USE OF ELECTRONIC DATABASES AMONG ACADEMICS AT ONDO STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY (OSUSTECH) LIBRARY, OKITIPUPA, NIGERIA

Josiah Ifedayo Adeyomoye
University Librarian
e-mail: ifedayoadeyomoye@yahoo.com

Abiodun Olaide Iyoro
Principal Librarian
e-mail: abiyoro@yahoo.com

Victoria Adesola Alade (Mrs)
Librarian I
e-mail: avshola@yahoo.com

Ondo State University of Science & Technology
P. M. B. 353, Okitipupa, Nigeria

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ABSTRACT

Ondo State University of Science and Technology library subscribes to EBSCO Academic Search Complete database and registered for access to free electronic databases, vis-à-vis, AGORA, HINARI, JSTOR, AJOL and OARE which contains current electronic journals to satisfy the information needs of her users particularly the academic staff and students. Having rendered this service for three academic sessions, it is appropriate for the stakeholders to assess the performance of the e-library and its resources in terms of their perception about the electronic resources and the services rendered. Therefore, this study is carried out to find out whether the electronic journals are able to satisfy their information needs. A questionnaire was designed to elicit responses from the academic staff. Their responses is expected to enable the library assess the collection of electronic databases in terms of their adequacy, pertinence, currency and ease of access and consequently provide opportunity for improvement.

Keywords: Electronic Databases; Electronic Journals; Usage; OSUSTECH Library; Academics; e-library; Library Services.

INTRODUCTION

Technology has transformed every aspect of human life, thus making doing things easier, faster and more precisely. The use of Information and Communication Technology (ICT) has made storage and retrieval of information less cumbersome in this era of information explosion. Librarians have transformed into digital and virtual libraries where printed books, journals, magazines etc have changed to electronic formats.
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vis-a-viz, e-journals, online databases, e-books etc. This has made availability of information easy and timely, because the electronic formats are accessible through remote means via the internet. In academic publishing, electronic journals are compiled into electronic databases on various discipline e.g AGORA (Access to Global Online Research in Agriculture) which consists of many journal titles in the area of research in Agriculture.

Ondo State University of Science and Technology (OSUSTECH) Library subscribes to EBSCOhost Academic search complete database and register for free access to other specialized electronic databases like HINARI, JSTOR, AJOL, OARE, AGORA etc to complement the printed journals in the library.

Academics rely on current and timely information in pursuit of their teaching and research activities. The availability of electronic journals on the internet afford them the opportunity of obtaining relevant information at a record time and without stress. They can access the e-journals from any location once they can link with the internet.

This article therefore, is aimed at studying the use of e-journals contained on the various electronic databases available in Ondo State University of Science at Technology (OSUSTECH) e-library and find out the level of satisfaction among the academics in the faculty of science.

PROFILE OF ONDO STATE UNIVERSITY OF SCIENCE & TECHNOLOGY (OSUSTECH) LIBRARY

The library and Information Resource Centre of Ondo State University of Science and Technology, Okitipupa, Nigeria, came into existence with the take-off of academic activities in the university on January 2011. The Centre has as her mission, the provision of primary literature sources and information services in both print and electronic versions in support of the educational and research activities of the university. This was pursued by the development of sustainable and all-embracing quality library collections covering all the programs offered by the university. Also, access to collections owned by other institutions was facilitated. The Library served as a gateway and contributor to global network information services; provide assistance and education in information retrieval, utilizing current technologies and assisted the students to become information literate. Precisely, library material vis-à-vis, books, journals, reference materials, electronic journals, databases etc. were acquired through donations from Nigerian Book Foundation (NBF) Awka, Anambra State, Ondo State Government, friends of the university and purchase of both foreign and local materials through vendors to develop the library collections. Subscriptions to both print and electronic journals also added to the collection.

Operations and services to library users took-off at the Centre on March 1, 2011 with three (3) professional Librarians and eight (8) support staff in the junior cadre. The primary users of OSUSTECH Library and Information Resource Centre are the students
and staff of the university. The Centre is a reference library to the university community, the parent state, Nigeria and the whole world.

