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Factors Influencing Electronic Information Sources Utilised by Pharmacy Lecturers in Universities in South-South, Nigeria

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Abstract

This study is a comprehensive investigation of key factors influencing the utilisation of electronic information sources (EIS) by pharmacy lecturers in both government and private universities in South-South Nigeria. This study aims at identifying the significant factors that influence the usage of EIS in order to provide remedies to increase their utilisation. Survey research method was adopted using questionnaire as an instrument for data collection from the population by simple random sampling. Results indicate that awareness level of EIS among the lecturers was moderate and usage was high. There is no significant difference in the level of awareness of EIS across the five universities. There is no significant influence of academic and gender status of respondents on the usage of EIS. Awareness of EIS, computer and Internet literacy skills and competence of pharmacy lecturers in using EIS were found to be key factors that significantly influence the utilisation of EIS.

Keywords

Electronic information sources, pharmacy lecturers, Nigeria, electronic resources usage, e-resources

Introduction

The mandate of pharmacy lecturers is to produce pharmacists who are responsible and useful citizens worthy of character and knowledge, and competent in the areas of hospital, community, administrative, industrial, academic and applied pharmacy practice. These lecturers by the nature of their professional callings require a lot of quality, current and up-to-date information found in books and journals in order to accomplish the above objectives. The libraries have critical roles to play in providing access to these varieties of information sources. To this end, Udoh, Ukpak and Iwot (2011) assert that the role of pharmacy libraries is to acquire and organise its collections to meet the needs of pharmacy scholars. However, the information needs of most faculty lecturers in universities in Nigeria are not adequately met by their supporting libraries due to lack of current print pharmacy journals in these libraries.

In this era of globalisation, information access is not limited to the libraries alone. The need to use EIS as research tools to supplement the print-based resources found in pharmacy libraries becomes imperative (Egberongbe, 2011). Angello (2010) and Okiki and Asiru (2011) defined EIS as any library or information resources in a digital format such as diskettes, CD-ROMs, DVDs, online public access catalogues (OPAC), bibliographic and full-text databases, electronic journals, scholarly databases, information gateways, e-books, Internet, as well as other resources accessible via the computer and the Internet. EIS provides access to information in tertiary institutions worldwide and pharmacy lecturers are exploiting these resources for their academic and research pursuits.

Due to the great importance of EIS to pharmacy lecturers, federal, states, and private universities (South-South universities) located within the six states (Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers) that make up South-South geopolitical zone in Nigeria are making frantic efforts to provide access to EIS for the use of their faculties and students. Also, improved access to Internet resources has provided unrestricted access to the use of electronic resources by pharmacy lecturers on the Internet. Based on the improved access to EIS, its use to bridge the information gap currently besetting them became necessary. However, the rate of utilisation of EIS among these lecturers is low due to several factors (Rehman and Ramzy, 2004, and Bashorun, Isah and Adisa, 2011). Electronic information resources are new information technologies quite different from the paper version that most lecturers are used to and there is usually user's resistance to use new information technology. Davis (1993) posits that lack of acceptance has long been an impediment to the success of new information systems, and certain factors influence users whether to use such information systems or not. Such factors include awareness, academic status, gender, computer and Internet literacy, competence and more. This study seeks to find out which of these factors will significantly influence the use of EIS by pharmacy lecturers in South-South universities in order to render adequate EIS services in the universities.

Statement of the Problem

Efforts by Nigerian university libraries to provide current and up-to-date e-print pharmacy journals have been on the increase. The proliferation of ICT facilities like the computers, laptops, mobile phones, and Internet modems have also enhanced access of pharmacy lecturers in south-south universities in Nigeria to personally seek for information on the Web. Despite the availability of these resources, utilisation of EIS by this group of users is still low. For increased utilisation of these e-resources, certain factors such as awareness of EIS, academic qualification, gender status, computer and Internet literacy skills, and competence of pharmacy lecturers in using EIS may influence the effective utilisation of these resources which this study seeks to find out.

Objectives of the Study

The general objective of this study is to find out those factors that influence the utilisation of EIS by pharmacy lecturers in advancing pharmacy practice in South-South universities in Nigeria. Specific objectives are to:

- establish the influence of awareness of EIS by these lecturers on the utilisation of the resources;
- determine whether academic and gender status of the lecturers influence their usage of EIS;
- find out if their computer and Internet literacy skills influence their use of EIS, and
- ascertain if their competence in using EIS influences their utilisation of the resources.

