



Postgraduate Students' Perception as Correlates of Electronic Information Resources Usage for Research in Universities in North-West, Nigeria

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Abstract

The study investigated the perception of postgraduate students as correlates of electronic information resources usage for research in universities in North-west, Nigeria. The study was guided by two research objectives, one research question and one research hypothesis. The population of the study consisted of 26,531 postgraduate students in 12 universities in North-west, Nigeria. The study employed descriptive correlational research design to elicit information from the respondents. Multi stage sampling procedure was used to select sample size of 530 postgraduate students from the population of 26,531 within the 12 universities. Structured questionnaire was used as an instrument for data collection. Out of 530 copies of structured questionnaire administered 499 copies were filled, returned and found to be usable. Data was analysed using descriptive and inferential statistics. To provide answer research question one, the study revealed that the perception of the postgraduate students to electronic information resources usage for research is positive with a weighted mean score of 2.785, Std=0.992. Hypothesis one tested showed that there is significant relationship between postgraduate students' perception and the electronic information resources usage for research with ($r= 0.28, P<0.05$). The study concluded that postgraduate students in universities in North-West Nigeria have positive perceptions of electronic information resources, which significantly influence their use for research projects, theses and dissertations. Universities and libraries should sensitize postgraduate students about electronic resources, invest in ICT infrastructure, provide reliable internet access, maintain databases, and offer customized support services. Regular monitoring, evaluation, and expanding electronic resource collections can enhance electronic information resources usage for research.

Keyword: Perception, electronic information resources, usage, research, postgraduate students

1.1 Introduction

A university's primary missions are teaching, learning, and research, whether it is a public or private institution of higher learning. Universities are the most suitable

institutions to be given the task of conducting research for national development. In view of the above, Osman and Kwafua (2020) stressed that universities all over the world have acted as catalysts for the growth of both their local

communities and the global community by disseminating existing knowledge through teaching and generating new knowledge through research that advances knowledge in various facets of human existence. On the other hand, university libraries, which act as the centre of their various institutions, have adopted common trends in information distribution to their users in an effort to enhance the teaching, learning, and research that take place there as well as to stay up with the current of worldwide research. The primary method of learning is research, which is a purposeful investigation into the uncharted territory of all human endeavours by subject-matter experts and professionals. In this regard, Peel (2020) claimed that research is an investigation carried out in order to learn new facts and obtain more information.

The production of postgraduate students' theses and dissertations, which are necessary for the award of postgraduate degrees in any field, is referred to in this study as research. Postgraduate students should concentrate on internalizing society's problems, according to the implication that they are individuals who examine society from the inside out to spot problem areas, collect information on pertinent subjects, assess it, and then recommend solutions. The most crucial element of postgraduate coursework is research (Adeniran and Onuoha, 2018).

Research is extremely important and cannot be emphasized enough because it is still the sole ongoing process through which human society has progressed and developed through the years. Research has been credited with contributing to human progress and development, particularly in our modern information age. It is a method of obtaining practical, reliable, and helpful knowledge about a certain research topic. In this regard, Blaikie and Priest (2019) emphasized that the importance of research and noted that its effects transcend all areas of human endeavour, including social, political, technological,

economic, and scientific. As a result, research advances knowledge, deepens understanding of various occurrences, offers solutions to issues, and helps to enhance various practices.

The submission of a standard research effort (theses or dissertations) to their departments will be the main determinant of whether postgraduate students will receive their final degrees. To complete required research assignments, postgraduate students will need information resources, especially electronic information resources. The best research tools for students at higher education institutions are electronic information sources. Daramola (2016) defines electronic information resources as those that are made available in electronic formats, including e-books, e-journals, online databases, e-theses, e-dissertations, electronic conference proceedings, electronic technical reports, electronic reference materials, CD-ROM databases, and computer-based electronic networks.

The term "using electronic information resources for research" as used in this study refers to completely using these resources to compile the data required to write projects, theses, and dissertations. Utilising electronic information sources enables quick, simple, accurate, and dependable access to the content that could be beneficial for learning. The use of electronic information resources (EIRs) can promote the desired research-led investigation in this digital age by facilitating innovation in research and speeding up postgraduate students' study. Any electronic resource in a library must serve as a source of pertinent information that users require for their study and other activities. If library resources don't meet users' objectives or goals for their study, the library won't fulfill its function (Onipade, 2019).

All library programmes and collections are built on the foundation that users use the resources effectively and efficiently. To do this, librarians must constantly consider users'

perceptions of accessing the electronic resources available in university libraries, especially postgraduate students. The perception of the electronic information resources available to postgraduate students includes their ideas, feelings, impressions, and comprehension of those resources. Postgraduate students' perceptions of the electronic information resources in the library determine their worth and rate of use. When users' views and opinions on the types of information resources and services are sought, the value of the library is best assessed. Librarians should also take the required steps to satisfy users' needs. However, the library administration will be guided and directed by the users' perceptions as to how to best offer information resources and services (Oriogu, et al. 2018).

1.2 Statement of the Problem

Information and Communication Technology advancements in the 21st century have significantly transformed information access, especially in academic environments like universities and libraries. Nigeria's universities have invested in electronic resources and computer-based technologies to facilitate postgraduate students' access to necessary information for academic scholarship.