The Centre took-off with about 800 volumes of books and several issues of unsolicited journal titles, sourced mainly as donations. Within a short time of her existence, the University Management approved the acquisition of over 1900 volumes of current and relevant books and subscription to two of each foreign and local academic and professional journal titles per each programme offered in the university. To date, the collection contains over 5500 volumes of books, twenty (20) foreign journal titles and twenty-four (24) local ones. Available reference materials include Encyclopedia Britannica, Encyclopedia Americana, Encyclopedia of Science and Technology, Britannica Great Books, Dictionaries etc.

The e-library component of the library has twenty-five (25) of computer workstations and internet facility. Available electronic resources accessible at the workstation include EBSCOhost Academic Search Complete database which is on annual subscription. The library registered for free access to other specialized databases, vis-à-vis, AGORA (Access to Global Online Research in Agriculture), HINARI (Access to Research in Health programmes), JSTOR (Journal Storage), OARE (Online Access to Research in the Environment), AJOL (Africa Journal Online), ALUKA (Subsidiary of JSTOR), and linked to Nigerian Virtual Library of National University Commission (NUC)

OBJECTIVE OF THE STUDY

The study is carried out to see how electronic journals contained in electronic databases, e.g EBSCO databases, AGORA, OARE etc are being used by academics at Ondo State University of Science and Technology, Okitipupa. It aimed at identifying the users’ opinions of different features of electronic journals, their awareness of electronic journal service, purpose of use, preferred formats and more.

REVIEW OF THE LITERATURE

The user and usage studies of electronic journals appeared in the literature in the 1990s, when a large number of electronic journals had become widely available. These studies were mostly carried out among the academic staff of tertiary institutions who were the most frequent users of scholarly journals (Diedrichs 2001, Holmquist, 1997; Woodward 1998, Lenares, 1999; Brown, 1999).

Most studies in available literature showed comparative studies between print and electronic journals usage. However the present study investigates the use of electronic journals contained in electronic databases among the faculty members of Ondo State University of Science & Technology, Okitipupa.
Brown (1999), in his survey of information seeking behavior of scientists in the electronic information age, reported a huge acceptance of electronic journal and an unwillingness to return to print version only.

Clajus and Maier (2001) carried out a survey among the academic staff and found that 16 percent of respondents did not want to renounce the print version of the journal under any circumstances. The biggest advantages of the new service were full-text access from their own desktop (49 percent), and the better currency of the electronic journal over print.

De Groote Sandra & Dorsh (2001) reported that print journal usage decreased significantly since the introduction of online journals. The decrease in use of the print collection suggests that many patrons prefer to access journals online.

In 2002, another user study carried out at the Rudjer Boskovic institute (RBI) in Zagreb Pazur (2002) showed a high acceptance and use of electronic journals among scientists in the Institute. The respondents stressed the availability before print version as the important advantage of the electronic journals and remarked the slow download of the articles as the greatest disadvantage. However, few respondents thought that electronic journals have no disadvantages at all, while some preferred print version in situation where both versions are available, but many used both versions equally.

Heterick (2002) reports that more than 60% of faculty members studied are comfortable using electronic resources. They believe that a variety of electronic resources is important to their research, and they consider electronic databases to be invaluable. In addition, 62% expect that they will become increasingly dependent on electronic resources in the future. The resources they use most often are online catalogs, full-text electronic journal databases, and abstracting and indexing databases. More than 70% of all respondents consider their library’s online catalogue to be “very important” to their research. However, the importance of this resource varies significantly by field. Just over 60% of the economists consider their library’s online catalogue to be “very important”, while nearly 90% of humanists regarded it as such. In fact, the home library catalogue is the most important electronic resource for humanists by a large margin. Based on their replies, it is as important to their research as personal computers.

Omotayo (2010), Thanuskodi (2010), Sharma (2009), Borrego (2007), and Ibrahim (2004) have all reported that e-journals are the most used among the arrays of available electronic resources.

As reported by Omotayo (2010) 22 (8.98%), 67 (37.35%), 102 (41.63%), 34 (13.88%) and 20 (8.16%) of the total population of 245 used electronic journals fairly, weekly, monthly, bi-monthly and occasionally respectively. A majority use e-journals monthly, while 52% of total population in Borrego, et al. (2007) stated that they use electronic journals exclusively or mainly.
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Salaam and Adegbore (2010) discovered that search engines are an essential electronic resource for students of private universities in Ogun State, with 51 (45.95%) of the total population of 111 using them very frequently.

