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# Awareness and Use of Electronic Resources in University Libraries: A Case Study of University for Development Studies Library

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**Awareness and Use of Electronic Resources in University Libraries: A Case Study of  
University for Development Studies Library**

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**Abstract**

Academic libraries are hub of knowledge and hence are considered as integral parts of academic life. Academic libraries have been in existence for over 500 years and are still very useful today to all educational institutions. The advent of Information and Communication Technology has led to the use of electronic resources in libraries. However, empirical studies have shown that the use of these resources by faculty members is very low. The objective of this study therefore, was to examine the use of electronic resources by lecturers of the University for Development Studies, Wa campus. Primary data were collected from 80 lecturers through the use of a simple random sampling procedure. The data were collected with the aid of a questionnaire and analysed through the use of binary logistics regression model. The results indicate that 88.8% of the respondents were users of the Library and 65% were aware of the availability of e-resources in the Library. This suggests that awareness is high but utilization is low. The determinants of e-resource utilisation in the Library include purpose of Library visit and sources of awareness of the e-resources in the Library. Besides, it was discovered that inadequate Library infrastructure, low internet bandwidth, and inadequate trained library staff were the major challenges confronting the use of e-resources of the Library. The study therefore, recommends that efforts to improve the use of e-resources in the Library should include ways of creating user awareness, training/workshops for users and staff, and responding to the challenges confronting utilisation.

**Keywords: E-Resource, Academic Libraries, Library Research, Library Use, User Awareness.**

## **1.0 Introduction**

Libraries are collection of sources of information that are available for borrowing and for reference. They are hub of knowledge mines and hence a central and integral part of academic life (Rao, 2011). The first Library dates back almost 5000 years and consisted of the collection of clay tablets later replaced by the printed book (Bothma *et al.*, 2014). This was gradually transformed into paper and other printed materials that have been kept in the Library. Today, libraries still play the primary function of academic life by imparting education through learning, teaching and research (Rao, 2011). The role of libraries in both past and present times makes them the backbone of educational institutions. In the public and private sector of developing countries, academic institutions are now using libraries as the most suitable institutions that can make a powerful change in society (Vilgi *et al.*, 2017; Shafique *et al.*, 2011).

In modern times, the content of libraries is not restricted to physical formats such as books, magazines or journals. Libraries are now shifting from traditional printed resources to the use of Information and Communication Technology (ICT) and other electronic-driven services (Nnadozie and Nwosu, 2016; Okazie, 2016). However, the use of electronic resources does not take the place of printed resources but facilitates it through access to large stock of Library materials (Okazie, 2016). The changes that have occurred in the world of ICT are what have shifted the content of libraries' resources from printed information to online information resources (Israel and Edesire, 2016). They also make electronic sources of information available to users because e-learning is giving new dimension in learning and hence affecting education in many ways (Bajpai *et al.* 2016). Besides, following technological revolution, libraries do not need to be in a physical space to be able to provide information to its users. The main reason is that ICT is contributing significantly towards the removal of geographical barriers across the

globe (Prakash, 2017). Libraries have also formed cooperation among themselves to facilitate resources sharing.

Moreover, the use of information technology in libraries is not only a choice but inevitable in the era of information technology (Dar *et al.* 2017). Libraries are gradually establishing resource sharing to reduce cost and meet the requirements of user demands (Prakash, 2017). This establishes a direct link between libraries and information services with joint influence on knowledge discovery and dissemination in the digital era (Atram, 2017). The use of information technology has created advance contribution in the information technology field which has improved the services of libraries significantly. Besides, the application of ICT in libraries is providing opportunities to users to access and utilize both online resources and other services effectively (Saikia and Gohain, 2013; Atram, 2017; Prakash, 2017).

Modern day libraries have both print and non-print documents with gadgets and equipment used to access information (Kumar, 2016). Some of the equipment include: computers, digitization machines, CD-ROMs, scanners, printers and internet which have contributed immensely to make the transformation of libraries a success (Dar *et al.*, 2017). The recent dramatic change in technology has altered how information is accessed, stored and disseminated. This means libraries are moving in the virtual arena, and making it easier for advances in technology and e-publishing access to information on a local, regional, national and international basis, by overcoming the traditional barriers of time and space.

