USE OF ELECTRONIC RESOURCES BY FACULTY MEMBERS IN LANDMARK UNIVERSITY

Aregbesola, A. & Oguntayo, S.
Centre for Learning Resources,
Landmark University,
Kwara State, Nigeria
aregbesola.ayooluwa@lmu.edu.ng, oguntayo.sunday@lmu.edu.ng

ABSTRACT

The study examined the use of electronic resources by faculty members in Landmark University, Omu-Aran. It aimed at finding out level of awareness, frequency of access, motivations and constraints of electronic resources use among faculty members. The predictors of electronic resources use were also identified. Stratified sampling technique was used to select faculty members from various academic units within the university. A structured questionnaire was used to collect data from a sample of 109 faculty members. Frequencies and linear regression were used for data analyses. Findings revealed that faculty members use electronic resources for academic purposes. Having access to wide range of books and journals, increased access to current materials, and, to carryout research are the major motivations of electronic resources use by faculty members. The consequence of prolonged e-book reading and the need to be computer literate were identified as constraints of electronic resources use. The study recommends that user training should be frequently organized for better usage as well as stimulates the interest of users.

Keywords: Electronic Resources, access, motivation, constraint

1. INTRODUCTION

Information and communication technology (ICT) has affected the way teaching, learning and research is conducted especially in Universities. Research basically involves collecting and processing data and information, and exchanging and using information to improve knowledge. Tiamiyu (2003) stated that one of the most remarkable developments in the modern society has been what is variously described as information explosion, information revolution, or the advent of information age or information society. Since about the mid-1970s, mankind has witnessed a phenomenal growth in the number and variety of information products, services, systems and sources. The catalyst of the growth has been rapid innovations in electronic technologies for creating, processing, communicating and using information. With the aid of relevant ICTs, it is possible for a researcher to have access to full digital information resources of local, distant libraries and databases remotely using computers and the internet. Since ICTs are designed for data retrieval, for exchanging information, and for using information to improve knowledge

The growing proliferation of variety of electronic information resources (e-resources) and technologies over the last decade has revolutionizing influence on libraries and information centers in Nigeria, their staff, and other patrons. The change is noticeably visible in that today's libraries, and especially the components of electronic information retrieval, present a type of "culture shock" for many users (Tibbo, 1999). A significant transformation has been noticed in collection development policies and practices. Print medium is increasingly giving way to the electronic form of materials (Sharma, 2009). Electronic resources, like CD-ROM, online journals, e-books, OPACs, and the internet, are slowly replacing the importance and usage of print media. The emergence of electronic information resources has tremendously transformed information – handling and management in Nigerian academic environments, and University libraries in particular (Ani, Okon E. and Ahiauzu, (2008). Dadzie (2005) writes that electronic resources are invaluable research tools that complement the print – based resources in a traditional library setting. According to her others include: access to information remotely due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents.

Okiki and Asiru, (2011) defined electronic resources as information stored and transmitted in digital, electronic or computerized formats such as diskettes, CD-ROM databases, DVDs, online public access catalogues (OPAC), bibliographic and full-text databases, electronic journals, scholarly databases, information gateways, e-books, the Internet and electronic mails. The use of electronic resources has gained prominence in universities across the globe and many academics are availing themselves of the opportunity to exploit these resources to access relevant, current and updated information for diverse purposes. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate costs and revolutionize ways to access information. It appears that electronic databases are convenient for searching huge amounts of data within shortest possible time. The paper therefore seeks to examine the usage pattern of electronic information resources by academic staff to support teaching, learning and research.

1.1 Research Problem and Objectives

The increasing growth of electronic publications has reshaped the nature of information collections, delivery, access and usage in modern libraries. Electronic resources are popular because they provide more flexibility in searching than the print collection, and they can be accessed remotely at any-time. However, little research has been conducted on electronic information resources use and how demographic variables such as age, gender, discipline, academic qualification, living type, and marital status influence its use, especially among faculty members. Also, the use of electronic resources may be influenced by cultural and ethnic differences. Usage of electronic resources by academic staff in Landmark University, Omu-Aran, Nigeria might differ from its use by others. Given the pervasiveness of electronic resources in educational institutions in Nigeria, there is a need for research on the drivers of its use ahead of printed resources despite the inherent constraint of its use. This research hopes to provide empirical evidence on the motivations, constraints of e-resources use, among faculty members in Landmark University, Omu-Aran, Nigeria.