Kumar and Kumar (2008) found that 70.33% of respondents agreed that electronic information sources provide more comprehensive information, and 58% of respondents agreed that they can now do better research because of availability of electronic information resources.

Ibrahim (2004), Thanuskodi (2008), Obaje and Camble (2008), Saka and Abdulrahman (2008) have all indicated in their research results the positive satisfaction of respondents to the use of electronic resources.

Sharma (2009) discovered that a majority of teachers and research scholars (59.62%) and (56.67%) are not satisfied with the existing IT infrastructure within the organization studied. This and other problems highlighted in the surveys by Aramide and Bolarinwa (2010), Awokiigbe, Awotidebe and Amosa (2009), Agbonlahor and Oyekan (2008), Blessing (2008) among others have reported problems hindering the proper use of electronic resources, giving credence to the fact that academics show satisfaction with the output of electronic resources.

RESEARCH DESIGN

The Survey research design was adopted in the study using the questionnaire method. The questionnaires were distributed to 36 academic staff in the Faculty of Science of Ondo State University of Science and Technology (OSUSTECH), Okitipupa. They constituted the study group because they use the e-resources in the e-library dominantly for their teaching and learning activities. 26 fully completed questionnaires were returned for analysis. This is 72% response which is good enough for a valid study. The study is centred on their satisfaction or otherwise with the electronic databases available in the e-library.

DATA ANALYSIS AND DISCUSSION

Data were analyzed using descriptive statistics frequency counts and simple percentage presented on tables.

Table 1: Awareness of electronic journals

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table clearly indicated the awareness of electronic journals by academics (lecturers) working at Ondo State University of Science and Technology, Okitipupa as the entire study population representing 100% affirmed their awareness.
Table 2: Usage of electronic journal

<table>
<thead>
<tr>
<th></th>
<th>O</th>
<th>E</th>
<th>O - E</th>
<th>(O - E)^2</th>
<th>(O - E)^2/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>13.0</td>
<td>11</td>
<td>121</td>
<td>9.3</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>13.0</td>
<td>-11</td>
<td>121</td>
<td>9.3</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td>18.6</td>
</tr>
</tbody>
</table>

Step 1 = Chi-square x^2 = E(O-E)^2
Step 2 = Calculated chi-square^2 (x^2) = 18.6
Step 3 = degree of freedom (df) = (R - 1) (c - 1)
Where R = number of rows
C = number or column
Df = (2 - 1) (2 - 1)
= 1 x 1
Df = 1
Step 4 = level of significance = 0.05

From Table 2 above, it was revealed that number of academics (lecturers) that make use of electronic journals surpass that of their colleagues who do not use the facility, as 24 respondents (92%) admitted its usage while only 2 or (8%) of them have a contrary view.

Table 3: Purpose (s) for using electronic journals

<table>
<thead>
<tr>
<th>Purpose of use</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Needs</td>
<td>18</td>
<td>69.2</td>
</tr>
<tr>
<td>Professional Achievement</td>
<td>5</td>
<td>19.2</td>
</tr>
<tr>
<td>Recreational</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Win Award</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Current Information</td>
<td>3</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

Research needs has been revealed as the major reason why academics make use of electronic journals. This is because 18 or 69.2% of the study population, indicated that as their primary objective, while 5 or 19.2% opined their consultation was for professional achievement, while 3 (11.6%) of the respondents believe they consult electronic journals to seek for current information.

Table 4: Frequency of access to electronic journals

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
</table>
There is no doubt, Ondo State University of Science and Technology, Okitipupa provides open access to their electronic journals, evident with 13 or 50% that constituted the majority of respondents indicating daily access to e-journal, 8 or 30.8% utilizing e-journals on weekly basis, 3 or 11.5% using it biweekly, with just 2 (7.7%) of the respondents making use of e-journals on monthly basis.

**Table 5: Reading e-journals**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read on Monitor</td>
<td>17</td>
</tr>
<tr>
<td>Read print out</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
</tbody>
</table>

From the above findings, it is clear that majority of the respondents read e-journals directly from the monitor as 17 or 65.3% of them attest to that with 9 or 34.7% others reading the print out. From this, one can conclude that respondent’s preference for reading e-journal directly on the monitor superceed that of reading the print out. Probably this may also be as a result of not having enough copies of print out that can adequately go round the academics.