The findings of this study would help to identify the strengths and weaknesses of the lecturers in the use of EIS in order to provide interventions that will promote maximum use of EIS.

Research Hypotheses

The research tested the following null hypotheses:

Ho1. There is no significant influence of awareness on the use of electronic information sources by pharmacy lecturers in South-South universities in Nigeria.

Ho2. There is no significant difference in the level of awareness of electronic information sources by pharmacy lecturers across the five South-South universities in Nigeria.

H03: There is no significant difference in the awareness of the various electronic information sources used by pharmacy lecturers across the five South-South universities in Nigeria.

Ho4: Academic status will not significantly influence the use of electronic information sources by pharmacy lecturers in South-South universities in Nigeria.

Ho5. There is no significant influence of gender on the use of electronic information sources

by pharmacy lecturers in South-South universities in Nigeria.

Ho6. There is no significant influence of both computer and Internet literacy skills on the use of electronic information sources by pharmacy lecturers in South-South Nigeria universities.

Ho7. There is no significant influence of competence of pharmacy lecturers on the use of electronic information sources in South-South universities in Nigeria.

Literature Review

Awareness is a critical factor in using any information service or resources. The use of library services can be affected by users' awareness and relevance of the service. Supporting the above assertion, Rehman and Ramzy (2004) reported that it is a widely held view that low awareness and poor skills are among the primary reasons for underutilisation of electronic resources. Their investigation at Kuwait University revealed that time constraints, lack of awareness, and low skill level were the constraints for utilising electronic resources by health faculty in the university. In the medical field, Asemi and Riyahiniya (2007) study of medical sciences awareness and use of digital resources in Isfahan University, Iran concluded that when a user is aware of one resource, it leads to more use of that resources. Kumar and Kumar (2008) also conducted their study on awareness, and their findings indicate that students and faculty are aware and use electronic information in support of their study and teaching. In Australia, Hepu (2010) study revealed that the usage of electronic resources is common in higher education in Australia, and its use depends on the user and the purposes for using them.

Awareness and the quality of the e-resources are two important factors for the effective and efficient utilisation of electronic resources. Recent investigation by Shukle and Mishra (2011) revealed that all research scholars at Banaras Hindu University Institute of Technology (BHU IT), India were aware of e-resources and they all use it with 64% of them preferring it to print for their research work. Furthermore, Tyagi (2011) found that awareness of the availability of online journals at IIT Roorkee Library was highly satisfactory and the journals were mostly used for research. Similarly, Tyagi (2012) survey also showed that the level of awareness among scientists and pharmacopoeia associates in India was highly satisfactory, and the online journals were mostly used for research and current and comprehensive information. In Tanzania, Angello (2010) investigation concluded that livestock researchers who are information literate are aware of a wide range of e-resources and they are able to search and effectively use the e-resources. However, Omotayo (2010) opined that awareness of electronic resources is not a proof of use. In this regard, Renwick (2005) survey revealed that faculty members had high awareness of the electronic resources but usage was low. Bashorun, Isah and Adisa (2011) reported that the use of EIS by academic staff of the University of Ilorin was low, due to lack of time, awareness and searching skills. From the above analysis, awareness is a critical factor for EIS usage. Academic status is another key factor that may influence EIS utilisation. Shahmohammadi (2012) study reported that on-line electronic journals used at the Islamic Azad University Karaj Branch by its faculty showed that there was no statistical difference in the application due to years of experience or academic qualification of the academic staff. Similarly, Tahira, Alias and Ameen (2011) reported that there were no significant differences in terms of the importance and use of subscribed and open access electronic sources by respondent's designations at Punjab University, Pakistan while Dangani and Mohammed (2009) discovered that there was no significant relationship between academic qualification of the academics and their ICT literacy level in Ahmadu Bello University, Zaria, Nigeria.

