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Use of Electronic Information Sources by Postgraduate Students in Nigeria: Influencing Factors

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Introduction

Information is the pivot of which the survival of any society rests. It remains the major ingredient in taking decision; and assist in reducing the degree of uncertainty. Information and its use are as old as man. Indeed, without information there can't be communication. The technology embrace has led to the proliferation of electronically available information resources. These resources include CD – ROM databases, electronic mails, Online Public Access Catalogues (OPAC) and internet browsing (Oduwole et al 2003). The Internet which is the most prominent of this source has made possible access to electronic books and journals; various databases and search engines. All these resources constitute Electronic Information Sources.

An area that has been affected by the Information technology embrace is education. It has affected the way education is delivered and research conducted especially in the Universities .Agboola (2003) while discussing the ways in which Information and Communication Technology (ICT) has affected the education sector writes that "using ICT, it is possible for a researcher in his office to access the full text digital contents of local and distant libraries and databases using computers and the internet. Students as well have access to this opportunity, though majority access through the commercial cybercafés (Oduwole 2004).

The opportunity brought about by electronic information sources has in recent years exerted pressure on the educational intuitions and their libraries.

The pressure on the institutions is the provision of the necessary infrastructure and the actual access to these sources. The pressure on the library and information centres is in the sourcing, acquisition and repackaging of these sources; as well as the provision of necessary guidance to end users. Fatoki (2004) submits that "academic libraries work together with other members of their institutional communities to participate, support, and achieve the educational mission of their institutions by teaching core competencies of information literacy – abilities involved in identifying need, accessing needed information, evaluating, managing and applying information, and understanding the legal, social, and ethical aspects of information use.

Libraries all over the world make available a wide variety of electronic information sources (EIS) for use by the undergraduates, postgraduates, researchers and staff in their respective institutions. These EIS form an essential part of the reference services provided by the academic libraries. The cost incurred in acquiring and maintaining both the material and human resources required to provide electronic information sources are enormous. It is in view of this, that it is necessary to ensure maximum utilization of these sources. Hence, the need to appraise the factors contributing to the effective use or otherwise of the sources. In view of the foregoing, the paper looks into the factors influencing the effective use of electronic information sources among postgraduate students in Nigerian Universities.

Objectives of the Study

This study aims to achieve the following objectives:

- To determine the level of Postgraduate student's frequency of access to Electronic Information Sources
- To verify what encourage the use of Electronic Information Sources
- To ascertain level of awareness of postgraduate students of the availability of Electronic Information Sources in their institution libraries
- To identify the challenges faced in the use of Electronic Information Sources

Research Questions

- What is the postgraduate student's frequency of access to Electronic Information Sources?
- What encourages the use of Electronic Information Sources?
- What is the level of awareness of postgraduate students on the availability of EIS in their institution libraries?
- What are the challenges faced in the utilization of Electronic Information Sources?

Scope of the Study

This study examined the factors that influence the use of electronic information sources among postgraduate students. The study covered six Universities in the South West, Nigeria namely; University of Ibadan, University of Lagos, Olabisi Onabanjo University, Ogun State; Federal University of Technology, Akure; University of Agriculture Abeokuta and Lagos State University .

A Review of the Literature

Electronic Information Sources are products of information and communication technologies and they have been found relevant to the learning

and research process in Universities. For example Langlois (1998) submits that:

New information technologies and particular the internet, is drastically transforming access to information is changing the learning and research process, how we search, discover, teach and learn. Never has an invention had such an impact on education

Odunewu (2004) posits that the most prominent from ICT today is the internet and that it provides the largest reservoir of vital information in all kinds of disciplines all over the world. Hence, its universal acceptability in the world of research is synonymous with university education. Omogbemi et al (2004) writing on the benefits of the internet submits that "students offering correspondence course all over Africa have the benefit of the use of e- mail and World Wide Web to obtain advice and reading material from their tutors. It is now a feasible option to embark on postgraduate studies online. Other studies (Oduwole et al 2003; Jagboro, 2003; and Adomi et al (2003) have also high use of electronic information resources among Nigerian Students

