



# **Variables prejudicing against the utilization of computerized data assets by students in Nigeria**

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Abstract

The research work investigated the factors militating against the use of Digital Information Resources (DIRs) by undergraduates in Delta and Edo States, Nigeria. This study adopted descriptive survey research design. The study was conducted in Federal and State University Libraries in Delta and Edo states in the south- south geopolitical zone of Nigeria. The Federal and State Universities in the zone are located in Abraka, Benin City, Ekpoma, and Ugbomro. The sample for the study comprised one thousand and eighty-eight hundred (1,088) users drawn from four universities. Purposive sampling technique was used to select two universities from Delta and Edo states respectively. Proportionate stratified sampling technique was used to select respondents from each of the federal and state university libraries used for the study. The instruments used for the collection of data was structured questionnaire and Thereafter the copies of the final version of the questionnaire were administered with the help of research assistant in each school to undergraduates of the library as at the time of administration. The data obtained for this study were analyzed and presented based on the research question and hypothesis that guided the study. Descriptive statistics was used to answer all the research questions and inferential statistics was used in testing the hypothesis. The research hypothesis was tested using Z- test method. Out of 1,088 questionnaires distributed, 972 was duly completed and returned. This shows 89.5% return rate. The researcher proffers solutions to the study.

**Keywords:** Problems, Digital Information Resources, Undergraduates, Use, Universities

## **INTRODUCTION**

In recent times, universities in Africa have embarked on integration of technology in their operations. This serves as a tool for improvement and development, especially in a situation where attention is drawn to the academic contents and ways of digitizing and preserving them.

University libraries are fully involved in this development as they are the heart of the university. This is because University libraries house the intellectual contents of the institutions. This effort to digitize the intellectual property of the institution is what is known as digitization

(Adeyinka, Adedeji, Ayen, & Omoba, 2008). Digital Information Resources (DIRs) connotes those information resources which before now were in print form, but currently found in non- print form ( soft copy) and are accessible through computer machines and other corresponding ICT tools (Obaseki, Umeji & Krubu, 2010). Similarly, Digital Information Resources (DIRs )includes music's, games, stories, articles from magazines, published journals and books, encyclopaedias, pamphlets, cartographic materials and other published resources that are in soft copies. They also often include sound animated graphics, pictures and movies.

The aim of digitizing library materials is for preservation and easy access by students, researchers and other users. In the words of Fabunmi, Paris and Fabunmi (2006:30) stated that:

*Digitization improves access to library resources. By digitizing library collections, information will be accessible to all instead of a group of researchers. Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. Digitization makes the invisible to be visible. Several users can access the same material the same time without hindrance. It also removes the problem of distance, as users do not have to travel to libraries that possess the hard copies of library materials before they can access and use such materials.*

Okwaro (2010) while discussing issues relating to digital libraries and development, draw attention to the key principle of the World Summit on the Information Society (WSIS) which emphasized the common desire and commitment of the world to build a people - centred, inclusive and development-oriented information society. According to him, it would facilitate a situation where everyone can create, access, utilize and share information which is aimed at enabling individuals and communities to achieve their full potential in promoting sustainable development.

### **Conceptual framework of digital information resources (DIRs)**

Digital Information Resources(DIRs) of an institution's library has a lot of positive effects. In addition to this, Imo and Igbo (2011) stated that digitalization promotes access to information for the end user such as researchers, lecturers and more especially undergraduates and also enhances the status of the institution engaged in the initiative at the global level. A digital information resource of African origin involves diverse kinds of materials. In studies conducted by

Fatoki (2007), the materials considered for digital resources include, published articles, theses, dissertations, conference papers, reports, technical and working papers, photographs, newspapers, government official publications, data/ statistics, artefacts, maps, charts, artistic paintings, historical documents and African documents and manuscripts.

The importance of digital libraries in area of information and knowledge provisions to human resources in all sphere of life cannot be over -emphasized. It is obvious that academic libraries all over the world and particularly in Nigeria are challenged with issues such as paucity of finance to acquire information resources in print form, and even subscribe to electronic resources; competent library professionals suitable for the digital era are also inadequate.

Another potential problem in digital age in developing countries is hardware and software related problems, human resources to maintain the technologies effectively as well as power supply instability. This situation is prevalent in most academic libraries and has great implication for education development of this nation (Omekwu, 2002).

Despite the above challenges, making digital resources and services available for use by students and other users becomes very vital as digital libraries provide access to information resources such as databases, electronic journal (e-journal), electronic book (e- book) alerting services, , special collections, CD-ROM, online reference tools and these improve the quality of teaching and research (Lee, 2008). Therefore, it has become expedient to know the factors militating against the use of Digital Information Resources (DIRs) by undergraduates in Delta and Edo States, Nigeria. Since information seekers are no longer satisfied with the printed materials alone, the only alternative are digital information resources in the digital age.

