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Awareness and Use of Scholarly Electronic Journals by Members of Academic Staff: A Case Study of Dar es Salaam University College of Education (DUCE)

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Abstract

The purpose of this paper is to find out the level of awareness and use of e-journals by members of academic staff of the Dar es Salaam University College of Education (DUCE). A questionnaire was used as the main method for data collection and was supplemented by interview and observation methods.

The findings revealed that the level of use of scholarly electronic journals was low and the use of search engines such as Google was high amongst members of academic staff. It was further revealed that, scholarly electronic journals were mainly used by members of academic staff for research and academic purposes. It is however found that, lack of awareness and limited searching skills were the main factors which were militating against effective use of scholarly electronic journals.

In order to improve and maximize the optimum usage of scholarly electronic journals by members of academic staff, the study recommends the following: the institution should employ proactive marketing strategies such as the use of calendars, newsletters, posters, workshops/training, flyers and brochures, website; conduct training on the use of scholarly electronic journals databases and subscribe to relevant scholarly electronic journals.

Introduction

Since the seventieth century the printed journal has been the backbone of scholarly communication. Nevertheless, with the emergence of internet and World Wide Web in the 1990s, the form of journals has been transformed into digital version that saves physical storage, enhance different searching capabilities and speed both access and delivery of articles to readers. This event marked the paradigm shift in scholarly communication, from printed journals as the principle medium of communication to electronic journals. As a result of potential benefits offered by electronic journals, many academic libraries have embraced electronic journals and cancelled subscription to printed journals (Moyo, 2002; Mutula, 2007 and Thanuskodi, 2011).

Today, the use of electronic journals is becoming important among researchers and academic staff worldwide vis a vis printed journals. For example, in higher education, scholarly electronic journals have become essential tools for learning and research as they provide access to timely, high quality and relevant scientific information to scholars and researchers with a view to keep them abreast with new discoveries and developments. Moreover, members of academic staff use electronic journals to update their lecture notes as well as avoiding duplication of efforts. On the other hand, electronic journals have added enormous resources to the collection and improved services of the library, enhanced access to journal literature and decreased demand for photocopy services as well as document delivery (Madhusudhan and Chirra, 2009 and Madhusudhan, 2010).

However, in recent decades, the majority of researchers and academicians particularly in the developing countries have been deprived of access to the key research literature that is found mainly in expensive journals published in developing countries. This situation is due to reduced library budget which could not cope with the enormous journal subscription cost and inadequate distribution mechanism (Rosenberg and Raseroka, 2000; Rao, 2001; Moahi, 2002; Lwoga et al., 2007).

Nevertheless, enormous progress has been done in the last few years to ensure that scholars and researchers in Africa can access the growing quantities of information now produced in electronic format. Support has been provided in setting up the necessary network infrastructure and providing the requisite hardware and software. Also, negotiation with publishers have resulted in electronic journals and databases being made free or at heavily discounted prices through programmes like Access Global Online Research in Agriculture (AGORA), HINARI Access to Research Initiatives, The Essential Electronic Agriculture Library (TEEAL) and Programme for the Enhancement of Research Information (PERI), Online Access to Research on Environment (OARE) and a lot of training has taken place (Rosenberg, 2006).

Introduction of Electronic Journal in Tanzania

The historical background of the introduction of scholarly electronic journals and databases to scholars in academic institutions in Tanzania is divided into two phases. The first phase took place in the early 1990's when the University of Dar es Salaam (UDSM) introduced the use of CD-ROM facilities to its users. This phase was heralded as the first innovative programme toward the adoption of electronic library resources (Manda, 2005). The second phase took place in the late 1990's and it was mainly facilitated by the advent of the internet and WWW in most academic institutions in Tanzania. The introduction of internet and WWW was a significant leap toward access to full-text electronic journals among researchers and scholars in Tanzania.