Electronic resources are therefore available widely in many higher academic institutions worldwide, and can be accessed anywhere and by many people or users at the same time, which makes it very convenient to use. To satisfy the information needs of the many universities'

community and to provide timely and accurate information to its users, huge amounts of monies are spent by Library management to subscribe to these e-resources to satisfy users' information needs as well as satisfy the teaching, learning and research needs of the university. The University for Development Studies (UDS) has also spent substantial amount of money in subscribing to electronic resources in order to meet the requirements of user demands. It is only appropriate and economical that these resources are optimally utilised to contribute to the academic achievements of lecturers and the faculties and also get value for money. In spite of the value of e-resources and ensuring that it is available for use by Library users, studies have shown that usage is not up to the expected level. Besides, many recent empirical studies (Kwadzo, 2015; Isaac, 2016; Gangadhar et al, 2017) have been conducted on the use of Library resources but the case of Library use in the University for Development Studies in Ghana has not received any attention. It is therefore, the need to conduct a study to analyze the extent of user awareness of electronic resources and utilisation in the UDS Library using Wa campus as a case study.

## **2.0 Literature Review**

An academic Library manages the intellectual property of educational institutions and should take up major tasks in raising the level of education in society (Candan 2015). According to Chinnaraj and Tamilselvan (2016), academic libraries should therefore, take some initiatives to satisfy their users. Some of the major initiatives should include the use of e-resources and other available technologies to improve upon Library usage.

Electronic resources are systems in which information is stored electronically and made accessible through electronic systems and computer networks. These resources include OPAC, CD-ROMs, Online-Databases, E-journals, E-books, Internet resources (Oak, 2016). The use of

electronic resources has made users to become more technologically friendly. Besides, Bajpai *et al.* (2016) in an attempt to offer explanation to e-resources place much emphasis on e-learning. They maintain that e-learning is a technique in which a user may use different technologies, internet, computer technology, and multimedia to replace the conversational educational system. By analogy, libraries also adopt modern technologies as explained by Bajpai *et al.* (2016) to make Library resources available to users in electronic form. This explains why in this modern era of digital technology, e-books are occupying a prominent role in libraries (Isaac, 2016). In a similar dimension, Bajpai *et al.* (2016) explain that e-learning is giving a new dimension to the educational sector through the use of digital technology. In this 21<sup>st</sup> century, Open source software is increasingly being adopted in libraries because of their relative advantage for public use (Gangadhar *et al.*, 2017). This offers greater opportunity for mass access and utilisation of e-resources.

Many empirical studies have indicated that the use of electronic resources in the Library is an effective way of increasing access and convenience in Library utilisation. For example, Vijayakumar and Gopalakrishnan (2016) exclusively demonstrate the effectiveness in digital libraries in universities. Their results suggest that users of digital Library systems were satisfied with the utilisation of the resources. Kumar and Gopalakrishnan (2016) also, maintain that e-resources are importantly in the design of modern libraries because of their relative convenience in usage. Both Israel and Edesiri (2016) and Naick and Bachalla (2016) agreed with each other in their position that, e-resources facilitate access to relevant and current information for learning and research development. While agreeing with the position of other empirical studies on the relevance of e-resources utilisation in higher educational institution libraries, Sujatha and Rao (2016) further indicate that the performance of tasks is very straightforward in libraries. They

added that the use of e-resources in libraries make exploration of new features by try and error easy and simple. Besides, Isaac (2016) argued that electronic resources have high propensity of attracting new users to libraries and satisfying their specific needs. This implies that, if the contents of Library resources are universal in coverage through e-resources technology adoption, user satisfaction will invariably be high (Okezie and Onyekweodiri, 2016). In the submission of Kumar and Gopalakrishnan (2016), the challenges of higher educational institutions can be met through initiatives in e-learning, by placing much emphasis on the critical role of e-resource utilisation in modern academic libraries.

Various empirical studies such as El-Berry (2015), Akpojotor (2016), Azubuike (2016), Chirra and Madhusudhan (2009), and Atakan *et al.* (2008) reported findings on user awareness of e-resources availability in libraries. Such studies have found that clients were aware of and used the e-databases available to them. For example, Chirra and Madhusudhan (2009) in a survey on the use of electronic journals by doctoral research scholars of Goa University, India, revealed that all (100%) of respondents were aware of the e-journals of the Consortium and accessed them. This suggests that awareness of the availability of e-resources in a Library promotes their use.

Thanuskodi and Ravi, (2011) in their study on “Uses of Digital Resources by Faculty and Research Scholars of Manonmaniam Sundaranar University”, found out that about 67.14% of the faculty members were familiar with the use of digital resources. The study also reported that majority of the faculty members used digital resources for research purpose. Moreover, faculty members were observed to have developed keen interest in learning the required skills for the

usage of digital resources through self-study. The results of Antony and Vijayakumar (2016) are in agreement with the findings reported by Thanuskodi and Ravi, S. (2011).