The use of EIS can also be influenced by gender status of users, and several researches have been done in this area. At Daystar University, Karimi (2010) study indicated that gender was not significant in academic performances of students in the university, and Manda (2008) study of gender analysis in Tanzania found that gender did not influence sexual reproductive health information access and use. Bakkabulindi (2011) investigated individual characteristics on ICT use in Makerere University and findings indicate fair levels of use of ICT, and gender was not significant in the use of ICT. On the

contrary, Nsibirano (2009) reviewed literature on gender differentials in ICT in different parts of the world, and findings revealed that there is a clear gender differential in access and use of ICT. In information seeking by men and women in Slovakia, Steinerova and Susol (2007) findings indicated that men prefer individual information seeking while women seek collaborative information use. Women declared less experience in the use of electronic resources and publishing in Slovakia. Also, Zhang, Ye and Liu (2011) survey of electronic resources at seven universities in China showed that men users surpassed female ones slightly. In Nigeria, Bassi and Camble (2011) investigated gender differences in the use of electronic resources in university libraries in Adamawa State, Nigeria and the study revealed that there is a statistical difference between male and female students with mean value of male greater than female. Moghaddam (2010) reported a world view of IT use and found that there was gender gap to access and use of IT among all nations without exception. The above studies have shown that the influence of gender on EIS utilization varies.

The level of computer literacy varies with different groups of information users and this has implications for EIS utilisation. Angello (2010) study revealed that lack of information literacy skills among most of livestock researchers in Tanzania was found to limit their access and use of e-resources. Conversely, Renwick (2005) survey found 82% computer literacy level of faculty in medical sciences at the University of West Indies. In another study, Ansari and Zuberi (2010) study of electronic digital library resources usage among academics at the University of Karachi revealed that majority of the study population had computer skills and were able to use computer independently. They use EIS for research and for preparing lectures, but lack of knowledge and lack of facilities of e-resources were main reasons for not using electronic resources. This goes to show that more than computer skills will be needed to effectively use electronic information sources. To effectively provide and implement electronic information services in the pharmaceutical library system, the library staff has to be knowledgeable in the use of computer and related electronic systems. This prompted Singh and Sharma (2010) study which concluded that it is essential to recruit library staff and professionals having up-to-date knowledge and skills in computer operations to manage the services.

The role of users' competence is another factor that influences EIS usage. Competence, confidence and self-efficacy are interrelated concepts used in this study. Hong et al. (2002) investigation found that users who have higher levels of confidence in using computers in general are more likely to find digital libraries easy to use, while knowledge of search domain was also found to have a positive effect on perceived ease of use. In India, Tyagi (2011) investigation revealed that self-perceived ability to use the computer for electronic information sources by Pharmacopoeial Laboratory for Indian Medicine scientists was quite high. On the other hand, Obaje and Camble (2008) study concluded that majority of staff and students using CD ROM facilities of the University of Jos Library did not have enough confidence in using the database and were not very effective in the choice of search terms. Abdullahi and Haruna (2008) also found that lack of basic knowledge of ICT was the second major constraint in using ICT for information service delivery in three University libraries in Adamawa State, Nigeria. Dangani and Mohammed (2009) found that majority of academics at Ahmadu Bello University, Zaria, Nigeria were not fluent in database. This means that they may not be able to interrogate online databases to perform searches. Adegbore (2011) review of recent literature of electronic resources use by University faculty showed that e-resources had been widely and rapidly accepted, accessed and ably used by academics for both teaching and research, among other uses. They were satisfied with their use and continued to use them. Despite these results of acceptance of EIS usage, users' behaviour differs from one profession to another and from one country to the other. Therefore, the need to investigate the influence of these factors becomes imperative.

Methodology

The survey research design method was adopted in this study. A survey questionnaire titled "Awareness and utilisation of Internet and EIS by pharmacy lecturers in South-South Universities in Nigeria" was the instrument used to gather data from faculty members in pharmacy departments in five universities. The questionnaire consisted of 30

questions in 4 sections eliciting information on respondents' demographic data, computer and Internet literacy, awareness and usage of EIS and training needs. The questionnaire was pretested and validated. The universities under study –University of Benin (UNIBEN), University of Port Harcourt (UNIPORT), University of Uyo (UNIUYO), Niger Delta University (NDU) and Igbinedion University Okada (IUO) – were chosen because their pharmacy programmes have been accredited by the National Universities Commission (NUC), the regulatory body responsible for accreditation of academic programmes in Nigerian universities. The number of pharmacy lecturers in the five universities as at 2011/2012 academic session was 201. Simple random sampling was used to select a sample of 160 (80%) respondents across the universities and the questionnaire was administered to them, out of which 103 (64.3%) usable response was obtained. Data collected were tabulated in a frequency table. Percentage, chi square and correlation statistics were used to analyse the data using SPSS version 16.