In 2001, International Network for the Availability of Scientific Publications (INASP) through its (PERI), which is also a multi-disciplinary initiative, became the first far-reaching attempt to introduce the use of full-text electronic journals and databases in research and academic institutions in Tanzania. This initiative was later complemented by other subject-specific initiatives such as AGORA, OARE, HINARI, and TEEAL (Manda, 2005; Oduwole and Sowele, 2006). These programmes have led to increased access to scholarships among researchers and scholars in Tanzania (Wema, 2002; Lwoga et al., 2007).

The PERI initiative was specifically created to help strengthen research capacity in developing and emerging countries by delivering research and scholarly information, disseminating national research, enhancing ICT skills, and strengthening local publishing (Rosenberg, 2008). This programme is funded by Sida/ SAREC and coordinated by the INASP and the University of Dar es Salaam. Through PERI, online access is provided for full-text electronic journals, databases and back-up support for document delivery. Access has been country-wide for most databases and for others access is limited to some academic and research libraries in Tanzania (Manda, 2005). Today, DUCE as a constituent college of the University of Dar es Salaam continues to enjoy subscriptions to PERI resources under the umbrella of the Consortium of Tanzania Universities and Research Libraries.

Dar es Salaam University College of Education (DUCE)

Dar es Salaam University College of Education (DUCE) was established as a constituent college of the UDSM to address the acute shortage of graduate teachers and experts in the education sector in Tanzania as a result of the expansion of primary education enrolment through the Primary Education Development Programme and the creation of the new secondary schools through the Secondary Education Development Programme. (University of Dar es Salaam Undergraduate Prospectus, 2013/2014). DUCE Library was established to support core activities of the University namely teaching, consultancy, research and learning.

The Library offers diverse information services including scholarly electronic journals to its user community as well as end user training in order to adopt flexible learning.

Today, the community enjoys access to electronic journals from programmes such as PERI, HINARI, and AGORA initiatives. Currently, PERI makes available over 29,300 online journal titles to researchers, academic staff, and students in the higher learning institutions in developing countries including DUCE (Rosenberg, 2008).

The use of online databases at DUCE has been facilitated by establishment of high technological infrastructure. The University uses 11Mbps Wireless link with its Local

Area Network (LAN) spanning three faculties and the university library. Back-up generators are available to ensure continuity of service in case of power outage. Members of academic staff and students can access full-text electronic journals from their offices, the library computer laboratory, faculty computer laboratories, or even from their laptops connected to the internet (LAN) without having to pay for the services (Carnegie Proposal Funding 2008/2009).

Several studies have shown that scholarly electronic journals are becoming increasingly important to scholars and researchers. Nicholas and Huntington (2006) observed that there was a growing reliance on electronic resources by scholars and a high occurrence of non-traditional types of resources. This was supported by Dillon and Hahn (2002) who observed that more members of academic staff at the University of Maryland used electronic journals daily or weekly than they used print journals.

However, in the developing countries and Tanzania in particular, studies show that there was under-utilization of scholarly electronic journals in higher learning institutions (Dule et al., 2004; Kiondo, 2004; Kinengyere, 2007). In their studies, Kiondo (2004); Kinengyere, (2007); Manda (2005); Manda (2005); Manda and Nawe, (2008); Nyika, (2004); Nyika, (2006), and Lwoga et al. (2007) argued that low patronage of scholarly electronic journals in the library was largely attributed to lack of information literacy skills among library users, limited access points, low bandwidth and recurrent power outages. Manda and Mukangara (2007) and Bablhavaeji and Anaraki (2013) observed low usage of scholarly electronic journals and other electronic resources compared with search engines such as Google and Yahoo, which were reported to be frequently consulted.

Asemi and Riyahiniya (2007) concluded that awareness of the existing library electronic resources is crucial in influencing usage of the resources and maintained that when a user is aware of resources it would usually lead to greater use of those resources.

It is against this background that this study attempted to investigate the awareness and use of scholarly electronic journals at the Dar es Salaam University Collage of Education

(DUCE) by members of academic staff. Specifically, the study investigated their level of awareness on the available scholarly electronic journals; to know their level of use of electronic resources and to recommend the way forward.

Literature Review

Many studies have been carried out on awareness and use of electronic journals. In the 1990s when electronic journals were introduced, Majid and Mansoor (1996) in their study of Universities in Malaysia found that a majority of users were not aware of the CD-ROMs services which reflected the degree of effectiveness of the promotion activities in the library.