Specifically, the objectives are:

- 1. To ascertain level of awareness of faculty of the availability of e-resources in their institution's libraries
- To determine the level of faculty's frequency of access to e-resources
- 3. To identify users' motivation for using e-resources
- 4. To identify perceived constraints of e-resources use
- 5. To predict the influence of demographic variables, motivations and perceived constraints on the use of e-resources.

2. LITERATURE REVIEW

Electronic information resources usage has been found indispensable especially among academic staff (Bar-Ilan, Peritz, and Wolman, 2003). They found out that academic discipline of academic staff influence its usage pattern. Most of the Nigerian higher educational institutions especially universities provide online databases and other electronic resources to their users to support teaching, learning and research. Many studies have shown that electronic resources, are gradually replacing the printed ones. Falk (2005) reviewed library online databases of United States libraries and described the availability of online databases for library patrons in the USA. It was established that online databases are now widely available to library patrons in the United States. Singh and Gautam (2004) in their study titled "Electronic databases: the Indian scenario," which focused on access to information through online or CD-ROM media. The study concludes that modern information technology provides easy access for almost everyone to the ever-growing amount of stored information in various electronic databases across the world which has changed the nature of information delivery and consumption. Odini (1997) in a study carried out at the University of Sheffield established that online searches have some considerable advantages over manual though manual sources still have some qualities which make them treasured. Furthermore, Okiki and Asiru (2011) observed that one of the strongest factors that influence the use of electronic resources is the need to carry out research. Agba, Kigongo-Bukenya, and Nyumba (2004) noted that the shift from print to electronic information means that both academic staff and students in a university system must use these resources for better quality, efficient, and effective research more than ever.

Information that is available but not accessible to users is of no value. Okoye and Ejikeme (2011) affirmed the necessity of accessing needed information research, in enriching education and sharing of knowledge; since there is a critical need to make research results available to as many academics and elite class as possible. However, despite the inherent benefits, researchers into the use of electronic resources have examined constraints associated with the use of ICTs and e-resources in Nigeria (Ondari-Okenwa, 2004; Ashcroft and Watts, 2005; Adomi, 2005; Oduwole and Sowole, 2006; Watts and Ibegbulam, 2006). These include inadequate ICT skills among staff and users, low basic information literacy levels in the Nigerian population, prohibitive cost in developing countries to gain access to internet through cybercafé, inadequate ICT infrastructure and affordable online access.

However in a, recent study of 117 faculty members on the use and user perception of e- resources in Annamalai University, Natarajan *et al.*, (2010) established that frequency of electronic resources was low despite its wide range availability. Identified constraints he further noted were: inadequate time, poor awareness, poor subject coverage, and slow downloading. While Igbo and Imo (2010) identified lack of electronic resources and irregularity in subscription to electronic journals as some of the factors inhibiting the use of electronic information resources. In the same vein, Omotayo (2010) observed that, a major issue that constrains users is awareness of electronic information resources. He however argued that awareness of electronic resources is not necessarily a proof of its use. A factor that could discourage some people, particularly the older ones, from using electronic resources is the consequence of prolonged e-book reading. Apart from straining the eyes, using e-resources efficiently will require some computer literacy. Electronic resources are easier to be searched for especially among vast amounts of data within the shortest possible time. Significantly, a good number of sources are available with the aid of the Internet, some of which can be accessed free of charge. Use of e-resources is becoming more pervasive. Research has to be undertaken in this regard. This study focuses on the effects of demographic variables, motivations, and the constraints of electronic resources on the pattern of its use.

3. METHODS

3.1 Study Area

The population of study comprised faculty members of Landmark University Omu-Aran, Nigeria. This study used a questionnaire-based survey method, as many similar studies conducted earlier have also used this method for data collection such as (Oduwole and Sowole, 2006; Salaam, 2007; Natarajan et al., 2010; Okoye and Ejikeme, 2011) and the extent of

reliability can be measured. There were 3 colleges and Centre for Learning Resources (Library) within Landmark University as at May, 2013. These colleges are: College of Agricultural Sciences, College of Science and Engineering, College of Business and Social Sciences.

