INFORMATION SEARCH STRATEGIES AS CORRELATE OF INFORMATION RESOURCE UTILIZATION IN ACADEMIC LIBRARIES

Godwin B. Afebende, Ph.D

Department of Library and Information Science

Cross River University of Technology, Calabar, Nigeria

ABSTRACT: *The study investigated the influence of knowledge of information search strategies on the use of library resources by undergraduate students in federal universities in South-South, zone, Nigeria. The sampled population comprised of 952 registered library users from 3 selected universities in the zone in 2017/2018 academic session. Survey research design method was employed using a structured questionnaire to collect data. Data collected was analysed using mean and standard deviation. The hypothesis was tested using simple linear regression. The regression model produced a regression coefficient of R = .405 which shows that there is a significant positive relationship between knowledge of information search strategies and utilization of library resources. The study equally revealed a relatively low knowledge of information search strategies by undergraduates in the universities investigated. It was recommended among others that libraries should intensify the teaching of information literacy skills, paying particular attention to information search strategies. More so, lecturers should give their students assignments and tasks that require them to do advanced literature search.*

KEYWORDS: information resources, search strategies, library resources, utilization, undergraduates, south-south zone, Nigeria.

INTRODUCTION

Academic libraries are libraries built and maintained by tertiary institutions such as universities, polytechnics/monotechnics, college of education and other post-secondary institution such as research centres. These libraries exist to serve a diverse community of users within these institutions such as students' lecturers' management and staff of the institution among others. Academic libraries derive their mission and vision from the parent institutions they serve. Primality, their objective is to provide information resources and service and make them available in adequate quality and quantity to support the institutions curriculum (Aiyegunle and Oyekanmi, 2014:50).

Access and utilization of library resources is considered critical to the existence, functioning and achievement of academic excellence. Libraries and the information services they provide are seen as necessary ingredients for research, teaching and learning Ogunleye, Adedeji and Soyele (2014:92) are of the opinion that the library is not only a collection of textbooks but also include other sources like reference materials, books relating to the school curriculum, subject area, periodicals, audio visual materials and electronically stored and retrievable sources.

Information and communication technologies (ICT) have continued to play a vital role in the transformation of academic and research libraries. Their developments have equally marked another era or a paradigm shift in information generation, storage, management, access and service through electronic or digital medium. Digital technologies have changed not only the way information is packaged, processed, stored and disseminated but has also changed how users seek and access information. Academic libraries no longer restrict themselves to print and analogue reference services but have embraced computer and communication technology-based services which focus on the use of technologies in the area of digital or virtual service. The deployment of ICT and information in digital formats can implication on new methods and techniques of seeking, accessing, evaluating and using these resources in the library.

One of the major objectives of academic libraries have been to increase access to and promote the use of library resources. Enhanced access can be facilitated through user education or bibliographic instructions. Today emphasis is shifting to information literacy programmes or students. Information literacy implies learning or having certain skills and competencies that the information literate person should possess or have. Some of these skills and competencies include (i) knowledge of computer and ICT tools, (ii) ability to identify the need for information, (iii) ability to search for information required in reliable sources and media, (iii) formulate search strategies that take into consideration different sources of information, (v) understand the varying ways that information is organized, both in print and digital format and most importantly, (v) the ability analyse and evaluate information according to their relevance to research (Uzuegbu, 2014).

Effective utilization of library resources is a matter of concern to libraries and their proprietors. Academic libraries are meant to provide access to a variety of information resources as well as promote their valuable use. The advances in new technologies and the proliferation information in diverse contents and formats necessitate knowledge of search strategies to locate and access them.

Statement of the problem
Effective utilization of information resources in libraries requires information search strategies and techniques. Academic libraries provide user education and information literacy programmes geared towards equipping students with relevant skills and competencies. Thus students are expected to use this knowledge to search and utilize library information resources .The questions that arise are (1) to what extent do undergraduate students rely on information literacy studies to exploit and use library resources and (2) has knowledge of information search strategies enhanced their utilization of library resources? While Enang (1998) revealed a positive significant relationship between search strategies and information retrieval, in university libraries, Mommoh and Egbunu (2010) who investigated catalogue use as a strategy to search library resources found that bulk of library users in university of Abuja did not use the library catalogues. In the same vein Nwokedi (2005) had earlier reported that medical students in university of Jos prefer to directly search library shelves rather than using catalogue to locate books in the library. Again from personal interaction with students as a lecturer, it has been observed that students just google whatever topics that are given to them as assignment rather than using advancement search engines to retrieve information from specific discipline/subject websites. Furthermore, Afebende and Nna-Etuk (2019) found that

undergraduate's knowledge of information retrieval tools in academic libraries in south-south zone, Nigeria was relatively low.