Baro et al. (2011) studied Delta State University and found that electronic scholarly journal databases were underutilized. Users cited lack of awareness of the existing resources as the primary constraint they had.

Okelo and Magara (2008) supported this notion of underutilization and stated that the common obstacle in the use of electronic journals in higher learning institutions was lack of awareness about the resources.

Vasishta (2013) noted that promotion is the decisive factor in the effective use of sophisticated services such as electronic journals. He argued that, since electronic journals are developing as a new information platform, their promotion requires more than just notification.

Oyedapo and Ojo (2013) in a study on the use of electronic resources in Obafemi Alowowo University observed very low usage of electronic resources. The major reason that contributed to low utilization of electronic resources was limited searching skills. Manda (2005) added additional factors leading to underutilization of electronic resources which included lack of accessibility to computers connected to internet; low internet bandwidth and unreliable power supply.

Manda and Mukangara (2007) in study on gender analysis of electronic resources information resources use observed low usage of electronic scholarly journals databases and that the usage of search engine such as Google was high. Curley (1990) cited in Rahman and Ramzy (2004) and Kiondo (2007) concurred with these findings and maintained that the greater ease of use of the search engine through increased accessibility and availability, the greater the reported use of the resources.

Anaraki and Babalhavaeji (2013) found that the most obstacles to the use of library electronic resources were inadequate information about existence of these databases and lack of training.

Kinengyere (2007) and Majjid and Abazoza (1999) also noted that lack of information literacy training coupled with computer training were directly related to low usage of these resources. Bowden (1994) maintained that users who were trained in information gathering and who had greater computer skills were more likely to utilize these services. Achonna (2008) likewise noted that usage of electronic journals was low and users cited lack of skills to use the resources, power outage and inadequate computers as common obstacles towards usage of electronic resources.

Ajebomogun (2007) posits that, while electronic journals have become essential tools for learning, research, teaching and consultancy, most of scholars and researchers are not fully utilizing them.

Rehman and Ramzy (2004) echoed the same sentiment by stating that although libraries have purchase and install the latest, most technologically advanced computerized information systems and procure expensive resources, these may not be optimally used due to lack of awareness or the lack of ability to use these resources among the users. Therefore, it is imperative for library professionals to ensure that such electronic resources are effectively exploited, through conducting training and employing proactive marketing strategy.

Wisniewski and Fichter (2007), Kinengyere (2007), Vasishta (2013) and Asemi and Riyahiniya (2007) have supported the notion of conducting information literacy training and increasing publicity of scholarly electronic journals to the users.

Research Methodology

The questionnaire-survey based method was used for this study to collect the necessary primary data as is the most common method used in social research and many similar studies conducted earlier have also used this method for data collection. This method is also preferred as it is less time consuming and more economical for a scattered population. In addition to the questionnaire method, interview and observation methods were also used to collect required information to the questionnaire method to bring more clarity to the data, which was essential and was used for analysis and interpretation of the data. The survey was designed to collect basic information about the level of awareness of the existing scholarly electronic journals, level of usage of scholarly electronic journals and the way forward. Data collection was made by directly administering questionnaires to members of academic staff in the faculties. A total of sample of 60 research scholars was chosen from Faculty of Humanities and Social Sciences, Faculty of Science and Faculty of Education and 60 questionnaires randomly distributed in the month of January, 2009. Overall, 47 (78.33%) of the sampled users returned their questionnaire, namely 24 (51.1%) Faculty of Humanities and Social Sciences, 10 (21.3%) Faculty of Education, 9 (19.2%) Faculty of Science (See Table I).

Data Analysis and Interpretation

The data collected by different methods were analysed and interpreted and are presented here in tables and figures.

Demographic Characteristic of Respondent

Data were collected about gender, faculty affiliation and status of the respondents. It was found that 34 (74.5%) respondents were male, while 13 (25.5%) respondents were female. These findings show that most of respondents were male. This was due to the fact

that male respondents constituted a large proportion of members of academic staff in the institution (See table I).