3.2 Sample and sampling procedure

A stratified random sampling technique was used in selecting the number of faculty members from each college within the university. Faculty members were chosen as the target sample in the study because the likelihood of them using electronic resources is high to support teaching, learning and research. Considering a strategy to facilitate easy access to the respondents as well as ensure the inclusion of faculty members from different academic colleges, departments, units and discipline led the researchers to choose colleges, departments or academic units as the case may be to form each stratum that were sampled. The sample size for this study constitutes 50 percent of the total population of faculty selected. For face validity, the questionnaire was circulated to faculty members in Centre for Learning Resources, Landmark University for their comment and observations. Their observations were considered in designing the final copy of the questionnaire before they were personally distributed to the faculty members in May 2013.

3.3 Data Analysis

Analysis of data was based on returned copies of questionnaire. Responses from the questionnaire were coded and Statistical Package for Social Science (SPSS) software was used for the analysis. The analysis of data generated in this study involved multi-level procedure. At the first level of the analysis, descriptive statistics such as simple frequency table and mean were used to describe the demographic data of the respondents, level of awareness, users' motivation, perceived constraints and their frequency of access to Electronic Information Resources. Finally, regression analysis was used to examine how demographics, motivations, and perceived constraints of using electronic information resources predict its use.

4. RESULTS

4.1 Demographic characteristics of the respondents

A total of 109 copies of the questionnaire were distributed, and 92 copies were completed and found useful for this research, a considerably very high return rate of 84%, given that the survey was voluntary. Table 1 show that more males (82.6%), than females (17.4%) most of whom are less than 45 years old (69.6%), participated in the study. Most of the respondents were married (73.9%), and are masters degree holders (67.4%), and were mainly those who live on campus (84.8%).

Table 1: Demographic characteristics of the respondents

Variable	Measurement	Frequency	Percent	Cumulative Percent
Age (Years)	25-34	33	35.9	35.9
	35-44	31	33.7	69.6
	45-54	16	17.4	87.0
	55-64	10	10.9	97.8
	>64	2	2.2	100.0
Gender	Male	76	82.6	82.6
	Female	16	17.4	100
Highest academic qualification	Bachelor degree	0	0	0
	Masters degree	62	67.4	67.4
	PHD	30	32.6	100.0
Marital Status	No response	6	6.5	6.5
	Married	68	73.9	80.4
	Single	18	19.6	100
Residence	No response	3	3.3	3.3
	Living on campus	78	84.8	88.0
	Living off campus	11	12.0	100.0

4.2 Awareness of the availability of Electronic Resources

Awareness of electronic information resources was inquired by asking the following question "Do you know that the university library provides e-resources for the use of faculty members". All the respondents reported that they know the university library provides e-resources for their use.

4.3 Frequency of using Electronic Resources

On a dichotomous scale, inquiries about use frequency were guided by two questions, namely: "Do you like to read e-books" and "Do you use online journals for academic purposes" More respondents (90.2%) reported using e-books than those who use online journals (83.7%). Spearman rank correlation analysis was used to establish that there is a significant association between these two variables (r = 0.287, p = 0.006), for which reason the two variables were aggregated to read "Do you use e-resources" and 86.9% reported that they use e-resources. In order to assess the frequency of using electronic information resources, the respondents were asked to indicate any of five options. As shown in Table 2 the majority of faculty members use electronic resources either daily (31.5%) or two to three times a week (26.1%), while a smaller percentage use them weekly (16.3%) or occasionally (5.4%). However, 13.0% of the faculty members reported to have never used any of the electronic resources.

Table 2: Frequency of using Electronic Resources

How often do you use e-resources?	Frequency	Percent
Daily	29	31.5
2-3 times a week	24	26.1
weekly	15	16.3
Occasionally	5	5.4
Not at all	12	13.0
No response	7	7.6
Total	92	100.0

It is established from the analysis that the faculty members are frequently using electronic resources provided by their university library.