The core of information literacy studies lie not only in the understanding of the need for information and their sources only but also emphasize the strategies employed in searching and utilizing the information sources. This work is thus intended to assess information search strategies and utilization of library resources by undergraduates in federal universities in south-south zone, Nigeria

Purpose of the study
The purpose of the study is to assess the influence of user education studies on the utilization of library information resources by undergraduates in south-south, Nigeria. The study specifically sought to assess undergraduate information search strategies and utilization of library resources in the study area.

Research question: This question was raised to guide the study;
To what extent does knowledge of information search strategy influence the utilitsation of library resources in federal universities in south-south zone, Nigeria?

Research hypothesis: knowledge of information search strategies has no significant influence on the utilization of library resources by undergraduate in federal universities in south-south zone, Nigeria.

LITERATURE REVIEW

After the researcher has determined his/her priorities for information seeking, he/she must devise strategies to locate information from a variety of sources. This would require using information access, web search tools as well as define and refine his search strategies using appropriate key words to identify source that are authoritative, reliable and relevant to his/her search needs or query.

Information search strategies refer to plans for finding relevant information from an information system or organization. Dalrymple (2001) define it broadly as a conscious effort or approach or decision making to solve a problem or achieve an objective. Information search strategies according to Ojedokun (2007) involve the identification of relevant information source, be they bibliographic or full text databases or the internet. He notes that this also includes the selection of search terms and other symbols, developing search profile and modifying profiles by iterative search strategies for possible retrieval of required sources.

Enang (1998) investigated the relationship between search strategies and information retrieval in university libraries in south-south zone of Nigeria. The study adopted survey research design using a population of 450 library users randomly selected from three universities. The instrument for data collection was a researcher made questionnaire, while data collected was analyzed using Pearson Product Moment Correlation (PPMC). The result revealed that there is a positive significant relationship between search strategies and information retrieval in university libraries.

Doyce (1992) sees an information literate person as one who not only recognizes relevant information as basis for intelligent decision making but me who develops successful search strategies to access sources of information including computer-based and other technologies. Ogunniyi and Efosa (2010) investigated the use of catalogue in accessing information in the library by students of Adeyemi College of Education, Ondo. Survey method was used and the instrument for data collection was a questionnaire. The study revealed that 55.8% of the respondents used library catalogues to access library materials while 38.3% did not use the catalogue because they did not know how to use it. In a related study, Nwokedi (2005) reported that majority of medical students in university of Jos prefer to search shelves directly rather than using the catalogue for locating books in the library. These findings, point to a low or unsophisticated strategy in information search by these users.

Today, computers, internet and online resources are becoming the must preferred means of sourcing and utilizing information materials. To be able to do this, it require basic knowledge of computer operations, online search tools and strategies to locate the information needed. Okafor Ukwome (2010) underscore web search tool that users require to search for information on the internet such as the world wide web (www) and search engines. Thus, users need to be conversant with these and how they operate to be able to find their way on the web.

Anafo and Filson (2014) carried out a study on how to promote information literacy among undergraduate students of Ashesi University, college, Ghana. The author observed that students had difficulty in identifying and retrieving information needed from the web. Specifically, the students had difficulty identifying search terms, narrowing search terms to specific subjects and defining a search strategy to follow in retrieving the information needed.

In general, search strategy is not only a move made to locate or search for information; it is also the study of the theory, principle and practice of making and using search strategies and tactics (the American Heritage Dictionary of English language, 2009). In information retrieval process a user need to construct a search string which is a combination of keywords, truncation symbols and Boolean operators which must be entered into the search box of an electronic library resource, online database or an internet search engine as a search tool. From here, queries are analyzed for conceptual content and are translated into the vocabulary of the system using keywords or other relevant identified like year and place of publication used to match against the document surrogates in the database (Walker and Janes, 1999). Keywords are words or phrases or a combination of both drawn from the little of a document to make significant descriptors of the document to be retrieved. These maybe found in the title, subject heading, content note, abstract or text of a record in an online catalogue or bibliographic database. Keywords are not only used to describe relevant documents in a database; they are also used in facilitating retrieval of relevant documents.