Regarding faculty affiliation, it was found that 24 (51.1%) respondents were from Faculty of Humanities and Social Sciences, 14 (29.8%) respondents were from the Faculty of Education, nine (19.2%) were from the Faculty of Science (See table 2). These findings indicate that the majority of respondents were from the Faculty of Humanity and Social Sciences. This was due to the fact that these respondents constituted a large proportion of faculty members at DUCE as the Faculty offers wide range of courses than other faculties in the institution.

With regard to designation of respondents, it was found that 37 (78.7%), were assistant lecturers, nine (19.1%) were tutorial assistants and one (2.1%) respondent was a lecture (See table III).

Table I. Distribution of Members of Academic Staff by Gender (N=47)

Total N=47	Sample	Gender	Frequency	Percent
		Male	34	74.5
		Female	13	25.5
		Total	47	100

These findings indicate that most respondents were assistant lecturers. This was because the institution currently offers first degrees only and most teaching staff need a masters degree.

Table II. Distribution of Respondents by Faculty (N=47)

Total N=47	Sample	Faculty	Frequency	Percent
		Arts and Social Sciences	24	51.1%
		Science	9	19.2%
		Education	14	29.8%
		Total	47	100

Table III. Status of Respondents (N=47)

Total N=47	Sample	Faculty	Frequency	Percent
		Tutorial Assistant	9	19.1
		Assistant Lecturer	37	78.7
		Lecture	1	2.1
		Total	47	100

Awareness of Scholarly Electronic Journals

In response to the question on the awareness of scholarly electronic journals 30 (63.8%) respondents responded positively while 17 (36.2%) respondents responded negatively (See table IV).

Table IV. Status of Respondents (N=47)

Total N=47	Sample	Awareness	Frequency	Percent
		Aware	30	63.8
		Not Aware	17	36.2
		Total	47	100

Usage of Scholarly Electronic Journals

In response to the question on the use of different electronic scholarly journal databases, 29 (61.7%) respondents responded positively while 18 (38.3%) respondents replied that they did not use electronic journals. These results are shown in table V.

Table V. Status of Respondents (N=47)

Total N=47	Sample	Usage	Frequency	Percent
		Use	29	61.7
		Not Use	18	38.3
		Total	47	100

Reasons for Non Use of Scholarly Electronic Journal

Respondents who did not use scholarly electronic journal databases were asked to give reasons for their non-use. The reasons given were lack of awareness by 13 (72.2%) respondents and inadequate search skills by five (27.8%) respondents. These findings are presented in table VI. From these findings, it is clear that the level of utilization of scholarly electronic journals at DUCE is low, and that the major reasons for this state of affair are lack of awareness and inadequate search skills.

The researcher through observation and the interview with the director of library services found that the use of weak marketing tools and an inadequate rigorous information literacy programme had contributed to non-use of scholarly electronic journals at DUCE. These results are corroborated by research findings of Kiondo and Nawe (2005); Riyahiniya and Asemi (2007); Manda (2005), Kinengyere (2007) and Bablhavaeji and Anaraki (2013) who argued that lack of searching skills and awareness of a wide range of electronic resources available contributed to low level of use of library resources.

Table VI: Reasons for Non Use of Scholarly Electronic Journals (N=18)

Total N=18	Sample	Electronic resource	Frequency	Percent
		Lack of awareness	13	72.2%
		Inadequate searching skills	5	27.8%
		Total	18	100

Under-utilization of electronic journal databases has two implications. Firstly, the institution or donors waste their money on subscriptions for scholarly electronic journal databases, and secondly users are not getting the resources they need.

Rehman and Ramzy (2004: 150) commented as follows:

“...while libraries purchase and install the latest, most technologically advanced computerized information systems and procure expensive resources, these may not be optimally used due to lack of awareness or the lack of ability to use these resources among the users...”

On the other hand, Luther (2000) argued that amount of time that a specific database has been available influences its use and also it is important to allow users to integrate new information-search behaviours in their routines. It may take between sixteen months to three years for users to internalize the use of resources. This indicated that, with time, members of academic staff would internalize the use of electronic journal databases.

