

# Awareness and Impact of Electronic Journals Usage by Faculty

## Members and Lectures in Kumasi Polytechnic, Ghana

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### Abstract

This study presents the results of a survey on the use of electronic journals (e-journals) subscribed through the Consortium of Academic and Research Libraries In Ghana (CARLGH) among lecturers and faculty members in Kumasi Polytechnic in Ghana. A questionnaire was designed to gather information on the level of awareness, usage, impact and challenges encountered by users of e-journals and the way forward. Questionnaires were distributed to lecturers and faculty members at a training workshop. Data gathered were analyzed and presented in statistical data in the form of tables, graphs and charts.

**KEYWORDS:** E-journals, E-journals use, Kumasi Polytechnic, Electronic Resources.

### Introduction

This article presents the results of a study on the awareness and impact of electronic journals (E-journals) usage by the academic staff and some faculty of Kumasi Polytechnic, Kumasi, Ghana.

The Polytechnic receives over twenty databases comprising over three thousand E-journals subscribed through the Consortium of Academic and Research Libraries in Ghana (CALIGH). These resources can be accessed by the users of the Polytechnic community through its local area network. Taking into consideration the numerous advantages of the online journals and in order to overcome the budget factors, most academic libraries are either getting themselves into the consortia for the subscription of the electronic resources or they are individually going for the databases where they can have access to e-journals at affordable price. Through this the librarians have overcome the budget and the storage problems of print journals.

### Objectives

The main purpose of the study was to ascertain the extent at which e-journals usage has been beneficial to users. This study is expected to be helpful to library staff and the Polytechnic authorities to decide whether to invest more on the development of electronic collection or to go for an alternative format of journals. To achieve this purpose, the study was guided by the following objectives:

1. To ascertain the level of awareness of the availability of E-journals in the polytechnic library.
2. To access user patronage of E-journals in the library.
3. To find out the purposes for which users access E-journals
4. To find out challenges encountered by users and the way forward.

Finally, this work was to set a benchmark for further studies on the usage of electronic data services by Ghanaian Polytechnics.

### Profile of Polytechnic Library

The Kumasi Polytechnic began in 1954 as the Kumasi Technical Institute to provide craft courses. In 1963 the institute was converted to a non-tertiary polytechnic status under the Ghana Education Service, and started offering technician, diploma and sub-professional courses alongside the craft courses that were being run. During the latter part of 1963 the Library was moved into two large classrooms on the second floor of Block B now Department of Secretaryship and Management Studies in preparation towards the Polytechnic's upgrading to tertiary status. It was from this era that the library witnessed major and significant developments. The library moved into two bigger halls in 1994 when the World Bank facility for students was completed. The primary function of the library is to provide resources, facilities and services needed for study, teaching and research in the polytechnic.

The library is one of the richest Polytechnic libraries in Ghana in terms of collection, trained personnel, development and services rendered to its users. The library is automated and is organized by the KOHA software which provides access to its collection through its online catalogue. It has a total stock of over 25,000 volumes and subscribes to a number of core print academic journals. The library is a member of the Consortium of Academic and Research Libraries in Ghana (CARLIGH) and has access to a number of electronic journals and databases such as EBSCOHOST, EMERALD, JSTOR, SAGE JOURNALS ONLINE, and TAYLOR AND FRANCIS among others. It has also access to online databases like HINARI, AGORA, OARE and ARDI all by the courtesy of Reseach4Life online registration for Developing Countries' Access to World's Leading Journals.

### Literature Review

Recent studies conducted indicate that 'the number of E-journal titles increased modestly during the early 1990s with most e-journals being the results of voluntary efforts and made free- of charge' (Keefer 2001). Furthermore, most of the very first e-journals appeared between 1994 and 95 (Bansode, 2013). The first e-journal to be distributed was Electronics Letters online by IEEE (Institution of Electrical Engineers) (Pettenati, 2001).