### **Statement of the Problem**

The widespread use of electronic technologies to produce, store, manipulate and distribute information of all kinds is one of the great achievements of the information age. The availability and use of Digital Information Resources (DIRs) can facilitate increase and ease processing and access of information to library users. However, despite the advantages of Digital Information Resources (DIRs) usage in university libraries; several literatures have noted that there are a number of generally recognised problems that hinder the effective utilisation of the DIRs among students. Cyprian (2009) opined that students lack skills (competency) to search information materials in digital environment of academic libraries. These have greatly affected creativity and innovation in libraries. Some of these libraries have

adequate digital resources which are greatly being under-utilized largely due to lack of information technology (IT) skills by students. Furthermore, absence of related infrastructure facilities in some of the university libraries in Nigeria is part of the challenges facing students when they want to access and utilize Digital Information Resources (DIRs).

It is in view of these that the researcher investigated the factors militating against the use of Digital Information Resources (DIRs) by undergraduates in Delta and Edo States, Nigeria.

### **Purpose of the study**

The main purpose of this study was to find out the factors militating against the use of Digital Information Resources (DIRs) by undergraduates in Delta and Edo States, Nigeria. The specific objective is to find out:

the constraints to effective use of Digital Information Resources (DIRs) by undergraduate students in university libraries.

### **Research Hypothesis**

There is no significant difference in the constraint identified by students in the use of Digital Information Resources based on the ownership of the institution

### **METHOD**

This study adopted descriptive survey research design. The study was conducted in Federal and State University Libraries in Delta and Edo states in the south- south geopolitical zone of Nigeria. The Federal and State Universities in the zone are located in Abraka, Benin City, Ekpoma, and Ugbomro. The sample for the study comprised one thousand and eighty-eight hundred (1,088) users drawn from four universities. The selection of the four universities was based on the fact that they are government owned institutions and are in the position to follow the trend of digital information age because they are better equipped than private universities. Purposive sampling technique was used to select two universities from Delta and Edo states respectively. Proportionate stratified sampling technique was used to select respondents from each of the federal and state university libraries used for the study.

The instruments used for the collection of data was structured questionnaire and Thereafter the copies of the final version of the questionnaire were administered with the help of research assistant in each school to undergraduates of the library as at the time of

administration. The data obtained for this study were analyzed and presented based on the research question and hypothesis that guided the study. Descriptive statistics was used to answer all the research questions and inferential statistics was used in testing the hypotheses. The research hypothesis was tested using Z-test method. Out of 1,088 questionnaires distributed, 972 was duly completed and returned. This shows 89.5% return rate. Analysis was based on this number.

### **Analysis**

**Research question 1:** What are the constraints militating against students' effective use of digital information resources in university libraries?

The result presented in Table 1 shows that the respondents agreed that epileptic power supply; non-availability of online databases; inadequate number of computers to access digital information resources; inadequate bandwidth; Network problems; lack of skill to access digital information resources in local and foreign databases; Lack of formal training on internet use; Server slowness and frequent breakdown of digital resources are constraints to students effective use of digital information resources in University libraries, thus the mean scores of 2.96; 2.69; 2.68; 2.57; 2.63; 2.64; 2.68; 2.62; and 2.52 respectively.

This shows that the students agree that all the listed nine constraints for accessing digital information resources were encountered by them as they tried to access the digital information resources.

**HO1:** There is no significant difference in the students' mean rating of constraints in the use of Digital Information Resources based on the ownership of the institution.

Table 2 shows that there is no significant difference in students' mean rating of the constraints of usage of Digital Information Resources (DIRs) by University ownership as the calculated z-values for six out of the nine rating of constraints at 0.05 level of significance, which ranged from 1.647-1.898 are less than z-critical value of 1.96. The null hypothesis was therefore accepted. It is thus concluded that students in federal and state universities do not differ significantly in their mean rating of the constraints to usage of Digital Information Resources (DIRs).

### **Implications to undergraduates**

The study has revealed that the Digital Information Resources are used to low extent by undergraduates in UNIBEN; AAU; DELSU and FUPR. The implication is that undergraduates that utilized digital information resources to low extent will lag behind in their research,

**Table 1:** Mean scores(X) of students on the constraint face by students in use DIRs

S/N	Digital Information Resources	Mean	Remarks
1	Epileptic power supply	2.96	Agree
2	None availability of online databases	2.69	Agree
3	Inadequate or slow band width	2.68	Agree
4	Inadequate number of computers to access digital information resources in my library	2.57	Agree
5	Network problems	2.63	Agree
6	Lack of skills to access digital information resources in the both local /foreign databases of my library	2.64	Agree
7	Lack of formal training in Internet use	2.68	Agree
8	Server slowness	2.62	Agree
9	Frequent breakdown	2.52	Agree

learning and assignment process in this digital age. The students could not compare themselves with other institutions of higher learning that use DIRs to a very great extent. The University libraries where the students use DIRs to low extent also could be regarded as traditional library because they have not incorporated full digital infrastructures and equipments for digital information resources which will be utilized by undergraduates in their studies.