However, in the developed world studies showed that there was relatively high utilization of electronic scholarly journal databases by academic staff who reported using electronic journals on a daily or weekly basis for reference purposes in their research work (Dillon and Hahn, 2002; Khan and Ahmad, 2009).

Electronic Resources Used by Non-Users of Electronic Journals

Members of academic staff who did not use electronic journals were asked to indicate other electronic resources they had utilized. The results are as follows: 18 (100%) respondents used a search engine, six (33.3%) respondents used other free internet sources, four (22.2%) respondents used electronic books. These findings are shown in table VII.

Table VII: Electronic Resources Used by Non-Users of Electronic Journals (N=18)

Sample total N=18	Electronic resource	Frequency	Percent
	Electronic books	4	22.2%
	Search engines	18	100%
	Other free internet sources	6	33.3%

These findings revealed that many respondents who did not use electronic journals were using search engines. This might be attributed to the fact that search engines could serve both as a communication tool as well as a source of information for teaching and research purposes.

One respondent from Faculty of Science commented as follows:

“...I use search engines particularly Google and Yahoo for communication purposes as well as for searching for teaching materials, learning materials, and general materials while writing a literature review for my dissertation...”(P31 Faculty of Science).

Another respondent from the Faculty of Humanities and Social Sciences commented as follows:

“...I use search engines because they are the most known and familiar sources of obtaining information...” (P24 Faculty of Humanities and Social Sciences).

On the other hand, lack of awareness of what scholarly electronic journals had to offer as well as inadequate search skills contributed to under-utilization of electronic journals and a high level of the use of search engines by members of academic staff. Wilson (2004) argued that, while users are using search engines now, once they are made aware of library electronic resources and grow to trust them, they will be more likely to use them.

Table VIII: Respondents’ Opinion on Using Electronic Scholarly Journal Databases

Sample	Opinion on using electronic journal	Frequency	Percent
Total N=18	I am interested in using scholarly electronic journals	17	94.4%
	I am not interested in using scholarly electronic journals	1	5.6%
	Total	18	100

Respondents who did not use electronic journals were asked to indicate whether they were willing to use them or not. The results shown in table VIII are as follows: 17 (94.4%) respondents indicated that they were interested in using scholarly electronic journals while one (5.6%) respondent responded negatively.

These findings indicate that many respondents who were not using scholarly electronic journals have shown a great interest in using them although the opportunities to do so were limited. This could be attributed to the perceived advantages of scholarly journals such as having access to current information, information is easier to access, the speed of

delivery is better, and it is possible to gain access at multiple access points. Their failure to use the resources could be attributed to lack of awareness, poor usage skills, and inadequate ICT facilities.

One respondent from Faculty of Humanity and Social Sciences commented as follows:

“...Electronic journals provide easy and quick access to reference material and also save time...” (P43 Faculty of Humanities and Social Sciences).

Another respondent from the Faculty of Education commented as follows:

“...I am interested in using electronic journals because I will be in a position to consult materials which are research-based for teaching and be up-to-date in knowledge-wise...”(P17 Faculty of Education).

Also, another respondent from the Faculty of Humanities and Social Sciences commented as follows:

“...Electronic Journals offer better avenue for accessing up-to-date information than available library sources...”(P8 Faculty of Humanities and Social Sciences).

Frequency of Use of Electronic Journals

Respondents were asked to indicate the frequency with which they used scholarly electronic journal databases. Findings revealed low frequency of utilization of electronic journal databases compared with search engines such as Google, Yahoo, and other free internet resources

Findings show that twenty-five (86.2%) respondents indicated that they use search engines on a daily basis. Among the databases and electronic journal resources subscribed to, JSTOR and Blackwell were used on slightly high frequency. Two (6.9%) reported to use Blackwell and JSTOR on daily basis.