The first studies carried out during the 1990s made it clear that electronic journals were here to stay (Ollé and Borrego 2010). Tenopir (2003) analyzed the results of over 200 studies of the use of electronic resources in libraries published between 1995 and 2003 and concluded that, electronic resources had been rapidly adopted in academic spheres, though scholars' behavior tended to vary according to discipline. Research conducted by Vaughan (2003) at the Duke University chemistry library, showed that between 1999 and 2001 the use of print journals by academic researchers was very low as compared to electronic journals. More so, journals that were available only in print were used less—indicating that format is a key element when deciding on access to information. In another development, Chrzastowski, (2003) opined that, in 2002, print journals represented only 6% of all uses at the University of Illinois Library at Urbana-Champaign. Again studies conducted by Nicholas and Huntington (2006) indicate that many people are accessing scholarly journals, as very high proportion of journal articles are now available online as a result of their digital migration.

The aforementioned are clear indications of the rapid transition from print to electronic journals.

A survey conducted by Faizul and Naushad Ali (2013), revealed that most of the users are aware of e-journals and they are not only using them for building and updating their knowledge but also for collecting relevant material for their study and research purposes as information can be acquired expeditiously through e-journals. Similarly, empirical studies carried out by Rowlands (2007), Nicholas et al., (2008), Jamali, Nicholas and Huntington (2005), Davis (2004), Eason, Yu, and Harker (2000) showed that electronic journals have significant impact on researchers and scholars. Further by research Bakar and Araffin (2013) revealed electronic journals are widely used by lecturers and researchers in a public university in Malaysia. Voorbij and Ongering (2006) opined that researchers prefer searching to browsing in order to track down relevant articles.

The massive popularity of electronic journals amongst scholars and researchers in academia can no doubt be attributed to perceived advantages and preferences in its usage. The following research studies conducted by Palmer and Sandler (2003), Hiller (2002), Liew, Foo, and Chennupati (2000), Sathe, Grady and Giuse (2002), Nicolaides (2001), Tenner and Yang (1999) and Bishop (1999) have found that users believe the main advantages of electronic journals are;

- the currency of information,
- the speed of access,
- the possibility of downloading or printing the desired document or segment
- the ability to send articles to their colleagues instantly and storing articles electronically,
- convenience of accessing articles any time from their desktop computer
- ease of skimming and searching, and
- allow remote access.

The advantages of the e-journals have been summarized by Lancaster (1995) as rapid publishing, efficient dissemination, and innovative presentation of research results, public peer review, and low publishing cost. In spite of aforementioned wide spread use coupled with the indispensable nature of electronic journals among users, Hahn et.al (1999),revealed in their studies that, high rate of plagiarism coupled with unauthorized distribution of copyrighted publications, possibility of online journal not being refereed among others are the disadvantages of e-journals. Furthermore, Heting (2000) enumerated the following disadvantages as ranking high in his research in e-journals; great expense particularly in the beginning, the need for special equipment you

acquire to access these online resources , require promotion and training, cause more concern about copyright, more difficult to browse than paper journals, concerns about archiving, require complex licensing agreements among others. Studies conducted by Naushad Ali & Faizul (2011), Gupta (2011), and Bar-Ilan, J., Peritz, B.C., and Wolman, Y. (2003) have shown that access to electronic journals is has some challenges afore mentioned.

### Methodology

Based on the nature (case study) and the purpose of the study, the survey method was adopted. Structured questionnaire was developed and used. Questionnaires were distributed to lecturers and faculty members at a training workshop on effective use of e-journals. Out of 250 targeted population, simple random sampling technique was used to select seventy two 200 respondents representing thirty 80 percent of the entire population. Analysis was conducted using SPSS and output was translated into charts, graphs, frequencies and percentages.

### Analysis and Discussion of Data

Table 1.0 Educational Status of Respondents

Variable	Frequency	Percentage	Total
<b>Qualification</b>			200
HND	3	1.5	
MA/MED	55	27.5	
MPHIL/MSC	67	33.5	
PHD	75	37.5	

Source; Field work., November 2014

In table 1 above is a frequency distribution on educational status of respondents. There was statistical evidence that the majority of the respondents (thus lecturers) were holding MPHIL/MSC and PHD constituting about 33.5% and 37.5% respectively of the total response rate, also 1.5% and 27.5% of the respondents were HND and MA/MED respectively.

