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Information behavior of students towards the use of library information resources in Universities in Oyo State, Nigeria

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Abstract

The study investigated the information behavior of students towards the use of library information resources in Universities in Oyo State, Nigeria. The study adapted the Wilson's model of Information Behavior and adopted a correlational survey research design. A sample size of four hundred respondents was drawn from selected universities in South Western Nigeria, using a simple random sampling technique. Regression analysis and correlation analysis were used to analysis data obtained from the field. The findings of this study revealed that among the information behavior independent variables which include information needs, seeking and sources, only information needs significantly influence information use. However, information needs, seeking and sources do have a significant joint effect on students' information use. Also, information accessibility was found to have significant controlling effect on the relationship between information availability and use which makes information availability and accessibility very useful variables in the information behavior study especially as regards to students as conceptualized in the academic community in this study. The study recommends that academic library should endeavour to embark on users' needs assessment from time to time to be able to make available needed information resources that would meet users' needs and also enhance use of information available.

Keywords: **Information behavior, library information resources, Nigeria University Students, Information needs**

Introduction

The success of an educational institution depends on the provision of information resources to its human resources which include staff and students. A major strategy to providing these information resources has been through the provision of effective library in the education system. Mubashrah, Riaz & Shaziah (2013) noted that the library provides resources which are essential to support and strengthen educational quality. Akande (2008) defined library as the collection of information resources and the place where the information resources are kept for consultation. Furthermore, a library is a repository of various forms of information which may be in print and non-print formats such as books, periodical, reference materials, manuscripts, magazines, theses, gazettes etc (Clifford, 2014). Other non-printed materials like microforms, films, magnetic tapes, slides, video tapes and data stored in electronic media like discs, CD-ROMs can also be found in libraries. Major libraries and information resources are magazines, newspapers, filmstrips, videotapes, recording of all types, slides, computers, books, journals, maps, dissertations/theses, conferences and seminar papers, and other resources such as electronic resources (Arua and Chinaka, 2011; Iwara, 2015).

Although libraries are repositories of printed and non-printed materials, library and information resources are mostly ignored (Mubashrah et al., 2013). According to Iwhiwhu and Okorodudu (2012), a major factor that is put into consideration in users study with respect to the use of library information resources is user's satisfaction. In this regards, Iwhiwhu and Okorodudu (2012) noted that in measuring user's satisfaction in library information resources use, three main characteristics are investigated: quality of the information product, the information system and the services that make the information product available. In summary, these three characteristics are the information resources, facilities and services. With respect to library information resources, this could be divided into two: printed and electronic information resources (Mubashrah et al., 2013). Facilities could imply the major infrastructure and structure put in place to enhance service delivery such as information and communication technology, library study space, chairs, tables, selves, etc. Services include the provision of information resource to users by the library towards achieving the library goals and objectives.

Iwhiwhu and Okorodudu (2012) noted that academic library is established to provide materials, which communicate experience and ideas from one person to another and make them easily and freely available to all people. With this major aim, libraries are expected to make available the various information resources in the library, thus the concept of library information resources, provide necessary facilities that would aid the access and use of the information resources; and also provide necessary services that would make the information resources useful to users. However, Warwick, Terras, Galina, Huntington and Pappa (2007) noted that the activities of the library in providing information resources for its users are complex. Due to this complexity, users are faced with various challenges accessing library information resources-thus, the need to understand library user's information behavior especially among students. Also, Wilson's model of Information Behavior (1981, 1999, 2000); Ellis's behavioral model for information system design (1989); Kuhlthau's information-seeking model (1993); Johnson and Meischke's comprehensive model of information-seeking (1993); Marchionini's information seeking in electronic environments model (1995); Bates's berry picking model (1989);

Ingwersen's cognitive IR interaction model (1992;1996); Saracevic's stratified interactive IR model (1996); among others. Others include Spink's search process model (1997); Choo behavioural model for the web (2000); Broder's standard model of the search process (**2002**); Fisher, Fisher and Harman's (2003) information–motivation–behavioural skills model; Knight and Spink's macro model of human IR behaviour on the web (2008); Omiunu (2014); Ohtoshi-Gottschalg-Duque's Model of Information Behavior (2016).