Results and Discussion –Demographic Data

Table 1: Demographic profile of respondents

Demographic variables	Frequency	%
Designation		
Professor	6	5.8
Asso. Professor	9	8.7
Senior lecturer	18	17.5
Lecturer I	17	16.5
Lecturer II	29	28.2
Asst. Lecturer	20	19.4
Graduate Asst.	4	3.9
Gender status		
Male	72	69.9
Female	31	30.1
Academic qualification		
PhD	32	31.1
Postgraduate diploma/master	65	63.1
Bachelors	6	5.8
Awareness level		
High	22	21.4
Average	50	48.5
Low	31	30.1
Usage level		
High	58	56.3
Average	40	38.8
Low	5	4.9

Demographic data in table 1 revealed that all the various cadres of pharmacy lecturers from professor 6 (5.8%) to graduate assistant 4 (3.9%) were covered in the study. Majority of the respondents were within the range of senior lecturer 18 (17.5%) and assistant lecturer 20 (19.4%), with the highest being lecturer II 29 (28.2%) and they were mostly male (69.9%). Data on academic qualification showed that majority (63.1%) had postgraduate diploma/master qualifications and were followed by those with PhD (31.1%) while 15 (14.5%) were in the professorial cadre. This goes to show that pharmacy lecturers in South-South universities in Nigeria are qualified to teach and practice.

Influence of Awareness on Electronic Information Sources (EIS) Usage

Awareness is not a guarantee that EIS can be used (Omotayo, 2010). However, there is a general belief that when information users are aware of the existence of an information technology, the tendency or possibility to use that information system will be high. Result presented in table 1 revealed that pharmacy lecturers had varying levels of awareness and usage levels of EIS. However, majority of the lecturers possess average level of awareness and high level of EIS usage.

Test of Null hypothesis 1: There is no significant influence of awareness on EIS usage.

Chi square test of independence result presented in table 2 indicates that the calculated X^2 value of 36.089 was obtained and is greater than table value of 5.99 at alpha 0.05. The null hypothesis is therefore rejected and the alternative upheld that awareness of EIS influences the actual usage of the resources. This result is similar to Hepu (2010) findings that awareness is an important factor influencing effective and efficient utilisation of EIS in higher education in Australia.

Table 2: Effect of awareness on EIS usage

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.089[a]	2	.000
Likelihood Ratio	38.805	2	.000
N of Valid Cases	206		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.00.

Test of Null hypothesis 2: There was no significant difference in the level of awareness across the five universities.

Table 3: Awareness of EIS across the five universities

Universities	High	Average	Low	Total
UNIPORT	3	7	8	18
UNIBEN	5	20	4	29
UNIUYO	9	13	8	30
NDU	4	5	6	15
IUO	1	5	5	11
Total	**22**	**50**	**31**	**103**

Since awareness influenced EIS usage, data in table 3 was subjected to further analysis. Result in table 4 revealed that there is no significant difference in the level of awareness of EIS across the five universities as X^2 test of significance result was 11.439 against table value of 15.5. The null hypothesis is not rejected. This result implies that awareness level of EIS in the five universities is the same, and that their work places did not significantly influence their level of awareness.

Table 4: Chi square result of awareness level across the five universities

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.439[a]	8	.178
Likelihood Ratio	11.719	8	.164
N of Valid Cases	103		

a. 5 cells (33.3%) have expected count less than 5. The

Since earlier result in table 1 indicates average level of awareness of EIS, there is need for libraries in these universities to develop strategies to create more awareness of EIS resources beneficial to the lecturers.

A further analysis of the awareness of six major e-resources used by pharmacy lecturers in table 5, indicate that over eighty seven percent, of them were aware of the World Wide Web (WWW) 90(87.3%) and E-journal (EJ) 87(84.4%) while 68(66%) were aware of online databases (OD). This result is encouraging as it goes to show that the lecturers are in tune with current wave of EIS blowing across universities. The use of clinical information service should be encouraged due to its low result.

Test of Null hypothesis 3: There is no significant difference in the awareness of the various electronic information sources used by pharmacy lecturers across the five universities.