Despite the availability of these resources and their benefits to university education, their effective uses in Africa are being hampered by varying factors. Studies have revealed that these factors include poor funding of universities, high cost of IT equipment, high rate of foreign exchange, poor telecommunication infrastructures, and so on (Fatoki, 2004; Adeoti- Adekeye, 1997). Attitude towards a particular phenomenon can enhance or mar human approach to such phenomenon. Positive attitude are widely recognized as a necessary condition for effective use and integration of Information Technology in teaching and learning (Christensen, 1996). Attitudes have also been found to affect perceptions and hence rates of adoption and extent of utilization of Information Technology, (Agarwal and Prasad 1997; Payo 2000).

Age is a variable which have been found to correlate with computers and use of electronic resources. Younger generations are brought up with computers. For example Laguna and Babcock (1997) found that there were significant age differences on the computer task, as measured by older adults making few correct decisions and taking longer time to make their decisions than younger adult. Rabinovitch's (1995) investigation of electronic information resources use patterns of students of a Northern Israel College found age to be a factor. Avigdori (2000) and Hammerschalg and Izhaki (1997) confirm Rabinovitch's submission. However, Laerum (2001) found no correlation in terms of age or gender.

Gender is a relevant factor in examining use of electronic sources. Sacks (1993/94), Dyck & Smither (1994), Koohang (1986), found that neither age nor gender was seriously correlated to computer anxiety, Computer confidence or liking but that computer experience was. However, sex seems to affect electronic information sources use. Waldman (2003) submits that males seem to enjoy browsing on the internet for enjoyment while female tend to only use it for work-related purpose. Ford et al (2001) found that females tended to experience more difficulty finding information online, to feel competent and comfortable using the internet, to use the internet less frequently than males and to make use of a less varied set of internet application, Majid (1999) though found a similar result in studying faculty members; while makes tended to have computing skills than females, age and year of obtaining highest educational qualifications were also important factors in establishing computers skills.

Sample and Sampling Procedure

The stratified disproportionate random sampling technique was adopted for the study. The target populations were stratified institutionally as follows: Five hundred (500) respondents were randomly selected each from University of Ibadan, (U.I.) and University of Lagos while one thousand five hundred copies of questionnaire were distributed equally at 250 each among other four Universities.

Making a total number of Two thousand, five hundred respondents.

Data Collection Instrument

The researchers visited each institution and information were gathered through the use of questionnaire.

Data Analysis and Interpretation of Finding

The 2,500 copies of questionnaire were distributed randomly to postgraduate students out of which a total of 2,187 respondents completed and returned them.

Data analysis

Quantitative data were analysed using descriptive Statistics from the Statistical Package for the Social Sciences (SPSS), release 11.0 for windows 2000. Inferential statistics were not employed due to the study's non- probability sampling technique. There sets of frequencies were analysed:

- Frequency of response to individual questions;
- Frequency of multiple responses'
- Frequency of responses from individual universities

Results were presented using figures, and tables

Table 1: Status of Respondents

INSTITUTIONS	SEX	No.	%	FREQUENCY	PERCENTAGE
UI	Male	227	10.38		
	Female	23	10.93	466	21.31
UNILAG	Male	233	10.65		
	Female	201	9.19	434	19.84
OOU	Male	158	7.22		
	Female	110	5.03	268	12.25
UNNAB	Male	190	8.69		
	Female	186	8.50	376	17.19
FUTA	Male	167	7.64		
	Female	118	5.40	285	13.04
LASU	Male	202	9.24		
	Female	156	7.13	358	16.37
Total	Male	1177	53.82		
	Female	1010	46.18		
TOTAL			100.00	2,187	100

From Table 1 it was shown that 53.82 of respondents were male while 46.18 were females. The result then showed that more males were captured during the administration of the questionnaire than females.