From a general perspective, Omiunu (2014) noted that information need is the information gap or ignorance observed or discovered through various unconscious, unplanned and unstructured dynamisms of data and information maneuvering, manipulating, and exchange between a potential information user and other information source or system which could be humans, machines, places such as library, among others. After information needs are defined, users may now embark on various information seeking strategies from various information sources to meet users information needs when applied to areas of interest. With regards to this study, Iwhiwhu and Okorodudu (2012) noted that a library may meet user's information needs (subjective from one user to another- thus, users specific) by acquiring, organising and making available relevant information resources backed by appropriate facilities and delivered by means best known to them, which could be manual or through Information and Communication Technologies (ICTs). Thus, the library becomes an information source to the user. Also, it could be conceptualized that the librarians could also be information sources that users may consult when in need. In addition, the various infrastructure put in place by the libraries could also be information sources such as ICT, shelves, etc. To this end, Ojo and Akande (2005); Iwhiwhu and Okorodudu (2012); and Omiunu (2014) noted that ICTs could be a major information source for library information users.

Also, studies have stated that inadequacy of current and relevant information resources for students and lecturers such as in the teaching, learning and research had been the bane of university education in Nigeria (Okonofua, 2008; Clifford, 2014). Also, Nnadozie and Nnadozie (2008) and Clifford, (2014) noted that the there is a gap and a challenge between the provision of information resources and services and information resource accessibility and use. In addition, Leautier (2004) stated that within any academic communities such as university, information accessibility is a critical necessity. Therefore, comparing the studies of Leautier (2004); Okonofua (2008); Nnadozie and Nnadozie (2008) and Clifford, (2014) emphasized that the link between the accessibility of information resources activities and the academic libraries is very crucial in library and information resources study. In addition, studies such as Mubashrah et al. (2013); Iwara (2015); Clifford (2015); and Akussah, Asante and Adu-Sarkodee (2015) have affirmed that information availability and accessibility are key to predicting users information use. To this end, there is the need to investigate the information behavior of library information resource users. Therefore, the following hypotheses would be subjected to test at 0.05 level of significance:

Ho$_1$: There is no significant relationship between students' information behavior independent variables (information needs, seeking and sources) and library information resources use.

Ho$_2$: There is no significant relationship between information availability/accessibility and library information resources use.

Literature Review

From antecedent, information behavior has attracted scholars from multi-disciplinary background. This has led to the provision of various models to explaining information behavior among information users. The various information behavior models are Wilson's model of Information Behavior(1981, 1999, 2000); Ellis's behavioral model for information system design (1989); Kuhlthau's information-seeking model (1993); Johnson and Meischke's comprehensive model of information-seeking (1993); Marchionini's information seeking in electronic environments model (1995); Bates's berrypicking model (1989); Ingwersen's cognitive IR interaction model (1992;1996); Saracevic's stratified interactive IR model (1996); Spink's search process model (1997); Choobehavioral model for the web (2000); Broder's *standard model of the search process* (2002*);* Fisher, Fisher and Harman's (2003) information–motivation–behavioral skills model; Knight and Spink's macro model of human IR behavior on the web (2008);Omiunu (2014); Ohtoshi-Gottschalg-Duque's Model of Information Behavior (2016); among others.

A common feature among these studies is that information behavior consists of users information needs, seeking and sources (searching), and use. Omiunu (2014) together with Lalazaryan and Zare-Farashbandi (2014) noted that information seeking behavior arises from information need and that both information needs and seeking are lower level of information behavior which according to Wilson (1981), ends with the use of such information. To this end, one can emphasize that information needs could predict information seeking and sources and then affect information use among users. In addition, it is only when information is made available for and accessible to users that it will be deemed necessary for use. To this end, studies such as Leautier (2004); Okonofua (2008); Nnadozie and Nnadozie (2008); Mubashrah et al. (2013); Clifford, (2014); Iwara (2015); Clifford (2015); and Akussah et al. (2015) affirmed that the availability of and accessibility to information resources in library is very germane to its use. As a result, if information is not made available to or accessible for potential users, such may pose a challenge on the seeking and use of such information. It is therefore important to investigate user's information behavior in the library settings.