The study also reveals that there are numerous factors that hinder undergraduates to have access to DIRs. This implies that there is negligence on part of the four University authority study to look into the challenges faced by undergraduate students to use digital information resources for research, assignment and learning.

### Discussion of Findings

Constraints to students effective use of Digital Information Resources in the University Libraries are epileptic power supply; non-availability of online databases; inadequate number of computers to access digital information resources; inadequate bandwidth; Network problems; lack of skill to access digital information resources in local and foreign databases; Lack of formal training on internet use; Server slowness and frequent breakdown of digital resources. However, test for hypothesis two indicated that there is no significant difference in the mean rating of constraints to

usage of digital information resources by students of both federal and state universities.

This study agrees with Imo and Igbo (2011) which identified similar problems in the utilization of DIRS among undergraduates in Nigerian Universities. Among the identified problems are lack of skills and knowledge of digital and electronic resources development and management by librarian, inadequacy of funds for the projects, unstable electricity supply, lack of written policy framework guidelines for the project, lack of maintenance, fear of copy-right violation, and non-availability of training programmes for up-dating of skills of staff. This study also is in line with Owoeye and Oguntuase (2008) which identified the problems of DIRs usage by students as technical problems, poor telecommunication link, trained technical staff to help students are inadequate, poor attitude to the training of professional staff, and administrative problem. However, the testing of hypothesis reveals that there is no significant difference on constraints encountered by undergraduates in Federal and State University Libraries. Therefore, the findings show that DIRs accessibility is very difficult for undergraduates because of the numerous hindrances.

### CONCLUSION

Based on the analysis and discussion of the results of this study, the below conclusion are drawn with reference to the research question. The numerous factors that

**Table 2.** Z-test Analysis of Students' mean rating of constraints to the use of Digital Information Resources by University Ownership

DIRS in University Libraries	University Ownership	N	Mean	Std. Dev	Df	Z- cal	Z- crit	Decision
Epileptic power Supply	Federal	506	3.05	1.08	970	2.522	1.96	Accepted
	State	466	2.87	1.15				
Non availability of online database	Federal	506	2.75	1.11		1.887	1.96	Rejected
	State	466		1.01				
Inadequate or slow band width	Federal	506	2.62	1.07		1.898	1.96	Rejected
	State	466	2.74	1.05				
Inadequate number of computer to access digital information resources in my library	Federal	506	2.69	1.21		3.215	1.96	Accepted
	State	466	2.44	1.17				
Network problems	Federal	506	2.71	1.00		2.510	1.96	Accepted
	State			1.07				
Lack of skills to access digital information resources in the both local/foreign database of my library	Federal	466	2.54	.87		.679	1.96	Rejected
	State	506	2.66					
		466	2.62	.86				
Lack of formal training in internet use	Federal	506	2.68	.78		-.135	1.96	Rejected
	State		2.68	.72				
Server Slowness	Federal	466	2.57	.89		-1.647	1.96	Rejected
	State	506	2.67	.93				
		506	2.48	.87				
Frequent breakdown	Federal	466	2.56	1.02		-1.317	1.96	Rejected
	State							

hinder the students from accessing DIRs include epileptic power supply, none availability of online databases, inadequate or slow bandwidth; lack of formal training in the Internet use, network problems, and lack of skills to access DIRs in both local and foreign databases in their library as well as server slowness.

## RECOMMENDATIONS

The following recommendations were made to higher institutions in Delta and Edo states and others Nigeria tertiary institutions.

1. It was argued that lack of skills to access

DIRs hinder undergraduate students to make use of e-resources therefore, the researcher suggests that management of the four university libraries in the study should try to train their students in up- to-date 21<sup>st</sup> century skills of Information Communication technologies (ICTs). This will help to solve the problems of ICTs skills among undergraduates.

2. It was also argued that lack of fund hinder the DIRs availability therefore, the researcher suggests that university management of institutions either Federal or State should provide enough funds, that is; government should vote a reasonable amount of fund to education, especially the library system, this will enable the library management buy all infrastructure and equipments needed for digital library to work effectively and efficiently.

3. Finally, effort should be made by the University and library management of both federal and state universities to minimize the challenges faced by undergraduates to access digital information resources.

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