Table 5: Awareness of EIS by respondents across the five universities

VAR00001 * VAR00002 Cross tabulation

Count		VAR00002						
		CD	CIS	EB	EJ	OD	WWW	Total
VAR00001	IOU	5	3	4	11	10	10	43
	NDU	6	2	10	14	10	11	53
	UNIBEN	22	11	19	27	23	26	128
	UNIP0RT	5	2	8	12	7	15	49
	UYO	11	7	15	23	18	28	102
Total		49	25	56	87	68	90	375

The result of chi square test of significant across the five universities revealed that there was no significant difference in the awareness of the various EIS by pharmacy lecturers as calculated X^2 value of 10.04 was obtained against table value of 36.42, the null hypothesis is not rejected implying that the lecturers have equal knowledge of the various EIS that they use. Overall, there is no significant difference in awareness status of EIS of pharmacy lecturers in government and privately owned universities in South-South Nigeria.

Table 5: Chi square result of awareness of EIS across the universities

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.041[a]	20	.967
Likelihood Ratio	10.122	20	.966
N of Valid Cases	375		

a. 3 cells (10.0%) have expected count less than 5. The minimum expected count is 2.87.

Effect of Academic Qualifications on Usage of EIS by Pharmacy Lecturers

Academic qualifications of information users can influence their EIS usage. Result of the levels of EIS usage as per academic qualifications presented in table 6 revealed that most of the lecturers 53 (51.4%) are expert users of EIS, followed by those with average level 42 (40.7%) of usage and 8 (7.2%) low users.

Table 6: Academic qualification and levels of EIS usage

VAR00001 * VAR00002 Cross-tabulation

Count		VAR00002			
		Averag	Expert	Low	Total
VAR00001	BSc	2	4	1	7
	PGdip/ master	28	30	6	64
	PhD	12	19	1	32
Total		42	53	8	103

Test of Null hypothesis 4: There is no significant influence of academic status of pharmacy lecturers on their use of electronic information sources.

On the influence of academic qualifications on actual usage of EIS, data in table 7 was analysed.

Table 7: Influence of Academic qualifications and usage of EIS

VAR00001 * VAR00002 Cross tabulation

Count		VAR00002			
		Average	High	Low	Total
VAR00001	ACADEMIC QUALIFICATION	42	53	8	103
	USAGE LEVEL	40	58	5	103
Total		82	111	13	206

The result of X^2 test of independence in table 8 shows a value of .966 against table value of 5.99. So the null hypothesis is therefore not rejected meaning that academic status has no influence on EIS usage. All pharmacy lecturers irrespective of their academic qualification use EIS because they need it to perform various tasks. This result agreed with Shahmohammadi (2012) that on-line electronic journals used at the Islamic Azad University Karaj branch by its faculty showed no statistical difference in the application due to academic qualification of the academic staff.

Table 8: Influence of academic status on EIS usage

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.966[a]	2	.617
Likelihood Ratio	.973	2	.615
N of Valid Cases	206		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.50.

Influence of Gender Status on EIS Usage

There has been varying impact of gender on EIS usage among different users groups. The use of EIS by gender was tabulated, and results in table 9 revealed that both sexes are expert users 54 (52.4%) of EIS while 42 (40.7) are moderate users. While 38 (36.8%) male lecturers are expert users of EIS, 16 (15.5%) female are also expert users. Therefore, the female are not lacking behind their male counterpart as there is no significant difference between male and female levels of EIS usage.

Table 9: Gender status and levels of EIS usage

Gender status	Expert	Average	Low	Total
Female	16	13	2	31
Male	38	29	5	72
Total	54	42	7	103

Test of Null hypothesis 5: There is no significant influence of gender status of pharmacy lecturers on their use of electronic information sources.

Data in table 10 was analysed to determine the influence of gender on EIS usage.

Table 10: EIS usage and gender levels

VAR00001 * VAR00002 Cross-tabulation

Count					
		VAR00002			Total
		Average	Expert	Low	
VAR00001	Gender	42	54	7	103
	Usage	40	58	5	103
Total		82	112	12	206

Result of X^2 test of independence table 11 shows it was not significant as the calculated X^2 value obtained was 0.525 against table value of 5.99. The null hypothesis is not rejected, meaning that EIS usage is not influenced by gender status of the lecturers. Similar findings by Bakkabulindi (2011) indicated no significant gender difference in ICT use in Makerere University in Uganda. However, Bassi and Camble (2011) found gender differences in the use of EIS in university libraries in Adamawa State, Nigeria as the study revealed statistical difference between male and female students. These differences may be due to cultural background of users and their level of accessibility to ICT.