Research Framework

The study adapted the Wilson's (1981) model of Information Behavior as emphasized by Knight (2006) - Figure 1. Adapting Wilson's (1981), the three important activities in the information behavior models are information need; search and use. However, this study concentrates on four major activities which include information seeking and information sources as information search process. Therefore, in this study, information behaviour is known to consist of information needs, seeking, sources and use. From the Wilson's (1981) model, information needs is said to predict information seeking. Also, Wilson's (1981) model of Information Behavior affirmed that information seeking could predict information use. Similarly, Wilson's (1981) model of Information Behavior stated that information sources would predict information use among users. Therefore, as conceptualized in this study through the Wilson's (1981) model of Information Behavior, the variables of information behavior could be grouped into two: the independent variables which are information needs, seeking and sources; and the dependent variable which is information use. To this end, this present study hypothesized that there will be no significant relationship between the information behavior independent variables (information needs, seeking and sources) and the information behavior dependent variable (information use). As a result, the study hypothesized that:

Ho1: There is a significant relationship between students' information behavior independent variables (information needs, seeking and sources) and library information resources use.
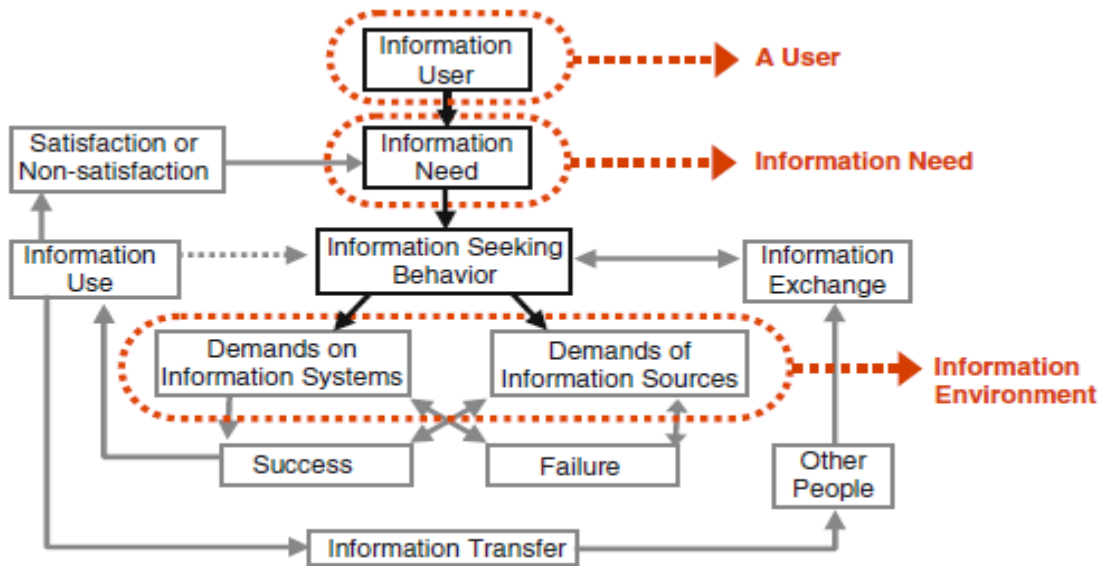
Figure 1: Wilson's (1981) model of Information Behavior as emphasized by Knight (2006)
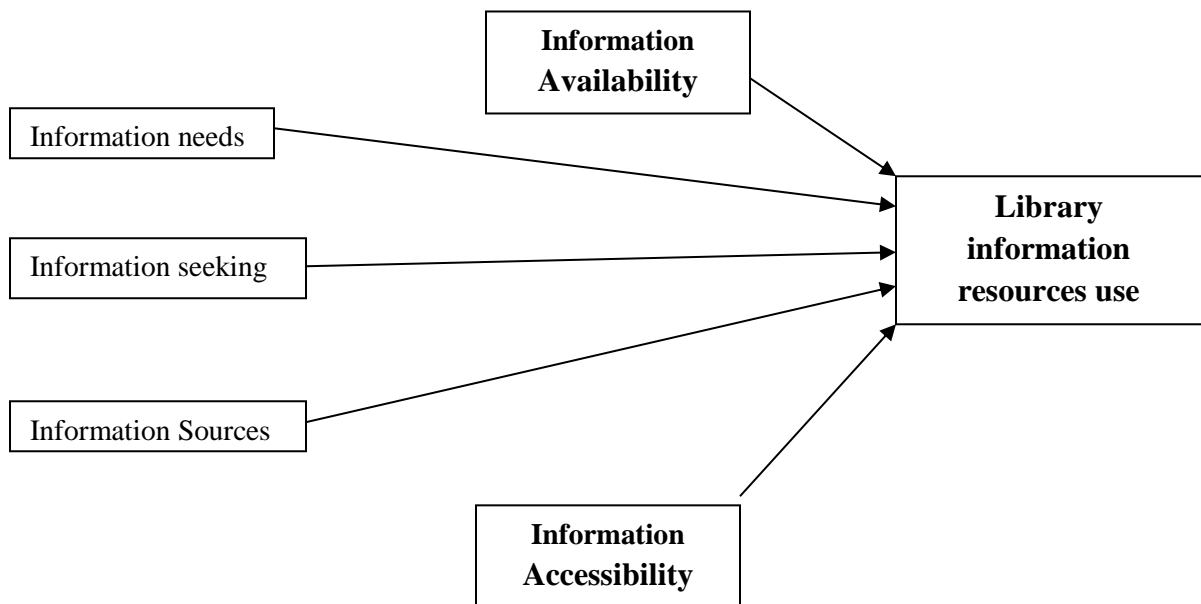
Figure 2: Library Information Resource Behaviour Model