This was probably due to the fact that JSTOR is continuously increasing the amount of content in the archive, has greater breadth of discipline coverage covering 50 disciplines in the humanities, social sciences, economics, law, and life sciences, and has an expanded array of linking partner including Google. Google indexing has made an impact of exposing the content to a much wider audience, hence broadening the visibility of the

Table IX: Frequency of Use of Scholarly Electronic Journals (N=29)

Electronic resources	Daily	Twice a week	Once a week	Once a month	Occasional	Total
Electronic Resource	Daily	Twice a Week	Once a Week	Once a Month	Occasional	Total
Agora			2 (6.9%)	1 (3.5%)	9 (31%)	12 (25.5%)
AJOL	1 (3.5%)		1 (3.5%)		10 (34.5%)	12 (25.5%)
Blackwell	2 (6.9%)	2 (6.9%)	1 (3.5%)		12 (41.4%)	17 (36.2%)
Emerald	1 (3.5%)	2 (6.9%)	3 (6.9%)	2 (6.9%)	3 (34.5%)	11 (37.9%)
Wiley Science		1 (3.5%)		2 (6.9%)	4 (13.8%)	7 (24.1%)
Sage	1 (3.5%)	1 (3.5%)			5 (17.2%)	7 (24.1%)
EbscoHost	1 (3.5%)	1 (3.5%)	1 (3.5%)	1 (3.5%)	3 (6.4%)	7 (24.1%)
JSTOR	2 (6.9%)	2 (6.9%)		1 (3.5%)	8 (27.6%)	13 (44.8%)
HINARI	1 (3.5%)			1 (3.5%)		2 (6.9%)
Institute of physics					2 (6.9%)	2 (6.9%)
Gale				1 (3.5%)	1 (3.5%)	2 (6.9%)
ASABE					2 (6.9%)	2 (6.9%)
Cochrane					2 (6.9%)	2 (6.9%)
Springer		2 (6.9%)	1 (3.5%)	2 (6.9%)	8 (27.6%)	13 (44.82%)
Search engines	25 (86.2%)				2 (6.9%)	27 (93.1%)
Other internet sources	6 (20.7%)	5 (17.2%)	2 (6.9%)	3 (10.4%)		16 (55.2%)

content among academic staff (Spinella, 2008) as a result was used on slight high frequency

Reasons for Using Scholarly Electronic Journals

The study further sought to find out the extent to which electronic journals were being put to use. Respondents were asked to point out the reasons for using electronic journals. Table X shows that electronic scholarly journals at DUCE were mainly used for teaching purposes by 28 (59.6%) followed by research proposal writing by 26 (89.7%), current awareness by 19 (65.5%), research report writing by 17 (58.6%), writing conference

paper by six (20.7%), consultancy service by three (10.4%), and increasing their knowledge by two (6.9%).

Table X: Reasons for Using Electronic Scholarly Journals

Sample total N=29	Purpose	Frequency	Percent
	Research proposal writing	26	89.7
	Research report writing	17	58.6
	Teaching purposes	28	96.6
	Writing conference papers	6	20.7
	Consultancy services	3	10.4
	Current awareness	19	65.5
	Increase knowledge	2	6.9

These findings indicate that many respondents were not using electronic journals for consultancy services, current awareness, and writing conference papers, but rather for teaching purposes, writing research reports, and writing research proposals. Results from the interviews with Head of ICT section and Director of library as well as examination of usage statistics showed that members of academic staff were searching electronic journals mainly for teaching purposes and research purposes.

One respondent from the Faculty of Education argued that:

“...DUCE as a young college is not yet rich in terms of books particularly current ones. Accessing electronic journals is the only solution if I am to access new research findings done in other parts of the world...” (P 47 Faculty of education).

On the other hand, Moghaddam and Tawar (2008) and Madhusudhan and Chirra (2009) concurred with these findings and concluded that electronic journals in higher learning institutions were mainly used for research and education purposes.

The researcher through personal observation found that many members of academic staff at DUCE were either writing research proposals for PhD/ Masters or were writing research reports for PhD/ Masters when this study was conducted, and so electronic

journals were an ideal source for their work as also revealed by Nelson (2001). Nevertheless, the interview with the Director of library services revealed that lack of awareness of what electronic journals could offer, the irrelevance of electronic journal articles, inadequate search skills, and inadequate local content in electronic journals contributed to the low level of use of electronic journals in consultancy services, writing conference papers, and current awareness.