4.4 Motivations for using Electronic Resources

Table 3 shows the various motivations of electronic resources use as reported by the faculty members. Results presented in Table 3 showed that for access, a lot of respondents agreed that they use electronic resources because they provide platform of having access to wide range of books (81.5%) and journals (88.0%), access to reliable information resources (84.8%), increases access to current materials (90.2%), and to carryout research (90.2%). On convenience, most respondents reported that they use electronic resources because information retrieval is quick and immediate (76.1%), Electronic resources are easy to use (78.3%), there is access from their comfort zone (64.1%) as well as enables one to make use of any library resources remotely and outside library's opening hours (54.3%).

Table 3: Motivations for using Electronic Resources

Access	Response (%)		
	Agree	Disagree	Do not know
Provides platform of having access to wide range of books	81.5	2.2	16.3
Provides platform of having access to wide range of journal articles	88.0	2.2	9.8
Access to reliable information resources	84.8	2.2	13.0
It increases access to current materials	90.2	3.3	6.5
To carryout research	90.2	3.3	6.5
Convenience			
Information retrieval is quick and immediate	76.1	7.6	16.3
E-resources are easy to use	78.3	9.8	12.0
There is access from my comfort zone	64.1	18.5	17.4
Enables one to make use of library resources remotely and outside opening hours	54.3	16.3	29.3

4.5 Perceived Constraints of Electronic Resources Use

Table 4 presents frequency distribution of shortcomings of electronic resources use. Results presented in Table 4 showed that most respondents agreed some computer literacy is required (60.9%) and also agreed that there is consequence of prolonged e-book reading (41.3%). However, only 29.3% of faculty members reported slow internet speed, and 26.1% consider finding relevant electronic resources difficult. Irregular power supply and unavailability of facilities to access electronic resources were not perceived to be constraints to the use of e-resources as only 32.6% and 22.8% respectively reported it was.

Table 4: Perceived constraints of Electronic Information Resources use

Constraints	Respons	Response (%)		
	Agree	Disagree	Do not know	
Some literacy required	60.9	25.0	14.1	
Consequence of prolonged e-book reading	41.3	44.6	14.1	
Slow internet speed	29.3	56.5	14.1	
Difficulty in finding relevant information	26.1	64.1	9.8	
Irregular power supply	32.6	57.6	9.8	
Unavailability of facilities to access electronic resources	22.8	64.1	13.0	

From the table it can be inferred that only computer literacy that is required before electronic resources can be used and consequence of prolonged e-book reading constitute obstacles to the use of EIR. Although other variables somewhat inhibit the use of electronic resources. But it appears faculty members that are not computer literate might be struggling to use e-resources and this may be why it is problematic in this regard

4.6 Predicting e-resources usage pattern

Most of the respondents (68.5%) prefer online journals than other form of e-resources, they were mostly familiar with science direct (60.9%), 52.2% with Journal Storage (JSTOR), 48.9% with EBSCO, 40.2% with Access to Global Online Research in Agriculture (AGORA), while 40.2% with EBRARY- an e-book platform and 79.3% of whom were satisfied with the e-resources provided by the university library. 64.2% of the respondents most frequently use e-resources remotely;

37.0% of whom were from home (staff quarters), 27.2% from their offices and other places within the university while only 22.8% and 6.5% use the resources within the university library and at internet access point (off campus) respectively. Furthermore, as shown in Table 5, regression analysis shows the pattern of relationship between uses of electronic resources and the predictor variables. For motivation, access from comfort zone and ease of use has a significant relationship with use of e-books, but access to wide range of resources has a greater significance. The following motivation variables: access to wide range of journal articles, access to reliable information resources, remote access, ease of use, access to current materials, Access from comfort zone, significantly relate to use of online journals, although the later four were more significant than the former two. An electronic resources constraint of prolonged e-book reading relates significantly with the use of e-books while the relationship is negative. Computer literacy required and prolonged e-book readings have significant relationship with online journal use. Age has a relatively high and significant relationship with using e-books, and also has significant but negative relationship with use of online journals. Being single is significantly related to using online journals. PHD status of academic qualification relates significantly with using online journals.