Table 11: Influence of gender on EIS usage

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.525[a]	2	.769
Likelihood Ratio	.527	2	.769
N of Valid Cases	206		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.00.

Influence of Computer and Internet Literacy on Electronic Information Sources Usage

Computer and Internet knowledge is necessary to use EIS. Data in table 12 indicate that most of the lecturers possess average computer and Internet literacy skills. This result has great implication for EIS utilisation. To test if computer literacy levels have any significant influence on the use of EIS, data in table 12 was subject to correlation analysis.

Table 12: Levels of computer and Internet literacy skills and EIS usage

Variables	High	Average	Low	Total
Level of computer literacy	27 (26.2)	72 (70.0)	4 (3.8)	103 (100%)
Level of Internet literacy	16 (15.6)	85 (82.5)	2 (1.9)	103 (100%)
Level of EIS usage	58 (56.3)	40 (38.8)	5 (4.9)	103 (100%)

Test of Null hypothesis 6: There is no significant influence of computer and Internet literacy of pharmacy lecturers on their use of electronic information sources.

Table 13: Influence of computer and Internet literacy skills and EIS usage

Correlations

		Level_of_EIS_Usage	Level_of_computer literacy	Level_of_internet_literacy
Level_of_EIS_usage	Pearson Correlation	1	.499	.335
	Sig. (2-tailed)		.668	.783
	N	3	3	3
Level_of_computer_literacy	Pearson Correlation	.499	1	.984
	Sig. (2-tailed)	.668		.115
	N	3	3	3
Level_of_internet_literacy	Pearson Correlation	.335	.984	1
	Sig. (2-tailed)	.783	.115	
	N	3	3	3

From table 13 above, there is a positive correlation of level of computer literacy (0.499) and level of Internet literacy (0.335) with the level of EIS usage. However, in terms of strength, the level of computer literacy (approximately, 0.5) is moderately correlated to the level of EIS usage while the level of Internet literacy (0.335) is weakly correlated to the level of EIS usage. This result implies that computer and Internet literacy has both individual and combined influence on the use of EIS with computer literacy more. This result is not unlikely to be so, as most EIS are available on the Internet and computer is required to use them. Not all the lecturers are computer and Internet compliant. This deficiency needs to be improved upon. Computer and Internet literacy skills have been problems of effective utilisation of ICT in developing countries including Nigeria. Based on the current level of EIS usage, there is need to train pharmacy lecturers in South-South universities in Nigeria on computer and Internet literacy skills to adequately equip them to use EIS effectively and maximally. Mastery of computer and Internet use enhances EIS usage. Pharmacy lecturers in these universities must therefore update their computer and Internet literacy skills.

Level of Competency in Using Electronic Information Sources

Competence is the ability to do something well. Competence is different from skills possessed. In this context, competence is the ability of pharmacy lecturers to apply their skills to use EIS adequately. The lecturers were asked to rate their levels of competence in using EIS. Result in table 14 indicates that majority of pharmacy lecturers possess moderate level of competence in using EIS.

Table 14: Effect of competence on electronic information sources usage

Variables	High	Average	Low	Total
Competence levels	15	82	6	103
Usage levels	58	40	5	103

Though this result though is encouraging; there is room for improvement if maximum result is required. Data in table 14 was further analysed to determine the influence of competence on EIS usage.

Test of Null hypothesis 7: There is no significant influence of competency of lecturers on EIS usage.

Result of calculated X^2 test of independence obtained in Table 15 was 39.8 against table value of 3.84 thus rejecting the null hypothesis and accepting the alternative that competence of the lecturers influences their usage of EIS. This area of deficiency needs to be improved upon also by providing the lecturers with information literacy training to improve their competency skill in using these resources.

Table 15: Influence of competence on EIS usage

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.879[a]	2	.000
Likelihood Ratio	41.895	2	.000
N of Valid Cases	206		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.50.

The level of utilisation of EIS by pharmacy lecturers in South-South universities in Nigeria is encouraging. It has been observed that the lecturers are determined to use these resources to meet their information needs. Their level of expertise and usage is not quite different from what obtains in other developing countries where Internet and computer literacy is low. Despite these drawbacks, usage of EIS across the universities is high irrespective of their academic qualifications and gender status. The areas that need to be tapped are the use of electronic databases and electronic portals in the various subject areas of pharmacy practice. This will go a long way to provide current and qualitative information sources for this group of users. Identified problem of computer and Internet literacy skills is common to all the lecturers, and therefore common solution can be proffered towards solving these problems.

