutshell, digital reference service, especially in developed countries, has come of age, although it is still evolving day-to-day and becoming more and more interesting. Libraries in developed countries use a mix of the aforementioned types of digital reference tools to provide reference services. Adeleke and Nwalo(2017) observed that many libraries have developed into hybrids, accessing or developing digital collections alongside print-based collections. As such reference services can be provided traditionally through face- to-face method or digitally as the case demands.

Methodology

The ex- post facto research design was adopted for this study. The study was carried out in private secondary schools in Uyo, the capital city of Akwa Ibom State, Nigeria. The population of the study comprised102 class teachers in selected private secondary schools with functional school libraries in Uyo metropolis. The sample size was 102respondents. Census sampling technique was adopted. A researcher-structured questionnaire entitled "Electronic Services and Teachers' Utilization of Library Resources Questionnaire (ESTULRQ)"was used as the instrument for data collection. The instrument was subjected to face validity by research experts. Reliability test was conducted and derived at 0.8 reliability coefficient. The researcher, with the help of research assistants administered copies of the questionnaire to the respondents in their different schools. Research questions were answered using mean and standard deviation while t-Test was used in testing hypotheses at 0.05 level of significance.

Presentation of Results

Research Question 1: What is the influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis?

Table 1: Item by item analysis of the influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis(n = 102).

S/N	Access Skills	SA	A	D	SD	MEAN	STD	Decision
1	locating appropriate media tools	227	81	12	4	3.6512	.57175	SA
2	using appropriate media tools	147	161	10	6	3.4043	.58366	A
3	Reaching targeted information through media tool	179	97	39	9	3.4043	.73403	A
4	Comprehending the meanings of contents	179	112	22	11	3.4506	.67280	A
5	Accessing information using technological knowledge	163	125	21	15	3.5031	.50076	SA
6	physical access to media messages	179	122	17	6	3.5525	.49801	SA
7	The ability to disseminate media contents properly	211	92	13	8	3.6512	.47732	SA
8	Reaching targeted information	195	89	29	11	3.6019	.49027	SA
9	rational inquiry of media contents	228	64	13	19	3.6049	.66172	SA
10	gathering information using multiple sources	196	87	28	13	3.6049	.48962	SA
11	Managing media tools that are important to users	195	113	10	6	3.5525	.58914	SA
12	Providing access to collections for users	179	100	32	13	3.4537	.66841	A
	Cluster Mean					**3.5363**	**.57812**	SA

The result in table 4.1 reveals the mean range for the response on how electronic circulation service influence teachers' utilization of library resources in selected private secondary schools in Uyo metropolis. The cluster mean of 3.54 for all the items implies that the respondent agreed that electronic circulation service influence teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Research Question 2: What is the influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis?

Table 2: Item by item analysis of the influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis(n = 102)

S/N	Electronic reference service	SA	A	D	SD	MEAN	STD	Decision
1	I received email from my library	12	9	54	27	3.031	.50076	SD
2	Our library answer my query online	36	21	41	4	3.4043	.58366	A
3	There is access to online reference sources in our library	8	23	62	9	3.1574	.57549	A
4	The reference section of our school is automated	12	39	27	24	3.2562	.69882	A
5	There are electronic copies of reference sources	8	25	39	30	3.2037	.68273	A
6	Our library has social media handles	15	22	63	2	3.1019	.70302	A
7	Our school library has website	11	42	13	36	3.1481	.80033	A
8	Users send their feedbacks online	12	41	29	20	3.3519	.65810	A
9	There is quick response to users need electronically	9	64	13	16	3.5000	.67462	SD
10	Reference librarians answer questions online satisfactorily	32	49	11	10	3.2006	.68138	A
	Cluster mean					**3.2827**	**.65589**	A

The result in table 4.3 reveals the mean range for the response on how electronic reference service influence teachers' utilization of library resources in selected private secondary schools in Uyo metropolis. The cluster mean of 3.28 for all the items implies that the respondent agreed that electronic reference service influence teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Research Hypothesis 1: There is no significant influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis

Table 3:t-Test analysis of the influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis

Variables	Mean	N	Std. Dev	Std. Error Mean	t-cal	t-crit	df	Dec
Electronic Reference	32531	102	.62766	.03487				
SD Utilization	2.6080	102	.74072	.04115	15.996	198.	100	Sigf

The result in table 4.4 showed a calculated t-value of 20.87 and table value of 1.98 at a significant level of 0.05. Since the calculated value of **(20.87)** is greater than the critical value found in the t-table (**1.98**), the null hypothesis which stated that there is no significant influence of electronic circulation service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis, is rejected. Thus, it implies that electronic circulation service has a significant influence on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Research Hypothesis 2: There is no significant influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Table 4: t-Test analysis of the influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Variables	Mean	N	Std. Dev	Std. Error Mean	t-cal	t-crit	df	Dec
Electronic Reference	32531	102	.62766	.03487				
Utilization	2.6080	102	.74072	.04115	15.996	198.	100	Sigf

The result in table 4.6 showed a calculated t-value of 15.996 and table value of 1.98 at a significant level of 0.05. Since the calculated value of 15.996 is greater than the critical value found in the t-table (**1.98**), the null hypothesis which stated that there is no significant influence of electronic reference service on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis, is rejected. Thus, it implies that electronic reference service has a significant influence on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis.

Discussion of Findings

The analysis of data and the result finding revealed that electronic circulation service has a significant influence on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis. The finding is in line with Aba, *et al* (2015) who found that ICTs are utilized in circulation operations in the Federal University Libraries; ICT devices are available for circulation operations in the libraries among others. The analysis of data and the result finding further revealed that electronic reference service has a significant influence on teachers' utilization of library resources in selected private secondary schools in Uyo metropolis. The finding was supported by Adeleke and Nwalo(2017) who found out that electronic reference service was ranked most available and used among other services.

Conclusion

Base on the finding of the study, it is concluded that electronic services is actively practiced by school librarians for the purpose of providing easy and immediate access to a enormous quantity of information resources that support the school curriculum, teaching, learning and research.

Recommendation

The following are the recommendations made in the light of the findings of the study:
1. School library should made use of electronic circulation services in charging and discharging of library materials.
2. Librarians in school libraries should make use of electronic reference services in order to provide cutting-edge services.

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