Table 5: Regression analysis uses of electronic resources with demographics, motivations and its constraints

Predictors	Use E-Books		Use Online Journals	
	ßeta	Sig. level	ßeta	Sig. level
Motivations				
Access to wide range of books	0.428	0.009**	-0.005	0.968
Access to wide range of journal articles	-0.135	0.616	0.391	0.051*
Access to reliable information resources	-0.029	0.867	-0.378	0.003***
Access to current materials	-0.083	0.434	0.438	0.000***
To carryout research	-0.311	0.341	-0.154	0.521
Retrieval is quick and immediate	-0.015	0.932	-0.042	0.748
E-resources are easy to use	0.356	0.037**	0.680	0.000***
Access from my comfort zone	-0.278	0.044**	0.514	0.000***
Remote access to library resources	-0.067	0.634	-0.327	0.002***
Constraints of EIR use				
Computer literacy required	0.093	0.445	0.223	0.038**
Prolonged e-book reading	-0.313	0.009**	0.217	0.038**
Slow internet speed	0.060	0.686	0.109	0.398
Retrieval difficulties	0.186	0.311	-0.103	0.521
Power supply	-0.018	0.909	0.410	0.434
Unavailability of facilities to access e-resources	0.128	0.369	-0.515	0.811
Demographics				
Gender (Reference = Males)	-0.135	0.204	-0.026	0.810
Females	0.223	0.035**	-0.270	0.011**
Age				
Highest academic qualification (Reference = Bachelor				
degree)	-0.139	0.489	-0.106	0.573
Masters degree	-0.146	0.469	-0.445	0.020**
PHD				
Residence type (Reference = Off campus (on my own)				
Living on campus (staff quarters)	0.113	0.299	0.159	0.140
Marital status (Reference = Married)		0.635		
Single	0.052		-0.223	0.041**

(Notes: Electronic resources users were coded as 1, and 0 otherwise; values in the table are standardized coefficients; *P<0.1, **P<0.05, ***P<0.005.)

5. DISCUSSION

Electronic resources are no doubt an emerging and preferred choice among various medium of presenting and using information by academic staff in Nigerian universities. The change is remarkably visible in today's libraries, and especially the mechanisms of electronic information retrieval, present a type of "culture shock" for many users. In varying degrees, faculty members reported using electronic resources for academic purpose; and they make use of e-books most, followed by online journals. The findings of this research suggest that faculty members access e-resources more from their offices, staff quarters and other places within the university campus as compared to the library. This result supports the enormous importance of electronic resources among faculty members in the process of teaching, learning and research. Further studies would be required to establish exactly the level of information accessed from electronic source and. It is also important to understand the purpose for using it. Do lecturers also publish their research on electronic platform? This understanding is important to know the extent to which lecturers are willing to use electronic platform to achieve delivery of educational information to their students.

Having access to wide range of books and journals, increased access to current materials, and, to carryout research are the major motivations of electronic resources use while ease of use, quick and immediate retrieval of information as well as accessing library resources from comfort zone and remotely further explains electronic resources use. The frustration that accompanies prolonged e-book reading and computer literacy is required to able to make use any resources on electronic platform constitute the major constraints reported by electronic resources users.

The demographic characteristics of highest academic qualification of faculty members, marital status and age level were significant in classifying online journals users for academic purpose. Age is the major demographic factors determining whether a faculty member will or will not use e-books. On the other hand, ease of use of the platform and access to wide range of books and access them from comfort zones are significant motivations when using e-resources. Also, consequences of prolonged e-book reading also classify those who use e-books from those who do not.

A regression analysis shows that for e-book use, Age, highest academic qualification as well as marital status of the respondents negatively predicted use of online journals. Furthermore, access to wide range of journal articles, access to reliable information resources, access to current materials, access from my comfort zone, remote access to library resources and ease of use are the major significant motivation explanations for using online journals, although the constraints of required computer literacy and consequence of prolonged e-book reading significantly inhibit this use.

5.1 Limitations and Recommendation

This study investigated the extent to which a combination of motivations, constraints of electronic resources use and demographics can be used to predict electronic resources usage patterns. However, this research is subject to certain limitations. First, only faculty members from one university were sampled, the study may have limited generalization to other users, institutions and regions. Secondly, participation in this study was strictly voluntary and there was no follow-up when a questionnaire was not returned. User training is essential for the better use of electronic resources in the library since a good number of users are searching electronic literature on their own. Electronic resources users should be taught about advanced search strategies and the use of controlled vocabulary to make electronic search process much easier. This could help to convert non-users into potential users of the resources. The library management therefore needs to conduct user study programs to know more about electronic resource needs of users, so as to stimulate the interest of heavy users.

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