Conclusion

Based on the results obtained in this study, it can be concluded that academic qualifications and gender status have no significant influence on the utilisation of EIS. However, awareness, computer and Internet literacy skills influence pharmacy lecturers' utilization of EIS across the South-South universities in Nigeria. The lecturers possess average levels of awareness of EIS, computer and Internet literacy skills in utilising EIS which is encouraging but there is need to strengthen their computer and Internet literacy skills in order to increase their level of awareness and competency to use EIS resources.

Recommendations

Librarians in these universities should provide EIS in pharmacy that are relevant to their users' needs for the faculty members. Adequate computer and Internet literacy skills on the effective utilisation of EIS should be organised for the lecturers to enable them use the resources maximally, as similar recommendation was given by Isabella and Esmail (2012) that awareness and training programmes should be given to academic community of Pharmacy College in Chennai City, to optimally utilise e-resources. Faculty members should improve on their level of competence by constantly using the e-sources.

References

Abdullahi, Z.M. & Haruna, I. 2008. Utilization of information and communication technology for information service delivery in university libraries in Adamawa State. *The Information Technologists*, 5(2), 24 – 30.

Adegbore, A.M. 2011. University faculty use of electronic resources: a review of recent literature. *PNLA Quarterly*, 75(4), 1 – 7.

Adesina, A.A. & Ayo, C.K. 2010. An empirical investigation of the level of users' acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce*, 15(1), 1 – 13.

Angello, C. 2010. The awareness and use of electronic information sources among livestock researchers in Tanzania. *Journal of Information Literacy*, 4(2), 6 – 22.

Ansari, M.N. & Zuberi, B.A. 2010. Use of electronic resources among academics at the University of Karachi. *Library Philosophy and Practice, June (e-journal)*. Paper 385. http://digtalcommons.unl.edu/libphilprac/385. Accessed 24 December 2012.

Asemi, A. 2007. Awareness and use of digital resources in the library of Isfahan University of Medical Sciences, Iran. *The Electronic Library*, 25(3), 316 – 327.

Bakkabulindi, F.E. 2011. Individual characteristics as correlates of use of ICT in Makerere University. *International Journal of Computing and ICT Research*, 5(2), 38 – 45.

Bashorun, M.T., Isah, A. & Adisa, M.Y. 2011. User perception of electronic resources in the University of Ilorin, Nigeria (UNILORIN). *Journal of Emerging Trends in Computing and Information Science*, 2(11), 554 – 562.

Bassi, M.D. & Camble, E. 2011. Gender differences in use of electronic resources in university libraries of Adamawa State, Nigeria. *Library Philosophy and Practice*: http://www/webpages.uidaho.edu/-mbolin/bassi-camble.htm. Accessed 8 August 2012.

Dangani, U.B. & Mohammed, Z. 2009. Information and communication technology literacy among academics in Ahmadu Bello University, Zaria. *Samaru J. of Information Studies*, 9(2), 15–22.

Davis, F.D. 1993. User acceptance of information technology: system characteristics, user perceptions and behavioural impacts. *Int. J. Man-Machine Studies*, 38, 475 – 487.

Egberongbe, H.S. 2011. The use and impact of electronic resources at the University of Lagos. *Library Philosophy and Practice*. mhtml:file://C:/users/4r/Desktop/Awareness 1.mht. Accessed 19 March 2012.

Garuba, A.R. & Ogunrombi, S.A. 2009. The role of medical libraries in the provision of e-resources in developing countries. *Journal of Educational Research and Policies*, 4(1), 42 – 50

Hepu, D. 2010. Emerging patterns and trends in utilizing electronic resources in a higher education environment: an empirical analysis. *New Library World*, 111(3/4), 87 – 103.

Isabella, M. & Email, S.M. 2012. Usage of electronic information resources among the academic community of Pharmacy College in Chennai City. *Journal of Advances in Library and Information Science*, 1(1), 26 – 30.

Karimi, F. 2010. Differential levels of students-internal predictors of academic success in Daystar University. *Kenya Study Review*, 1(2), 73 – 91.