Table 2. Faculties of the Respondents

Variable	Frequency	Percentage	Total
<b>Faculty</b>			200
Business and management studies	71	35.5	
Applied Science	28	14	
Natural and Building	10	5	
Pharmaceutical	10	5	
Creative Art	35	17.5	
Liberal Studies	9	4.5	
Entrepreneurship and Finance	9	4.5	
Engineering	28	14	

Source; Field work. November, 2014

In table 2 above is a frequency distribution on Faculties of the respondent. Also among the respondents about 35.5%, 17.5%, 14.0% and 14.0% were from the Faculty of Business and Management Studies, Faculty of Creative Art, Faculty of Applied Science and Faculty of Engineering respectively. In addition, 5.0%, 5.0%, 4.5% and 4.5% of the respondents were from faculty of Pharmaceutical, faculty of Natural and Building, faculty of Liberal Studies and faculty of Entrepreneurship and Finance respectively.

**Table 3. Awareness of the Institution Subscribed E-Journals**

Variable	Frequency	Percentage	Total
<b>Awareness of the Institution Subscribed E-Journals</b>			<b>200</b>
I am aware and I am a user	70	35.0	
I am aware but not Interested	21	10.5	
I am aware, but do not know how to use the service	57	28.5	
I am not aware	52	26.0	

Source; Field work. November, 2014

From the table 3, above, is a frequency distribution on the awareness of e-journals by respondents. It was revealed that about 35.0% of the respondents were aware and users of the E -Journals. Moreover, about 28.5% of the respondents were aware of the E-Journals but not users, also only 26.0% of the respondents were not even aware of the E-Journals and 10.5% of the respondents were aware of the E-Journals but not interested

**Table 4. Frequency of Usage**

Variable	Frequency	Percentage	Total
<b>Frequent Usage of the E- Journal</b>			<b>200</b>
2-3 Times a Week	95	47.5	
Once a Week	55	27.5	
Once a Month	30	15.0	
Not at all	20	10.0	

Source; Field work. November, 2014

Table 4, is a frequency distribution on frequent use of E- Journal. It was shown that majority of the respondents use the E-Journals, 2-3 Times a Week. This constitutes about 47.5% of the total response rate. Meanwhile, about 27.5% and 15.0% of the respondents use of the E- Journals once a week and once a month respectively. Finally, only 10.0% d not use of the E- Journals at all.

**Table 5. Access to E-Journals**

Variable	Frequency	Percentage	Total
<b>Access to E-Journals</b>			<b>200</b>
Library	20	10.00	
Department/Laboratory	50	25.00	
Office	130	65.00	

Source; Field work. November , 2014

Table 5 above is the frequency distribution on access to E-Journals. It was indicative that 65.0% of the respondents get access to E-Journals at their various offices, whiles 25.0% of the respondents get access to the E-Journals at their department/laboratory and 10.0% of the respondents get access to the E-Journals at library.

**Table 6. Format preferred**

Variable	Frequency	Percentage	Total
<b>Format preferred</b>			200
Print	45	22.5	
Electronic	60	30.0	
Both	95	47.5	