Table2: Program of Study of Respondents

Prog		UNILAG	U.I	OOU	UNAB	FUTA	LASU	TOTAL
Master	No.%	16910.21	20112.14	17110.33	19211.59	16210.08	17010.27	107048.93
MPhi	No.%	935.62	885.31	130.79	563.38	90.54	442.66	30313.85
Pgd	No.%	342.05	472.84	50.30	342.05	171.03	362.17	1737.91
PhD	No.%	653.93	593.56	140.85	331.99	352.11	393.36	24511.20
Other	No.%	4.4173	4.2971	3.9365	3.6861	3.4457	4.1769	18.11396

Total		434	466	268	376	285	358	2187

Table II showed that the six Universities under study had total number of 1,070 Master students which made up of 48.93%. This is followed by 303 (13, 85%) of M.Phil, while 173 (7.91%) Pg.d followed. Moreover, 245 (11.20%) representing PhD students. Lastly, 296 (18.11%) were others who did not fall within listed course of program. The result showed that more Master students has highest frequency in the use of EIS.

Tables 3: What motivates you to use electronic information sources?

ITEMS	No.	%
Pleasure	543	24.83
Research/Project	1741	79.61
Searching for new things	1201	54.92
Writing term paper	1045	47.78
Doing course assignment	1046	47.83
Quality of resources	967	44.22
Assisting other to get materials	755	34.52
Currency of information	814	37.22
Less Expensive	426	19.48
Quick Access to information	1317	60.22

The result showed that the respondents were motivated to use EIS for their research project which represents 79.61%. This is immediately followed by quick access to information which is ranked 60.22%. Next to this is searching for new things with 54.92% while writing term paper and course assignment ranked 47.78% and 47.83% respectively. The findings also showed that quality of resources as a motivation factor to EIS ranked with 44.22% on the other hand currency of information and assisting other to get materials ranked 37.22%. and 34.52% respectively. On a final note, less expensive was ranked 19.48%

Table 4: Do you have formal training on the utilization of EIS

		No.	%
YES	UNILAG	307	14.04
	UI	329	15.04
	OOU	190	8.04
	UNAB	266	12.16
	FUTA	203	9.28
	LASU	253	11.57
		1548	70.78
NO	UNILAG	127	5.81
	UI	136	6.22
	OOU	78	3.52
	UNAB	110	5.03
	FUTA	83	3.80
	LASU	105	4.80
		639	29.22
TOTAL		2187	100

The study revealed that 1548 (70.78%) had a formal training while 639 (29.22%) indicated not having formal training.

Table 5: Frequency of use EIS

Institution		Daily	Weekly	Monthly	Occasionally	Not at all
UNILAG	No	114	122	37	157	4
	%	5.21	5.58	1.69	7.18	0.18

UI	No	123	132	169	169	4
	%	5.62	6.04	7.73	7.73	0.18
OOU	No	71	76	97	97	2
	%	3.25	3.48	4.44	4.44	0.09
UNAAB	No	99	106	1`36	136	3
	%	4.53	4.85	6.22	6.22	0.14
FUTA	No	75	81	103	103	2
	%	3.43	3.79	4.71	4.71	0.09
LASU	No	94	101	131	131	4
	%	4.30	4.62	5.99	5.99	0.18
Total		567	618	793	793	19

From Table 5, the result showed that 114(15.21%) respondents from UNILAG used EIdaily.122 (5.58%) made use of it weekly, while 37 (1.69%) and 157(7.18%) used it monthly and occasionally respectively while 4 (0.18%) did not use it at all.

That breakdown of the U.I. respondents were as follows: 123 (5.62%) used EIS daily,132(6.04%) made use of EIS weekly while 38 (1.74%) used it monthly. Then 169 (7.73%) and 4 (0.18%) represent occasionally and not at all respectively. The analysis showed that OOU respondents used EIS daily 71 (3.25%), 76 (3.48%) used EIS weekly while 22 (1.0%) used it monthly. Then 97 (4.44%) and 2(0.09%) used it daily while 106(4.85%) used it weekly. 32(1.46%) and 136 (6.22%) used it monthly and occasionally respectively while not at all is 3 (0.14%), while weekly is 81 (3.70%). Then 24(1.10%) used it monthly and 103 (4.71%) utilized it occasionally while 2 which represent 0.9% did not use it at all. Lastly, LASU, 94 (30%) used EIS daily while 101 (4.62%) use it weekly 281 (1.28%) used it monthly 131 (5.99%) used it occasionally while not at all was represented by 4 ().18%)

Table 6: Can you retrieve information from these sources without being assisted?