Kumar, G.T. & Kumar, B.T.S. 2008. Use of electronic information sources by academic community: a comparative study. 6th International CALIBER -2008, University of Allahabad, February 28 - 29 & March 1, 2008. INFLIBNET Centre: Ahmedbad.

Manda, P. 2008. Gender analysis of sexual and reproductive health information access and use: a study of university student communities in Tanzania. *University of Dar Es Salaam Library Journal*, 10(1&2). http://library. udsm.ac.tz/googlescholar/UDSM_Lib... Accessed 24 December 2012.

Moghaddam, G.G. 2010. Information technology and gender gap: towards a global view. *Electronic Library*, 28(5) 722 – 733.

Nnadozie, C.O. & Nnadozie, C.D. 2008. The information needs of faculty members in a private university: a self-study. *Library Philosophy and Practice (July)*. mhtml:file://C://Users\4r\Desktop\medi 5.mht. p. 1 - 5. Accessed 2 February 2012.

Nsibirano, R. 2009. "Him and Her" – gender differentials in ICT uptake: a critical literature review and research agenda. *International Journal of Education and Development Using ICT*, 5(5), 1 – 8.

Obaje, M.A. & Camble, E. 2008. Use of CD-ROM databases by staff and students in the University of Jos library. *The Information Technologists*, 5(1), 1 – 18.

Okiki, O.C. & Asiru, S.M. 2011. Use of electronic information sources by postgraduate students in Nigeria: influencing factors. *Library Philosophy and Practice 2011*. mhtml:file: //C://Users\4r\Desktop\EIS 3.mht. Accessed 4 January 2012.

Omotayo, B.O. 2010. Access, use, and attitudes of academics towards electronic journals: a case study of Obafemi Awolowo University, Ile-Ife. *Library Philosophy and Practice 2010*. (March)

Rehman, S. & Ramzy, V. 2004. Awareness and use of electronic information resources at the health sciences center of Kuwait University. *Library Review*, 53(3), 150 – 156.

Renwick, S. 2005. Knowledge and use of electronic information resources by medical sciences faculty at The University of West Indies. *Journal of Medical Library Association,* 93(1), 21–31.

Shahmohammadi, N. 2012. On-line electronic journals use among University academic members of Islamic Azad University, Karaj branch. *Asian J. of Natural and Applied Sciences*, 1(1), 26 – 32.

Shukla, P. & Mishra, R. 2011. Use of e-resources by research scholars of Institute of Technology, Banras Hindu University, India. *International Refereed Research Journal*, 2(2), 184 – 194.

Singh, R. & Sharma, R. 2010. Relevance of library and information resource centre in pharmaceutical research development in context of the new digital era. *International Journal of Library and Information Science*, 2(3), 35 – 40.

Steinerova, J. & Susol, J. 2007. Users' information behaviour – a gender perspective. *Information Research*, 12(3), 1 - 16.

Tahira, M., Alias, R.A., & Ameen, K. 2011. Seeking online information sources among science faculties of developing countries. *Library Philosophy and Practice (e-journal)*. Paper 661. http://digtalcommons.unl.edu/libphilprac/661. Accessed 24 December 2012.

Tenopir, C. 2003. Use and users of electronic library resources: an overview and analysis of recent research studies. Washington, D.C.: Council on Library and Information Resources.

Tyagi, S. 2011. Usage of electronic information sources and services by users at Mahatma Ghandi Central Library IIT Roorkee: a case study. *International Journal of Library Science*, 4(11). http://ceser.in/ceserp/index.php.ijls/article/view/1127. Accessed 20 December 2011.

Tyagi, S. 2011. Scientists' perception of use of electronic information resources: a case study of Pharmacopoeial Laboratory for Indian Medicine. Library Philosophy and Practice. http://unlib.unl.edu/LPP/tyagi3.pdf. Accessed 24 December 2012.

Tyagi, S. 2012. Use of electronic information resources at the Indian Pharmacopoeia Commission. *DESIDOC Journal of Library and Information Tech*., 32(2), 171 – 178.

Udoh, U.O., Ukpak, A. A. & Iwot, M.J. 2011. Utilization patterns of information sources in pharmacy libraries of University of Uyo. *Nigerian Journal of Pharmaceutical and Applied Science Research*, 1(1), 1 – 11.

Zhang, L., Ye, P. & Liu, Q. 2011. A survey of the use of electronic resources at seven universities in Wuhan, China. Program: *Electronic Library and Information*, 45(1), 67 – 77.

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