Efthimiadis (1996) notes that query in essential to successful information retrieval. He observed that formulating effective query in vital in web search because the web is used by diverse users who vary in their levels of expertise, age and needs noting that experienced users formulate longer and more specific queries than the less experienced users. The emergence of the internet came with search engines to millions of end-users as these facilitate access to online databases. Umukoro (2005) observed that searching for information in the internet in generally an exercise in survival of the fittest. Trying to understand how search tools work, which tool

to use for which purpose and which tool does what is best are tasks for even the most dedicated internet searchers.

Searching for information in the internet is quite herculean because there are millions of web page texts graphically posted by anyone and everyone more so, the net contains unorganized sources of information which web-site can appear and disappear at will without notice. The centre for research in library and information management (CERLIMN, 2005) report shows that students have little awareness of alternative way of finding information with search engines. It therefore suffices as Efehimaidis and Hendry (2005) posit it that the knowledge of basic technical concepts for search engines and how they can be applied through information literacy programmes is important.

Oppenheim, Morris and Mcknight (2000) asserted that despite the impressive speed of search engines, effective information retrieval through or with them is uncommon. Spink and Ozmutlu (2002) point out that different search engines employ different syntax for querying which makes it hard for internet users to successfully exploit difference search engines.
In an online environment, search engines, and advanced search strategies through the application of correct search terms such as Boolean operators, asterisks and truncations can increase one's information retrieval and utilization of information resources

Adomi (2017 and Ojedokun (2007) observed that several search strategies are employed by users in the bid to locate information sources. They also noted that most strategies adopted often reflect the educational level and literacy level of users. One thing that is obvious is that having a fair knowledge of search strategies will enhance effective utilization of information sources needed. More so, success is information tough can be a great booster and motivation for literature search and utilization of library resources. This underscores the critical role information literacy plays as a factor in equipping information user with requisite skills and strategies to access, retrieve and utilize relevant information sources in both traditional library setting and in the online environment.

METHODOLOGY

The research design adopted was survey design because it was considered best in eliciting facts and seeking opinions of the respondents on the variable investigated. The research area was south-south geopolitical zone, Nigeria. The population of the study comprised 14860 registered undergraduate users from five federal universities in 2017/2018 academic session. Stratified random sampling was techniques was used to select 10% each of the registered users from three universities relative to their population totaling 952, this is presented in table II

Table 1: Sample Frame

S/N	Institution	Population	Sample size	Parentage
1	University of Uyo	3456	346	10
2	University of Port-Harcourt	3035	304	10
3	University of Calabar	3016	302	10
	Total	9506	952	

The scale used was a 4-point Likert-type assessment scale user questionnaire. The questionnaire was divided into sections "A" and "B". section "A" sought demographic information of the respondents while section "B" assessed knowledge of information search strategies as correlates of information use. The reliability of the instrument was obtained using Cronbach Alpha approach. The reliability coefficient obtained for the two subscales were .86 and .76 for knowledge of information search strategies and use of library resources respectively which shows that the instrument was significantly reliable enough to be used. See table II Data collected was analyzed suing mean (x) and standard deviation (SD) while the hypothesis was tested using simple regression analysis.

Table II Cronbach Alpha Reliability estimate of the study

S/N	Variable	Item	x-coefficients
1	Information search strategies	8	.86
2	Utilization of library resources	20	.78

Source: Field Survey, 2019.

PRESENTATION OF DATA, RESULTS AND DISCUSSION

The variables of the study are knowledge of information search strategies (independent variable) and utilization of library resources (dependent variable) by undergraduates in Federal Universities in south-south, zone, Nigeria. The descriptive analysis of the mean and standard deviation is presented in table III as shown below.