Source; Field work. August, 2014

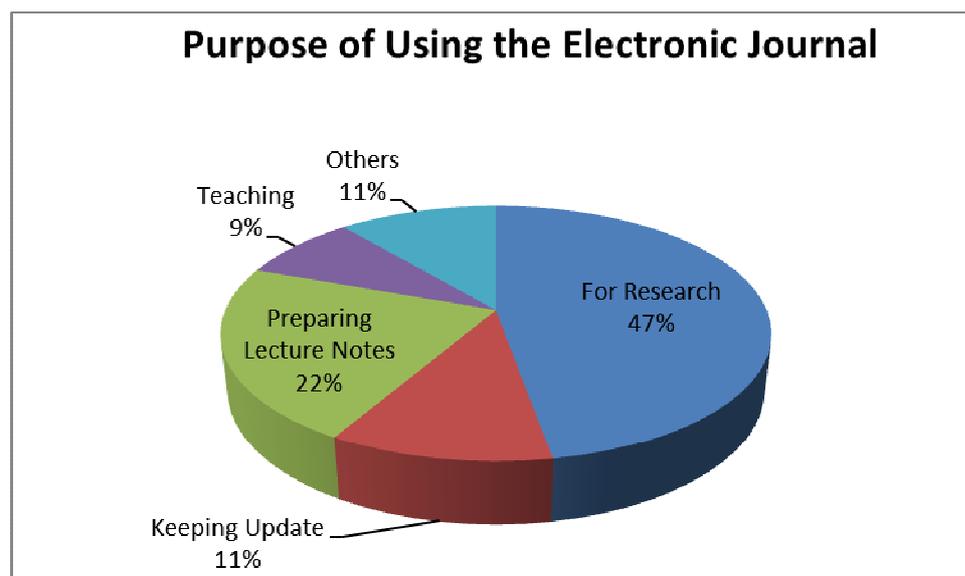
In the table 6 above, it was observed that about 22.5% and 30.0% of the respondents prefer print journals and electronic respectively, meanwhile only 47.5% of the respondents preferred it in both print and electronic for research work.

**Table 7. Problems in Accessing E-Journals**

Variable	Frequency	Percentage	Total
<b>Problems in Accessing E-Journals</b>			200
Slow Internet Connectivity	135	67.5	
Lack Of Proper Search Strategies	26	13.0	
Frequent Power Outages	39	19.5	

Source; Field work. November, 2014

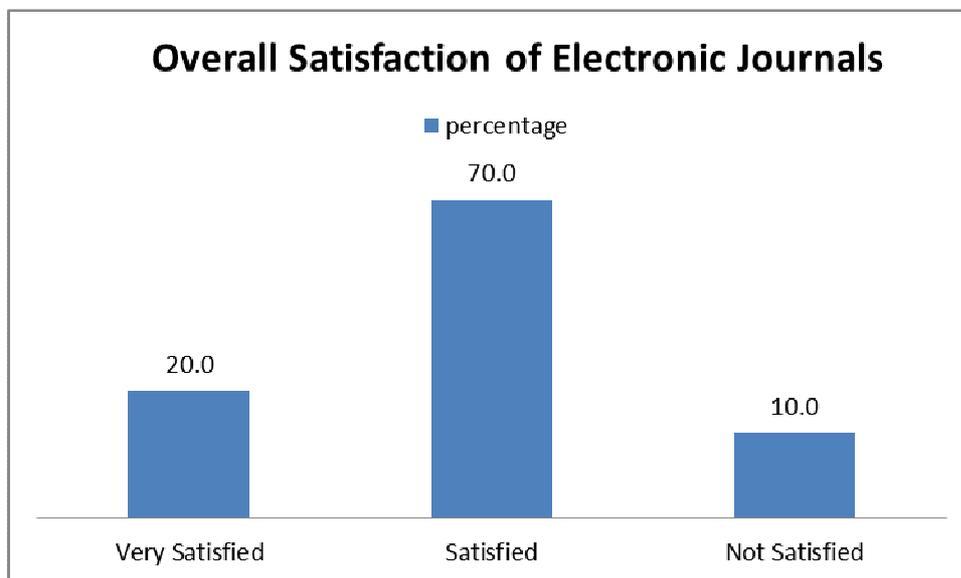
From the responses in table 7, 67.5% of the respondents complain that internet connection is slow, also about 19.4% of the respondents were having problem with the frequent power outages and only 13.0% that lack proper search Strategies was a challenge.