**Table 6: Perceptions on e-journals general features**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>SD</th>
<th>D</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Up-to-date information</td>
<td>22 (84.6%)</td>
<td>3 (11.5%)</td>
<td>-</td>
<td>1 (3.8%)</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Search Capabilities</td>
<td>13 (50%)</td>
<td>8 (30.8%)</td>
<td>-</td>
<td>2 (7.7%)</td>
<td>3 (11.5%)</td>
</tr>
<tr>
<td>3.</td>
<td>Download Possibilities</td>
<td>9 (34.7%)</td>
<td>3 (11.5%)</td>
<td>4 (15.3%)</td>
<td>7 (27%)</td>
<td>3 (11.5%)</td>
</tr>
<tr>
<td>4.</td>
<td>Full Text Retrieval</td>
<td>5 (19.2%)</td>
<td>6 (23%)</td>
<td>6 (23%)</td>
<td>7 (27%)</td>
<td>2 (7.7%)</td>
</tr>
<tr>
<td>5.</td>
<td>Retrieval possibilities</td>
<td>7 (27%)</td>
<td>5 (19.2%)</td>
<td>-</td>
<td>10 (38.5%)</td>
<td>4 (15.3%)</td>
</tr>
<tr>
<td>6.</td>
<td>Hypertext Links</td>
<td>18</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>
In seeking for the respondents opinion about e-journal general features, it is amazing to note that what interest the respondents mainly is its up-to-date information nature with 84.6% of them expressing this view, 73% others express satisfaction with e-journal ability to link them to related items, while hypertext links and search capabilities recorded 69.3% and 50% perception rate respectively. However, it should be noted that the respondents perceptions with regards to retrieval possibilities, full text retrieval as well as download possibilities all recorded low percentage which simply signifies that the activities as far as the respondents are concerned are not complimentary.

Table 7: Electronic journals as one of the most important parts of scientific communication.

<table>
<thead>
<tr>
<th>Responses</th>
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<td>100</td>
</tr>
</tbody>
</table>

Table 7 above shows the basic fact about the respondents believe about e-journal with all of them 26 representing (100%) accepting the statement that e-journals are one of the most important parts of scientific communication introduced to curb the deficiencies associated with printed resources.

SUMMARY OF MAJOR FINDINGS

- All the academics (lecturers) working at Ondo State University of Science and Technology, Okitipupa are aware of the existence of e-journals in the University e-library.
- Population of lecturers making use of e-journal outnumbered that of their colleagues who don’t with 92% of them constituting the users.
- It was discovered that the respondents major reasons for using e-journals is to accomplish their research needs which was affirmed by 69.2% of the respondents. This is followed by professional achievement and seeking for current information both constituting 19.2% and 11.6% respectively.
- More than 50% of the respondents access e-journal on daily basis. This may probably be due to the University Library’s open access policy to its resources.
- Majority of the respondents or 65.3% of them prefer to read e-journal on the monitor while 34.7% others prefer the print out.
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- It was also discovered that what interest the respondents about e-journals is its ability to provide up-to-date information as 84.6% of the respondents attest to this.
- All respondents attest to the fact that e-journals are one of the most important parts of scientific communication introduced to curb the deficiencies associated with printed resources.

CONCLUSION AND RECOMMENDATIONS

With e-journals fast gaining ground among all and sundry, there is no doubt that it will definitely remain the instrument for impacting knowledge within the 21st century and beyond.

- With larger percentage of the respondents believing that e-journals are meant to curb deficiencies associated with printed resources, it becomes imperative for librarians to organize training on search strategies for the lecturers to facilitate effective use of the facility.
- There is need for the University Management to make adequate fund available to the library, so that very recent and information rich e-journals that cut across all the disciplines offered in the university can be acquired.
- Since majority of the respondents are interested in accessing the e-journals on the monitor, there is the urgent need to make provision for more work stations as this will enable many people to benefit from the availability of e-journals in the library.
- The students should be encouraged more to access e-journals, as this will impact positively on their knowledge in carrying out research for their project.
- To further sustain the lecturers interest in the use of e-journals, the library should by provide ‘Selective Dissemination of Information’ (SDI) service to them.

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