Table III: Descriptive analysis of mean and standard deviation of the variables

S/N	Variable	Mean	Std.Dev.	N
1	Knowledge of information search strategies	14.52	3.91	950
2	Utilization of library resources	4555	10.49	950

From table III, knowledge of information search strategy has a mean score of 14.52 out of a maximum of 32. If this value in compared with the expected mean of 20, the mean of the value is relatively lower than the expected mean. It can thus be inferred that undergraduates information search strategy in relatively low.

The variable in the null hypothesis is knowledge of information search strategies has no significant influence in utilization of information resources by undergraduates in federal universities in south-south zone, Nigeria. The simple regression analysis of the data collected is presented in table IV below;

Table IV: Simple regression analysis of the influence of knowledge of information search strategies in utilization of library resources by undergraduate in federal universities in south-south zone, Nigeria

R	R-square	Adjusted	Std. Error of the		
.405a	.164	.163	9.592		
	Sum of square	Df	Mean square	F sign.	
Regression	17108.137	1	17108.137	185.901	.000b
Residual	87334.740	948	92.028		
Total	104442.740	949			

a. Department variable: utilization of library resources
b. Predictors (constant), knowledge of information search strategies

The regression model produced a regression coefficient of R=.405 indicates that there is a strong positive relationship between knowledge of information search strategies and utilization of library resources. An R^2 value of .164 indicates that knowledge of information search strategies can account for 16.4% of the influence of their variable on utilization of library resources in the study area. The F-value of the analysis of Varience (ANOVA) obtained from the regression table is F= 185.90 to 2-decimal place and the significant value of 0.001(or $p < .05$) at the degree of freedom (df) 1 and 949. The implication of the result is that the null hypothesis is rejected and the inference drawn from the result is that knowledge of information search strategies has significance influence in utilize of library resources by undergraduates in federal universities in the south-south zone, Nigeria.

The findings in this result is in agreement with Bassey (2011) whose work revealed that there is a relationship between information search parameter and inherent personal characteristics on readers' ability to retrieve information in reference service. Also in the same line, Enang (1998) study had earlier found a strong positive relationship, between search strategies and ability to retrieve information sources in university libraries by her students. On their part, Okafor and Ukwoma (2014) underscored basic skills and competencies that users must posses to effectively retrieve and use information resources in an online setting.

It is considered that a basic understanding of information search strategy would enable users to use more direct and efficient approach when searching for information in the library. Searches in different search engines and tools like library catalogues, databases and the internet (OPAC) cannot be conducted in the same way. So also information contained or presented in scholarly scientific journals articles is not the same as those found in popular magazines.

What was equally revealed from the study is that undergraduate's information search strategies was low in the universities investigated. The findings corroborate earlier works of Ogunniyi and Efosa (2010) and Anafo and Filson (2014) who found that studying search strategies for information materials was unsophisticated and low and that students had difficulties in identifying specific search terms to access and retrieve information sources they needed. Oppenham, Morris and McKnight (2000) had also lamented from their studies that despite the impressive speed of search engines, effective information retrieval with them was uncommon. A student who lacks knowledge of information search strategy is likely to be unable to interpret bibliographic reference resulting in difficulties in retrieving needed documents. It is therefore pertinent for undergraduates or university libraries to have adequate knowledge of search strategies to facilities their efficient and effective utilisation of information resource provided for them in their libraries and beyond.

CONCLUSION

Libraries acquire, organise and store a variety of information resource to serve their user needs. Organising functionality and content into structures and systems that potential users can easily navigate does not happen by chance but are planned. The growing complexity of the information environment occasioned by the introduction and application of ICTs, and increasingly diverse format and content in which information comes has create added problems faced in accessing information.

A couple of studies reviewed and the result form this study show that studies are not adequately equipped to strategically search for information resources in their libraries. Consequently, there is a need for enhanced information literary and associated technologies skill in order to enable students effectively navigate and utilise their library resources.

RECOMMENDATIONS

Arising from the findings and consequent conclusion, the following recommendation are made:

• Academic librarians should be equipped with relevant knowledge on information literary studies and competency in IT not only to enable them deploy electronic services but to promote and inculcate information literacy skills to their users.

• The university libraries should expand their user education programmes to focus on information literacy skills especially on aspects that require them to use advance search strategies to locate, access and utilise information resources both in print and electronic/online systems.

• Lecturers should give their students tasks and assignments that require them to explore and carry out literature search both in the library and online service

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