In southern Nigeria, post graduate students of Library and information science are quite aware and highly use electronic information resources (Akpojotor, 2016). This study by Akpojotor (2016) also reported that the students are skilled in the use of electronic information resources thus suggesting high level of familiarity with e-resource use in the Library. Similarly, in South Western Nigeria, Azubuike's (2016) empirical research indicates high rate of awareness of information literacy skills and awareness of electronic information resources among. Similarly in Egypt, academic staffs were found to be aware of and use the academic social network sites. This was supported by Colaklar and Aras (2015) that social media tools are very effective means of creating user awareness of Library resources. Awareness and utilisation of e-resources was also found to be high among male students in Nairobi, Kenya (Gor *et al.*, 2016). Previous studies such as Korobili *et al.* (2005) reported use of printed resource such as books and journals more than e-resources.

Different variables often contribute to utilisation of e-resources in the Library. In his study, Bhat (2009) found out that the use of both traditional and modern methods of awareness creation influence utilisation of library resources. He cited specific examples traditional methods such as lunching an event, personal visits and training as mediums of awareness creation. Besides, modern means of awareness creation among potential users of Library resources were cited such as printed brochures, posters, newsletters, and emails. The study therefore, promotional activities have significant influence on Library resource utilisation. Studies have reported on the familiarity with computer literacy skills as a necessary condition for e-resource use. Saikia and



Gohain (2013), for example, have shown that user guidance is necessary to help Library users to meet their information needs and make users aware of the available Library resources and services. The results of a study by Ramayah and Aafaqi (2004) suggest that self-efficacy has a significant direct impact on perceived usefulness and perceived ease of use when predicting e-library usage. This means that personal attributes of the user play important role in the determination of library usage. Other studies, such as Oak (2016) reported that utilisation of e-resources in the Library is influenced by the availability of alternative sources of accessing similar resources. According to Prabhakar *et al.* (2017) the frequent use of facebook, Twiter, YouTube among others provides alternatives to the use of libraries. This suggests that people may be using e-resources for academic purposes but not directly from libraries.

In the foregoing discussion, studies (e.g El-Berry, 2015; Amusa and Atinmo, 2016; Saikia and Gohain, 2013; Tripathi *et al.*, 2016) have indicated that many users that are aware of e-resources in the Library were found to be users. This direct link suggests that awareness facilitates utilisation. Despite the numerous evidences on the high utilisation of e-resources resulting from user awareness of such resources in the Library, some other studies reported contradictory findings. Adeniran (2013) in her study in Nigeria found out that most of users of the Library are aware of the electronic information resources available in the University Library but the usage rate is low. This brings to the fore the controversy on the direct link between awareness and utilisation and this makes it imperative to conduct a separate study in the University for Development Studies on awareness and utilisation of e-resources to establish or otherwise the link between awareness and utilisation.

A study by Saikia and Gohain (2013) maintain that user guidance is necessary to help users meet their information needs and the creation of awareness of resources in the Library. This implies that the availability of Library staff to guide users, as well as organization of workshop as well as dissemination of useful information about e-resources in the Library influences utilisation. Colaklar and Aras (2015) reported that the use of social media by Liberians to create user awareness of the availability of resources in the Library and how to use them significantly influence utilisation of e-resources in the Library. Other determinants of utilisation of e-resources in the Library have been associated with the challenges confronting users in the Library. Amusa and Atinmo (2016), Nnadozie and Nwosu (2016) all agree that limited Library infrastructure such as ICT equipment significantly reduce utilisation of e-resources. This submission may be the reason for higher levels of awareness with low utilisation as reported by other studies.

In the University for Development Studies, various attempts such as notices, workshops, internal memo, personal interactions with librarian among others, have been made to increase user awareness and utilisation of the e-resources. However, the influence of these mediums on utilisation has not been employed by any empirical study. This makes it imperative to identify the factors influencing utilisation of e-resources in the University for Development Studies.

Evidence on the challenges confronting e-resource use in libraries is reported by many empirical studies. For example, Adeniran (2013) discovered that a large portion of users made use of the e-resources mostly for research, assignments current awareness and other important information. However, utilisation was found to be low and further investigations point out that some factors including: large mass of irrelevant information, download delay, lack of search skills and high

cost of access were found to be the challenges militating against Library usage. In their study in the University of Agriculture Library in Abeokuta, Nigeria, for Oduwole and Akpati (2003), and on post graduate students in South West Nigeria for Azubuike (2016), their findings consistently agreed that lack of ICT and power outage are constraints to use of electronic resources. In the same vein, Watts and Ibegbulam (2006) surveyed some of the barriers to the use of electronic information resources available at the Medical Library of College of Medicine, University of Nigeria, Nsukka. Their findings exposed that lack of an adequate ICT infrastructure and affordable online access, absence of in-depth ICT skills and information searching skills among Library staff, and cost of using the cybercafé are barriers to the use of electronic resources. Similar challenges were reported by Lamptey and Corletey (2011) in Ghana and Manda (2005) in Tanzania. These evidences suggest that limited Library resources such as equipment militate against effective use of e-resources.