Source: Oladunjoye et al. (2018)

Moreover, Mubashrah et al. (2013); Iwara (2015); Clifford (2015); and Akussah, Asante and Adu-Sarkodee (2015) noted that information availability could predict information use. In addition, Iwara (2015); Clifford (2015); and Akussah et al. (2015) noted that information accessibility could predict information use. As a result, the present study hypothesized that:

Ho$_2$: There is a significant relationship between information availability/accessibility and library information resources use.

Research Methods

The study adopted a correlational survey research design which involved the investigation of the inter-relationship between variables of interest to this study which are majorly information needs, seeking, sources, use, availability, and accessibility. In addition, a sample size of four hundred respondents was drawn from and equal numbers (100) of respondents were spread across the selected universities in South Western Nigeria, using a simple random sampling technique giving a total of four hundred. Universities selected are University of Ibadan, Ibadan (A Federal University); Lead City University, Ibadan and Ajayi Crowder University, Oyo (Private Universities); and Ladoke Akintola Akintola University of Technology, Ogbomoso (State University). Information was obtained through the aid of a structured questionnaire which was also subjected to validity and reliability using the Cronbach alpha. The instrument yielded a reliability result of 0.73 for information needs, 0.82 for information seeking, 0.74 for information sources, 0.77 for information use, 0.79 for availability, and 0.83 for information accessibility. The regression analysis and correlation analysis was used to analysis data obtained from the field in this study.

Results

The result of this study is provided with respect to the hypotheses of the study.

Ho$_1$: There is no significant relationship between students' information behavior independent variables (information needs, seeking and sources) and library information resources use.

The result for hypothesis one is presented in Table 1.

Table 1: Regression analysis result for hypothesis one

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.855	1.196		9.913	.000
	Information needs	.275	.033	.472	8.405	.000
	Information seeking	-.039	.027	-.081	-1.457	.146
	Information sources	.037	.039	.054	.960	.338
a. Dependent Variable: Information use						

The result in Table 1 shows that, only information needs from the information behavior independent variables was significant (p<0.05), while information seeking and sources used to meet the various information needs were not significant (p>0.05). This implies that the information needs of students and use of such information are highly significantly related. Also, the result in Table 1 shows that a unit increase in the information needs of students would increase the potential to use available information by 47% by the students. Also, the joint effect of the information behavior independent variables which include information needs, seeking and sources on information use is presented in Table 2 below.

Table 2: Joint effect of information behavior independent variables on Information use

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	523.751		174.584	26.102	.000
	Residual	1665.451	249	6.689		
	Total	2189.202	252			
a. Predictors: (Constant), Information sources, Information seeking, Information needs						
b. Dependent Variable: Information use						

The result in Table 2 shows that information behavior independent variables which include information needs, seeking and sources do have a significant joint effect on students' information use (p<0.05). This implies that when various information sources are provided and available from which students would seek to meet their various information needs, the propensity to use the information obtained is high. Therefore, the information behavior independent variables

which include information needs, seeking and sources do have a high significant joint effect on the information use among students.

Ho2: There is no significant relationship between information availability/accessibility and library information resources use.

The regression analysis of hypothesis two is presented in Table 3.

Table 3: Regression analysis for hypothesis three

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.673	1.095		13.406	.000
	Information availability	.496	.060	.428	8.316	.000
	Information accessibility	-.023	.064	-.019	-.366	.715
a. Dependent Variable: Information use						

The result of in Table 3 shows that only information availability was significant ($p < 0.05$) to influence information use while information accessibility was found not to be significant ($p > 0.05$). To fully explain the relationship between among information availability, accessibility and use, a partial correlation analysis was also run, and provided in Table 4.