Training on the Use of Electronic Scholarly Journals

Responding to the question on whether they have attended training on the use of scholarly electronic journal databases, 12 (25.5%) respondents said that they had received training at DUCE, nine (19.2%) respondents said that they had received training in other institutions, and 26 (55.3%) respondents replied that they had never received any training. These results are shown in table XI.

Table XI: Training on the Use of Electronic Scholarly Journals (N=47)

Total N=47	Sample		Frequency	Percent
		Yes (DUCE)	12	25.5
		Yes (Other Institution)	9	19.2
		No	26	55.3
		Total	47	100

These findings indicate that the majority of respondents had not received any formal training in the use of scholarly electronic journal databases and also only a few respondents had received training at DUCE.

Training on the use of electronic journal databases plays a significant role in helping members of academic staff get acquainted with the library databases and this results explains why majority of them lack adequate acquaintance with the electronic journals and the searching skills and ultimately leading to underutilization of scholarly electronic journals.

Lack of training is the one of the major factors that hindered effective utilization of electronic journals even though some may have access to the internet and be aware of scholarly electronic journals. Manda (2005) argued that, training people in the use of electronic resources is a central activity in any library so that academic staff and students can effectively search for and utilize these resources, in which institutions and donors have made substantial investments.

Conclusion

This study sought to investigate the level of awareness and usage of scholarly electronic journals by members of academic staff. The study has brought forth findings that deserve attention by policy makers, administrators and librarians. It is established that, an overwhelming majority of the members of academic staff are making use of the search engines and Google in particular for academic purposes.

The findings of this study has also revealed that few members of members of academic staff use electronic journals for research, teaching, consultancy services, current awareness services and increase knowledge. However, on examine the usage of scholarly electronic journals, it was noted that the level of usage of electronic journals subscribed by the University was very low. It was further established that, the possible reasons for underutilization of scholarly electronic journals were lack of awareness and limited searching skills.

Since the DUCE spends enormous amount of money to subscribe to scholarly electronic journals for supporting teaching, learning and community services, it is clearly necessary to obtain some value for money. Additionally, underutilization of the electronic journals has a potential role to jeopardize the quality research outputs, teaching and community services at the institution.

Nevertheless, the results of this study have indicated that the majority of research scholars who had never utilized electronic journals, have shown willingness to use

electronic journals once they are made aware of the resources and being taught on the basic searching skills which can facilitate effective use of these resources

The findings of this study have provided useful insights for informing policy makers to formulate appropriate policy that will influence maximum utilization of the scholarly electronic journals in higher education institutions. It has also established basis for the library management to take proactive measures on marketing of electronic resources and training users on basic searching skills in a rational and systematic manner so as to achieve a higher level of awareness and searching skill amongst members of academic staff.

Recommendations

Based on the findings of this study, the following suggestions are put forwarded to improve and maximize the optimum usage of scholarly electronic journals by members of academic staff:

(1) Members of academic staff should be made aware of the existing electronic journal databases in order to influence usage of these resources. The institution should employ proactive marketing strategies such as the use of calendars, newsletters, posters, workshops/training, flyers and brochures. Such promotion materials should be widely distributed in the academic staff's offices and also be publicized during exhibitions, graduation ceremonies, conferences and other academic fairs.

(2) Library should look into the possibility of integrating electronic journal databases into its Website particularly in its OPAC. This would allow greater visibility of electronic journals thus making it possible for user to access full-text direct from the online catalogue.

(3) Library may provide selective dissemination of information to faculty members regarding appropriate list of electronic journals databases.

(4) Members of academic staff should be provided with more chances of formal training on in order to acquire the requisite search skills in the use of electronic journal databases.

In this regard, the institution should provide more training for academic staff at regular interval. It should initiate a strategy of “moving out of the library and going to the people” to conduct training in the respective faculties where many academic staff would be reached.

(5) The libraries' web pages should provide an online guide and various search-options to scholarly electronic journals.

(6) The library should subscribe to relevant scholarly electronic journal databases.

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