In Ghana, Kwadzo (2015) in her study on “Awareness and Usage of E-databases by Geography and Resource Development Information Studies Graduate Students in the University of Ghana”, that concluded the students were aware of the availability of subscribed databases. However, awareness level was generally greater than usage. This suggest that awareness may be only a necessary condition but not sufficient for use of Library resources. Similar studies in Ghana are however, limited, thus bringing to the fore the need to study the extent of lecturers awareness of e-resources and their utilisation in the University for Development Studies this be Library, Wa Campus.

The numerous resent studies that have been carried out on electronic resources are in the areas of awareness (e.g El-Berry, 2015; Akpojotor, 2016; Azubuike, 2016) and usage (e.g El-Berry,

2015; Amusa and Atinmo, 2016; Saikia and Gohain, 2013; Tripathi *et al.*, 2016). It is found in the literature that there are sometimes a breach between awareness and usage of electronic resources. Either users are aware of the e-resources and use them, users are aware and do not use them or users are unaware of them and therefore do not use them. However, the fact that the empirical evidence has not been drawn from the University for Development Studies justified the conduct of this study.

### **3.0 Objectives of the Study**

The main objective of the study was an attempt to seek the views of lecturers of the University for Development Studies, Wa Campus of their awareness and use of electronic resources available in the campus Library. The study was designed and conducted to achieve the following specific objectives:

1. To determine out the frequency at which lecturers visit the Library;
2. To determine the purpose of the lecturers visit to the Library;
3. To determine the lecturers' awareness level and sources of awareness of e-resources in the Library;
4. To identify the factors influencing lecturers' use of e-resources in the Library; and
5. To identify the challenges associated with the lecturers' use of e-resources in the Library.

### **4.0 The study Area**

The study was conducted at the Wa Campus of the University for Development Studies in the Upper West Region of Ghana. University for Development Studies was established by the Provisional Defense Council (PNDC) Law 279 of 1992. The University was mandated to serve

the needs of the four northern regions namely: Brong Ahafo, Northern, Upper East and Upper West Regions. In September 1993, the first batch of 39 students was admitted to the Faculty of Agriculture. The University now has four campuses in the three Northern regions of Ghana namely: Tamale, Nyankpala, Navrongo and Wa respectively. For the purpose of this work, the concentration will be on Wa Campus Library.

The Wa Campus of the University for Development Studies was established on 14th September 2002 with a single faculty called the Faculty for Integrated Development Studies with very few students and lecturers. This however grew to have their additional faculties: Faculty of Planning and Land Management (FPLM), School of Business and Law (SBL) and part of Faculty of Education. The Wa Campus has two libraries, one at old campus located at Wa Sombo and the other at the new campus located at Bamahu.

The Campus Library serves 12000 students and 160 lecturers and hence plays a very important role in the delivery of information to the University community. It provides a wide range of reading materials including the subscription of electronic resources through the Consortium of Academic and Research Libraries in Ghana (CARLIGH). The subscribed e-resources are available for use by both lecturers and students. There is an electronic support staff that is well trained and always available and ready to help users who have difficulties in accessing the information as well as those who have very little knowledge about computers.

## **5.0 Methodology**

The purpose of the study was to seek the views of lecturers on their awareness and use of electronic resources and their effective use of them at the Wa Campus Library of the University for Development Studies in the upper west region. The study adopted a quantitative approach

through the use of a survey design. The population of lecturers at the three faculties is 160 which has a break down as follows: FIDS 79 Lecturers, FPLM 46 Lecturers, and SBL 34 Lecturers (UDS Basic Statistics, 2016). Making use of the 95% confidence level and a 5% confidence interval, the total sample size of 80 was considered representative of the population. Through the use of the simple random sampling method a total of 80 copies of a questionnaire were self-administered to lecturers on the two campuses of the old campus Sombo and the new campus Bamahu. The questionnaire was divided into sections consisting of different variables. The main sections contained lecturers/respondents background information, frequency of Library visits and the kind of information sought for, awareness and of electronic resources, and the challenges associated with the use of the Library resources.

All the 80 copies of the questionnaire were completed and returned representing a response rate of 100%. The data were coded and entered into the SPSS spread sheet for further transformation. Data on the use of Library, frequency on Library visit, purpose of Library visit, awareness of e-resources in the Library, use of e-resources and frequency of use were analysed using descriptive statistics. Besides, the factors influencing respondents' use of electronic resources in the Library were identified and analysed using a regression framework.