Table 4: Partial Correlation Analysis for hypothesis two

		Mean	Std. Deviation	N	df	r-value	p-value	comment
Information accessibility	Information availability	11.0160	2.49160	313	310	.427	0.000	Significant
	Information use	19.8115	2.89112	313				
	Information accessibility	14.0511	2.32819	313				

The result in Table 4 shows the effect of information accessibility on the relationship between information availability and use. The result shows that information accessibility was found to have significant controlling effect on the relationship between information availability and use ($p < 0.05$). In addition, considering the r-value of the result which is 0.427, the result shows that the strength of the partial correlation of information accessibility in control for the relationship between information availability and use was 18%. This implies that information accessibility

would show and 18% influence on the relationship between information availability and use therefore the importance of information accessibility for available information to be used by users which in this study are students of the universities. Also, this could be buttressed by the joint effect of information availability and accessibility on information use as provided in table 5 below.

Table 5: Joint effect of information availability and accessibility on information use

Model		Sum of Squares	Df	Mean Square	F	Sig.
		ANOVA				
1	Regression	475.679	2	237.840	34.579	.000[a]
	Residual	2132.199	310	6.878		
	Total	2607.879	312			
a. Predictors: (Constant), Information accessibility, Information availability						
b. Dependent Variable: Information use						

The result in Table 5 shows that there is a joint significant effect of information availability and accessibility on information use. This corresponds with the result in Table 4 that information accessibility does not affect information use except it is made available for users.

Discussions

The findings of this study revealed that the independent variables of information behavior which include information needs, seeking and sources influence information use among users. However, information needs was more significant to use when considered separately. The significant effect of the information seeking process and the sources used among users were more pronounced when provided with regards to the information needs of users thus having a joint effect on the propensity of use of information among information users. This buttressed the definition of information provided by Omiunu (2014) that information needs is the gap or ignorance observed or discovered through various unconscious, unplanned and unstructured dynamisms of data and information maneuvering, manipulating, and exchange between a potential information user and other information source or system which could be humans, machines, places such as library, among others.

Also, information availability was significant to influence information use while information accessibility was found not to be significant, however, information accessibility have significant controlling effect on the relationship between information availability and use. This implies that without the availability of information, information accessibility may not have effect on use of information among users. this implies the importance of both information availability and accessibility to information use. The findings of this study support the work of Leautier (2004) that within any academic communities such as university, information accessibility is a critical necessity which in this study connects the availability of information resources in the library with use. The findings of this study helps explain the works of Mubashrah et al. (2013); Iwara (2015); Clifford (2015); and Akussah, Asante and Adu-Sarkodee (2015) in a better way that although, information availability and accessibility are key to

predicting users information use however, information accessibility aids the propensity to use such information made available.

Comparing the independent variables of information behavior and the availability/accessibility variables, the findings of this study corroborated with the works of Iwhiwhu and Okorodudu (2012) that the information needs of users could be met by liCbraries through the acquiring, organising and making available relevant information resources backed by appropriate facilities and delivered by means best known to them which in this study is conceptualized as accessibility of information by users. The findings of this study buttressed why Nnadozie and Nnadozie (2008) and Clifford, (2014) noted that a gap and a challenge exists between information resources availability and accessibility and use. Therefore, the findings of this study provided the strategy to close this gap- However, there is a high propensity for use to use information due to their high level of information needs, thus the need for users' need assessment. The study recommends that: comparing the independent variables of information behaviour and availability/accessibility of information resources to efficiently affect use of such information resources in the academic libraries.

Conclusion and Recommendations

In conclusion, the independent variables of information behavior which include information needs, seeking and sources need to be approached from a joint perspective in information behavior study. That is, information needs could be useless when sources to seek for information is not made available and are not accessible for users.

i.   Academic library should endeavour to embark on users' needs assessment from time to time to be able to make available needed information resources that would meet users needs and also enhance use of information available.
ii.   Various information sources should be provided in the library with respect to the various needs of users within the academic community and such sources should be made known to users so as to increase the propensity of their search towards enhance the use of such information.
iii. In the information society era, accessibility of information that are available such be given preeminence in the academic library.

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