Source; Field Work, November, 2014

Figure 1. Pie Chart on the Purpose of Using the Electronic Journals

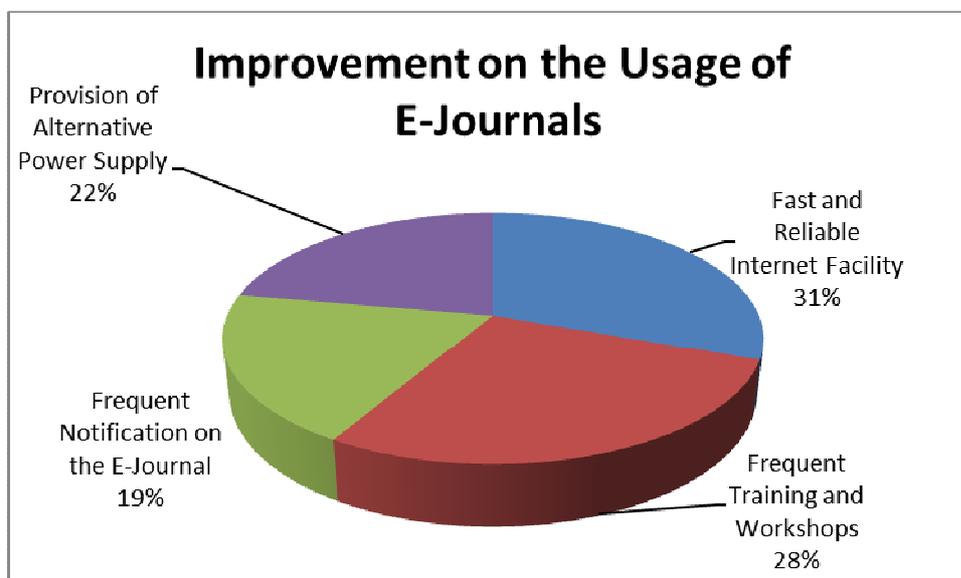
Figure 1 above is a pie chart on the main purpose of using the E-Journals. The figure shows that only 22.2%, 11.1% and 11.1% of the respondents used the E-Journals for preparing lecture notes, keeping update and for other purpose respectively. Finally, there is evidence that about 47.2% of the respondents used the e-journals for research work.



Source; Field Work, November, 2014

Figure 2 Bar Chart on Overall Satisfaction of the usage of Electronic Journals

From figure 2 above, it can be observed that the majority of the respondents (70.0%) were satisfied with the use of the E-Journals, 20.0% Very Satisfied while 10.0% of the respondents were not satisfied with the use of the E-Journals.



Source; Field Work November, 2014

Figure 3 Pie Chart on How to improve on the Usage of the Electronic Journals

In figure 3 above, it was revealed that about 31.0%, 28.0% and 22.0% of the respondents need improvement such as fast and reliable internet connectivity, regular training, workshops and provision of alternative power

supply with the use of E-Journals. Only 19.0% of the respondents showed interest receiving alerts in selected E-Journals of their choice.

### Summary of Findings

The major findings or observations from the analysis are that;

1. Most respondents were aware and users of subscribed e-journals and they access them in their in their various offices, departments and laboratories.)
2. On frequency of usage, it was evidently clear that most respondents do not use the e-journal frequently.
3. Preparation of lecture notes and conducting research were the most preferred purposes for which e-journals are mostly used respectively.
4. Majority of respondents preferred both print and electronic formats.
5. Majority of respondents expressed satisfactory use of E-Journals.
6. The major challenges identified with accessing E-Journals were slow internet connectivity, frequent power outages and lack of proper search strategies respectively.

### Conclusion

From the analysis and findings of the study, it is concluded that, e-journals awareness and impact among users are yielding positive dividends in Kumasi Polytechnic as the institution is having access to e-journals from their respective subject areas even though some are not aware that these e-journals are subscribed by through a consortium (CARLIGH). Generally, user satisfaction was superb but needs to be consolidated by finding solutions to the major challenges highlighted such as frequent power outages, low internet connectivity, and poor search strategies among others.

### Recommendations

Based on suggestions put forward by respondents for improvement on the improvement of e-journal usage coupled with researchers' observations, the following recommendations were made:

- The library authorities should intensify their marketing strategies to make library resources specially e-journals known to users as and when they are available
- Frequent capacity building workshops should be organize for users on how to accesses e-resources effectively
- As a matter of urgency, arrangements should be made by school authorities to provide swift alternative power supply to curtail frequent power outages.
- School authorities should liaise with local telecommunication companies for the provision of fast and reliable internet connectivity.
- Communication gap between the library and academic staff should be bridged for timely flow of information
- The library should ensure that users especially academic staff get access to e-resources outside campus
- School authorities should expand and maintain subscriptions to print journal subscription.

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