A binary regression model was used to identify the factors influencing the probability of lecturers' decision to use the available e-resources in the Library. Gujarati (2004) indicates that the logistic regression is often used to model binary choice responses. In this study, the dependent variable of interest is use of e-resource in the Library which assumes a value of 1 if an  $i$ th respondent has ever used the e-resource and 0 if otherwise. The cumulative logistic distribution function is specified as:

$$P_i = \frac{1}{1+e^{-Z_i}} = \frac{e^{Z_i}}{1+e^{Z_i}} \quad (1)$$

Where:  $P_i$  = the probability of an individual lecturer to use or not to use e-resource in the Library.

$$Z_i = \beta_0 + \beta_i X_i \quad (2)$$

Where:  $X_i$  = Vector of explanatory variables

$\beta_0$  = Vector of constant term

$\beta_i$  = Vector of logistic regression coefficient

As  $Z$  ranges from  $-\infty$  to  $\infty$ ,  $P_i$  ranges from 0 to 1. The probability of non-use is  $1 - P_i$ .

The relative effect of each explanatory variable on the likelihood that a lecturer will use e-resource of the Library is given by the marginal effect as:

$$\frac{\partial(P_i)}{\partial(X_i)} = \beta_i [\bar{P}(1 - \bar{P})] \quad (3)$$

Where  $\bar{P}$  is the mean of the dependent variable. The empirical estimation of the model for use and non-use of e-resource in the Library is specified as:

$$\begin{aligned} \ln\left(\frac{P_i}{1 - P_i}\right) = & \beta_0 + \beta_1 EXP + \beta_2 INFO\_BKS + \beta_3 INFO\_JRNAL + \beta_4 AW\_FRND \\ & + \beta_5 AW\_UDS\_MAIL + \beta_6 AW\_MEMO + \beta_7 AW\_WRKSHP + \beta_8 AW\_WEBSITE \\ & + \beta_9 AW\_PERSONAL + \beta_{10} AW\_LABRARY \end{aligned}$$

**Table 1: Variable labeling, measurement and expected signs**

Variable Name	Label	Measurement	Expected Sign
EXP	Experience	Years of teaching	+

INFO_BKS	Aware through searching for books	1 = yes; 0 = otherwise	+
INFO_JRNAL	Aware through searching for journals	1 = yes; 0 = otherwise	+
AW_FRND	Aware through friends	1 = yes; 0 = otherwise	+
AW_UDS_MAIL	Aware through UDS mailing	1 = yes; 0 = otherwise	+
AW_MEMO	Aware through internal memo	1 = yes; 0 = otherwise	+
AW_WRKSHP	Aware through workshops	1 = yes; 0 = otherwise	+
AW_WEBSITE	Aware through UDS website	1 = yes; 0 = otherwise	+
AW_PERSONAL	Aware through librarian	1 = yes; 0 = otherwise	+
AW_LABRARY	Aware through Library visit	1 = yes; 0 = otherwise	+

Source: Authors Construction (2017)

The variables in the empirical model relate to experience respondents experience in teaching and use of Library resources. Others also include variables relating to awareness creation about e-resources in the Library. The objective was to examine the influence of these variables on the use of e-resources in the UDS Library. The statistical software used in the estimation of the regression model was STATA version 12.

## 6.0 Results and Discussion

The results of the study were obtained through analysis of data gathered from 80 respondents who are all lecturers in the University for Development Studies, Wa campus. The results are presented in themes according to the research objectives.

### 6.1 Use and Frequency of Use of the Library

The results of the study revealed that out of the 80 respondents selected for investigation, 71 of them representing 88.8% were users of the UDS Library while 9 respondents who constitute 11.2% of the sample were not users of the Library. The distribution is shown in Table 2. Further analysis from the table shows the frequency of Library usage among the respondents. The



evidence thus points out that 51 respondents denoting 63.2% used the Library once a while. Thirteen (13) respondents representing 16.2% also use the Library weekly. It was also discovered that respondents who use the Library daily or monthly in both cases were 3 representing 3.8% respectively. Also, 9 respondents never use the Library while only one (1) respondent use it twice a week, representing 11.3% and 1.3% respectively.

**Table 2: Use and frequency of Library use**

<b>Users of UDS Library</b>	<b>Frequency</b>	<b>Percent</b>
Never used the Library	9	11.2
Ever used the Library	71	88.8
<b>Total</b>	<b>80</b>	<b>100</b>
<b>Frequency of Library use</b>	<b>Frequency</b>	<b>Percent</b>
Never used the Library	9	11.2
Daily	3	3.8
Twice a week	1	1.3
Weekly	13	16.2
Monthly	3	3.8
Once a while	51	63.7
<b>Total</b>	<b>80</b>	<b>100</b>

Source: Field Survey (2017)

The results show that majority (88.8%) of the respondents are users of the Library. However, the frequency of Library visit suggests that most of the respondents do not use the Library regularly. In fact only 21.3% of them reported using the Library daily, weekly or twice a week.