		No.	No.
YES	UNILAG	368	16.83
	UNI	395	18.06
	OOU	227	10.38
	UNAAB	319	14.59
	FUTA	243	11.11
	LASU	304	13.90
	SUM (YES)	1856	84.87
NO	UNILAG	66	3.02
	UNI	71	3.25
	OOU	41	1.87
	UNAAB	56	2.56
	FUTA	43	1.97
	LASU	54	2.47
	SUM (NO)	331	15.13
GRAND TOTAL		2187	100

From the table it could be inferred that 1856 (84.87%) respondents could retrieve information from EIS without being assisted while 331 (15.3%) could not.

Table 7: what problems do you encounter while using EIS?

ITEMS	No.	%
Too few computers with internet facilities	814	37.22
Incessant power outage	910	41.61

Slow internet connectivity	1528	69.87
Non-connectivity	464	21.22
Inability to use computer	175	8.00
Selecting search terms	348	19.91
Finding relevant information	407	18.61
Lack of IT skills	96	4.39
Other	77	3.52

The table showed that slow internet connectivity was ranked 1528 (69.87%) highest among the problems encountered by the respondents. This was followed by incessant power outage which was ranked at 910 (41.61%) while lack of IT skill was ranked lowest at 77 (3.52%).

Table 8: What do you suggest your institution should do to solve the problems?

ITEMS	No.	%
Increase bandwidth	929	42.48
Provision of more computer system	1161	53.09
Provide a conducive environment	794	36.31
Have stable electrical backup	1181	54.00
Provision of 24 hours service	1045	47.78

From the table the respondents' suggestions were ranked as follows. The option which stated that have a stable electric backup was ranked the highest with 1181 (54.05). This closely followed by provision of more computer system which was ranked at 11.61 (53.09%). The respondents also agreed with the provision of 24 hrs service which was ranked at 1045 (47.78%) while increase of bandwidth 929 (42.48%). Lastly, provision of conducive environment was ranked lowest which stood at 794 (36.31%).

Discussion of the Findings

The research was carried out in the six universities south west region of Nigeria. From the study on the factors influencing the use of EIS in Nigerian Universities, it was found that more male 1117 (53.82%) than female 1010(46.18%) used EIS. It was equally detected that Master's program students 1070 (49.93%) were in majority in the use of EIS while M.phil and Ph.D students followed with 303 (13.85%) and 245 (11.20%) respectively. It could also be inferred that the program of study could be ranked as one of the factors that encouraged the use of EIS.

The strongest factor that influenced the use of EIS is the need to carry out a research. 1741 (79.61%), 1045 (47.78%) and 1046 (47.83%) of the respondents used EIS for their research work, writing term paper and completing course assignment respectively. This finding showed that the respondents used EIS because they wanted to excel in their courses of study. They make use of EIS to garner additional points to what they got from the oriented sources.

Versatility in the use of electronic sources of information has a greater influence in their use of EIS, Majority of the respondents expressed high confidence in their search skills. The study revealed that 1548 (70.78%) of the respondents had formal training while 639 (29.22%) had no formal training. The training they had also influenced the frequency of use of EIS.

Summary

Summarily, the factors that influenced the use of EIS respondents varied according to their program of study, the need to carry out researches to excel in

their academic endeavour and versatility in the use of information technologies to search for information. Finally, it is felt that the study has make some vital contributions as it has: filled gap in the world of research; added to the body of literature in the use of electronic information sources (EIS) by postgraduate students in Nigerian Universities; provided some measure of empirical baseline data on the use of EIS in Nigeria. On the basis of the findings from the study it is recommended that:

- institutional bandwidth should be increased in the respective universities;
- provision of uninterrupted power supply; and
- Universities should provide computer literacy program to cater for low skill users.

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