## 6.2 Purpose of Library visit

The results of the survey revealed that respondents visit the Library for different purposes; including: searching for books, searching for journals, and searching for newspapers for use. As shown in Table 3, about 61 respondents representing 76.3% indicated that they visit the Library to search for books for use while 17 respondents denoting 21.3% visit the Library in search for journals for use. Another purpose such as searching for newspapers for use was indicated by 9 respondents representing 11.3%.

**Table 3: Purpose of Library visit**

<b>Purpose of visit to Library</b>	<b>Yes</b>	<b>No</b>	<b>Total</b>
Search for books in Library for use	61(76.3)	19(23.8)	80(100)
Search for journals from Library for use	17(21.3)	63(78.8)	80(100)
Search for newspapers from Library for use	9(11.3)	71(88.8)	80(100)

Source: Field Survey (2017) \*multiple responses were provided

The results on the purpose of Library visit suggest that most (76.3%) of the respondents go to the Library to search for books. The next common purpose for Library visit is searching journals. Besides, only few lecturers do go to the Library in search for newspapers.

### **6.3 Aware of electronic resources in the Library**

The results of the study revealed that majority of the respondents (52) representing 65% of the sample were aware of electronic resources in the Library. However, 28 respondents who constitute 35% indicated that they were not aware of electronic resources in the Library. The awareness level of electronic resources in UDS Library is lower compared with the 100% awareness as observed by Chirra and Madhusudhan (2009) in the Goa University, India. However, this is comparable to the 67.14% awareness as reported by Thanuskodi and Ravi, (2011) in their study of Manonmaniam Sundaranar University.

#### **Sources of awareness of electronic resources in the Library**

Further analysis of the survey data revealed the sources of awareness of e-resources in the Library. The service of the UDS Library has a mailing system. The mailing system provides username and password for each lecturer to enable them access the electronic resources. Besides, information on electronic resources is kept in the system and can be accessed by individuals that login the system. From Table 4, 28 respondents representing 35% indicated that their awareness of the availability of e-resources in the Library was through the UDS mailing system. It was also discovered that 19 representing 23.8% said they had their information through internal memo from the Librarian. Through personal interaction with Librarians, 18 respondents representing 22.5% were able to get information about electronic resources of the Library. Besides, 15 respondents denoting 18.8% said it was through friends they became aware of electronic resources in the Library and 12 respondents constituting 15% of the study were aware through the Library. The category of people who became aware through the Library means that they discovered the resources themselves without any personal communication with the Librarian. Also, 11 respondents representing 13.8% point out that, is through e-resources sensitization

workshop they were informed about electronic resource of the UDS Library. Findings from the study also revealed that 9 respondents representing 11.3% were aware of electronic resources of the UDS Library through the university website while only 4 respondents amounting to 5% were also aware through Faculty Board meeting. Meanwhile, the remaining 2 respondents who form 2.5% of the sample population indicated that they were aware of electronic resources of the Library through issuance of posters and brochures.

**Table 4: Sources of awareness of electronic resources of the UDS Library**

<b>Source of awareness</b>	<b>Yes</b>	<b>No</b>	<b>Total</b>
Friend	15(18.8)	65(81.3)	80(100)
UDS mailing system	28(35)	52(65)	80(100)
Internal memo	19(23.8)	61(76.3)	80(100)
E-resources sensitization workshop	11(13.8)	69(86.3)	80(100)
Issuance of Posters and brochures	2(2.5)	78(97.5)	80(100)
UDS website	9(11.3)	71(88.8)	80(100)
Faculty board meetings	4(5)	76(95)	80(100)
Personal interaction with Librarian	18(22.5)	62(77.5)	80(100)
Use of Library	12(15)	68(85)	80(100)

Source: Field Survey (2017)

\*multiple responses were provided

The findings in Table 4 imply that respondents became aware of the availability of electronic resources of the Library through different mediums. The common once include communication with friends, use of internal memo, and personal interaction with the librarian. The results also

imply that the use of a combination of mediums of communication may increase awareness among users.

### **Use of electronic resources of the Library**

Investigations into the usage of electronic resources of the Library shows that, 54 respondents representing 67.5% did not use electronic resources of the Library while 26 respondents representing 32.5% indicated that they have been using electronic resources in the Library. The distribution is shown in Table 5.

**Table 5: Use and frequency of electronic resources use in the Library**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Never used	54	67.5
Ever used	26	32.5
<b>Total</b>	<b>80</b>	<b>100</b>

  

<b>Frequency</b>	<b>Frequency</b>	<b>Percent</b>
Weekly	2	7.7
Twice a week	4	15.4
Monthly	11	42.3
Once a while	9	34.6
<b>Total</b>	<b>26</b>	<b>100</b>

Source: Field Survey (2017)

Further analysis from Table 5, revealed the frequency of e-resource utilisation in the Library. It was found out that only 2 respondents representing 7.7% use e-resources of the Library every week while 4 respondents representing 15.4% of the sample use it twice every week. It was also discovered that 11 respondents representing 42.3% use the e-resources of the once in every month while 9 respondents representing 34.6% use the facilities once a while. The categories of users that use it once a while are not regular users of the e-resources in the Library facility.

The foregoing discussion implies that many of the lecturers are aware of the e-resources facilities in the Library. However, some (67.5%) of them are still not users of the e-resource facilities. This suggests that some factors may be influencing use of the e-resources in the UDS Library.

#### **6.4 Factors influencing use of electronic resources in the Library**

Logistic regression was run to identify determinants of the use of e-resources of the UDS Library. The decision to use or not to use was regressed on EXP (Experience), INFO\_BKS (Aware through searching for books), INFO\_JRNAL (Aware through searching for journals), AW\_FRND (Aware through friends), AW\_UDS\_MAIL (Aware through UDS mailing), AW\_MEMO (Aware through internal memo), AW\_WRKSHP (Aware through workshops), AW\_WEBSITE (Aware through UDS website), AW\_PERSONAL (Aware through personal interaction with Librarian) and AW\_LABRARY (Aware through Library visit).

The regression results presented in Table 6 shows a Likelihood Ratio Statistic of  $\chi^2(10) = 31.24$  which is significant at less than 1%. This indicates that the decision to use the e-resources or not is jointly explained by the explanatory variables. Five (5) out of the 10 covariates were observed to have a significant influence on the probability of use of the resource. They include

INFO\_BKS, INFO\_JRNAL, AW\_UDS\_MAIL, AW\_PERSONAL and AW\_LABRARY. All the significant variables are in conformity with the *a priori* expectation.

**Table 6: Logistics regression estimates of factors influencing e-resource use of the Library**

Variable	Coefficient	Std. Error	p</z/	[95% conf. Interval]		Marginal effect
EXP	0.041 (0.109)	0.38	0.705	-0.173	0.256	0.006
INFO_BKS**	3.083 (1.317)	2.34	0.019	0.502	5.663	0.266
INFO_JRNAL***	2.993 (1.130)	2.65	0.008	0.779	5.208	0.608
AW_FRND	-1.904 (1.689)	-1.13	0.260	-5.215	1.407	-0.168
AW_UDS_MAIL**	1.816 (0.765)	2.37	0.018	0.316	3.317	0.318
AW_MEMO	1.304 (0.877)	1.49	0.137	-0.414	3.023	0.224
AW_WRKSHP	- 0.035 (1.557)	-0.02	0.982	-3.087	3.016	-0.005
AW_WEBSITE	-3.597 (2.316)	-1.55	0.120	-8.136	0.943	-0.206
AW_PERSONAL**	3.765 (1.735)	2.17	0.030	0.365	7.165	0.723
AW_LABRARY**	2.173 (1.045)	2.08	0.038	0.126	4.221	0.446
_cons	-5.771 (1.757)	-3.23	0.001	-9.274	-2.268	

Number of observation = 80; LR Chi-Square (10) = 31.24, prob> Chi-Square = 0.0005, pseudo  $R^2 = 0.3392$ , log likelihood = -30.430798

\*\*\*, \*\* represent significance at 0.01, and 0.05 level respectively. Figures in parentheses are z values

From the regression model in Table 6, the coefficient of INFO\_BKS was found to be positive and significant at 5%. This means that lecturers who often visit the Library in search of book are more likely to use e-resources of the Library. The marginal effect of this variable was estimated

at 0.226. This means that a lecturer who visits the Library to search for books has 26.6% likelihood of using the e-resources than those who visit it for other purposes. The possible explanation could be that some specific books may be needed that are not available in printed form in the Library. Such users may try other means such as accessing the e-resources.

The results also indicate that, the coefficient of INFO\_JRNAL is positive and significant at 1%. Its marginal effect was also estimated at 0.608. This means that lecturers who visit the Library to search for journals were found to be users of the e-resources. The marginal effect of 0.608 implies that a lecturer who often visits the Library for the purpose of searching for journals has 60.8% probability of using the e-resources of the Library as compared to those who go there for other purposes.

Besides, the coefficient of AW\_UDS\_MAIL was observed to be positive and significant at 5% with a marginal effect of 0.318. The explanation is that awareness of the availability of the e-resources in the Library through the UDS mailing system has a significant positive influence on utilisation of the resources. Lecturers who became aware of the resources through the mailing system have more likelihood of using the e-resources. The likelihood of using the resources by these categories of users is 31.8% more than those who are not aware through the mailing system. The use of the mailing system may contain extra information on the procedures of use of the resources. The possible explanation to this observation could be that recipients of such mails will therefore, want to try to use the system using instructions in the mails and hence end up becoming users of the facilities.

Furthermore, the coefficient of AW\_PERSONAL was found to have a significant positive influence on the probability of using the e-resources of the Library at 5% significance level. The



implication of this finding is that lecturers who became aware of the availability of the e-resources in the Library through personal interaction with the Librarian have higher probability of using the facilities. The likelihood of use is 72.3% higher than those who do not have personal interaction with the Librarian on the use of the e-resources. This finding was expected since the Librarian will be able to offer detailed explanation as well as address the challenges associated with the use of the facility. Other lecturers who do not meet the Librarian to interact on the use of the facility may become discouraged upon encountering challenges or develop a negative perception on the effectiveness of the system and hence become a non-user. This finding agrees with the results of Saikia and Gohain (2013) that user guidance in the Library facilitates utilisation of Library resources.

Finally, some of the lecturers rely on frequent visit to the Library to search information and check on new developments of the Library. Such people may become aware of the availability of e-resources through their personal search. It was revealed not such lecturers who search for the e-resources in the Library themselves were found to be users of the facilities. The coefficient of `AW_LABRARY` was found to be positive and significant at 5%. Its marginal effect was also estimated at 0.446. This means that being able to visit the Library and search for e-resources is associated with 44.6% likelihood of using the facility than those not searching for them.

Generally, different factors may be influencing use of e-resources in the Library. However, the results from the regression model imply that the purpose of Library visit and sources of information on the availability of e-resources in the UDS Library are the major factors influencing utilisation of the e-resources facilities in the Library.

Besides, as users may encounter challenges during utilisation, non-users may be limited by the challenges to be successful in their attempt to use the facilities. Several challenges may therefore, face both users and potential users of the e-resources of the Library.

### **6.5 Challenges associated with the use of electronic resources in the Library**

Some factors were identified as challenges associated with the use of e-resources in the Library. From the results, 42 respondents representing 52.5% of the sample population indicated that they always have problems with the password. Low internet speed as a challenge has been encountered by 31 respondents representing 38.8% of the study. Other challenges such as inadequate staff in the Library and lack of assistance from the librarians were mentioned by 10 respondents each representing 12.5% as shown in the Table 7. About 9 respondents denoting 11.3% said inadequate computers in the Library is a barrier to their effective usage of the Library. Five (5) representing 6.3% indicated that there is no or low bandwidth while the remaining 2 respondents amounting to 2.5% maintain that the attitude of staff in the Library is a challenge, as shown in the Table 7.

**Table 7: Challenges associated with the use of UDS Library**

<b>Nature</b>	<b>Frequency</b>	<b>Percent</b>
Low internet speed	31	38.8
No/low bandwidth	5	6.3
Inadequate computers in the Library	9	11.3
Inadequate staff in the Library	10	12.5
Library staff attitude	2	2.5
Password problem	42	52.5
Lack assistance from the librarians	10	12.5

Source: Field Survey (2017)

\*multiple responses were provided

The challenges that confront the lecturers in the use of the Library are mixed. They cut across different areas including those that are associated with Library infrastructure, personnel, and technology. The effect of these challenges is manifested in low or non-utilisation of e-resources in the Library.

## **7.0 Conclusion and Recommendations**

Academic libraries are important to institutions as they acquire, process, preserve and disseminating knowledge to facilitate teaching, learning research in higher. As a result, all higher educational institutions have established libraries with many now adopting the use of Information Technology to enhance access to large stock of information materials. The University for Development Studies has also established libraries in the different Campuses with e-resources as a major component of its information resources.

Many lecturers of Wa Campus of UDS are aware of the availability of the e-resources facilities in the Library but utilisation is low. Different mediums such as emails and faculty board meetings were used to create user awareness of the availability of the Library resources. Among users of the Library, frequency of Library visit was also not effective despite the various mediums used in the awareness creation.

The findings of the study also imply that factors relating to purpose of Library visit and sources of awareness of e-resources of the Library significantly influence the likelihood of e-resource utilisation among lecturers. Besides, challenges associated with information technology infrastructure and human resources limit the extent and intensity of Library resources utilisation.

The study therefore, recommends that efforts to increase use of e-resources in the Library should concentrate on the selection of appropriate medium of information dissemination about the

resource facility of the Library. In the process, specific attention should be paid to the use of UDS mailing system and personal interaction among librarians and lecturers. Lecturers are also advised to increase the frequency of visit to the Library to be able to discover more potentials of the Library to facilitate the use of the resources.

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