Nevertheless, a significant gap exists in our comprehension of the perceptions held by postgraduate students and how these perceptions influence their actual usage of these electronic resources. Despite the increasing availability and accessibility of electronic information resources in universities in North-West, Nigerian, our understanding of how postgraduate students perceive and engage with these resources remains limited. This knowledge gap holds the potential to impact their research endeavors and academic success.

Furthermore, preliminary research and existing literature, such as the study conducted

by Lawal and Yahaya(2020) and **Nkamnebe et al. (2017)** reveal that patrons especially postgraduate students in most Nigerian university libraries infrequently utilize electronic information resources. Given the substantial investments made in acquiring and maintaining these resources, this underutilization represents an under-realized potential and diminished returns. This situation prompts an essential question: What factors contribute to this circumstance? This prevailing uncertainty has motivated the researcher to investigate the correlation between postgraduate students' perceptions and their actual usage of electronic information resources for research within universities in North-West Nigeria.

1.3 Aim and Objectives of the Study

The aim of the study is to investigate the postgraduate students' perception as correlates of electronic information resources usage for research in universities in North-west, Nigeria. The specific objectives of the study are to:

1. ascertain the perception of the postgraduate students to electronic information resources usage for research in universities in North-west, Nigeria;
2. find out the extent of electronic information resources usage for research among postgraduate students in universities in North-west, Nigeria;
3. ascertain if there is any relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria;

1.4 Research Hypothesis

The following null hypothesis was tested at 0.05 level of significance:

1. There is no significant relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria

2.1 Literature Review

Many studies have been carried out within and outside Nigeria on the perception of library users on the electronic information resource usage for research. Some of these studies that are relevant to this study have been selected to carry out this review as follows: Arilesere and Akinosho (2023) conducted a study on lecturers' awareness, perception, and utilization of institutional repositories (IRs) in two Nigerian universities. The research used a correlational design and a questionnaire, with 473 completed and returned. The findings showed positive perception (61.6%), and slight usage (51.4%). Three hypotheses were tested, and a significant positive relationship was found between awareness and IR usage, perception and IR importance, and awareness and perception of IRs' importance.

The study by Mustapha *et al.* (2023) investigated library users' awareness and perceptions of Online Public Access Catalogue (OPAC). A survey of 335 questionnaires was distributed, with 88.96 responses. The study found poor awareness of OPAC availability and under-utilization in the library. The study by Fasaie and Adekoya (2021) on awareness and perception of the academic staff of private universities towards the use of institutional repositories in Nigeria; found that academic staff have positive perception of institutional repositories. The findings suggest a significant relationship between awareness, perception, and use of institutional repositories among academic staff. Haque and Hoq (2018) examined student perceptions of electronic resources use in Rajshahi University Library, India. The study, which used a descriptive survey design and a questionnaire, found that 50% of students and 39.13% of respondents found electronic resources useful for study purposes. Ahmad *et al.* (2019) study on undergraduate students in Baramulla, Jammu and Kashmir, India, found that students have a

positive perception of e-resources compared to print sources. The study also found a relationship between age, perception, and electronic information resource use. Karan *et al.* (2016) compared online women's magazines to print in the United States, involving 275 respondents. The results showed online magazines were perceived as easier to read, skip ads, order products, search for information, save, share, and comment on articles. Khalid *et al.* (2017) study on Sultan Qaboos University students' perceptions of e-books found that while students have diverse experiences with e-books, they do not have a positive perception of electronic books over print for academic experiences.

Akerele (2020) conducted a study on the perception of library use among fresh undergraduates at Adeyemi College of Education, Ondo. The study found that students had a negative perception of the library, low awareness about library enrolment, and under use. However, a positive correlation was found between perception and library use. Ternenge and Kashimana (2019) examined the use of electronic information resources by students at the Francis SulemanIdachaba Library in Nigeria. The survey research design involved 7952 registered users and 381 students, with a Cronbach Alpha method reliability coefficient of 0.765. The study found that e-books, journals, CD-ROM databases, newspapers, and e-research reports were widely used for research.

3.1 Research Methodology

The study adopted descriptive correlational research design. The descriptive design was used to answer research question one and two while the correlational research design was adopted to established relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria. The population comprised of 26,531

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postgraduate students in universities in North-west, Nigeria. Multistage sampling was used for the study. Using proportionate sampling technique 530 was taken as sample size of the study. The study used structured questionnaire as the instrument for data collection. The study's data collection instrument was validated by three experts; pilot tested, and analyzed using the cronbach Alpha coefficient formula. The overall reliability coefficient was 0.88. The structured questionnaire was administered to

respondents in eleven (11) universities, and the data was analyzed using Pearson Product Moment Correlation (PPMC) using SPSS version 20.0.

4.1 Results and Discussion

Research question one: *What is the perception of postgraduate students to the electronic information resources usage for research in universities in North-west, Nigeria?*

Table 1. Postgraduate Students' Perception of the Electronic Information Resources Usage for Research

Statements	SA	A	D	SD	N	X	SD	Decision
	4	3	2	1				
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)				
1 Electronic information resources are readily available to be used for research and can be used simultaneously by unlimited numbers of users such as postgraduate students.	238 (47.7)	194 (47.7)	49 (9.8)	18 (3.6)	499	3.31	0.791	Agreed
2 The use of electronic information resources save my time in carrying out my research.	277 (55.5)	159 (31.9)	33 (6.6)	30 (6.0)	499	3.37	0.852	Agreed
3 Globalized usage of electronic information resources at any place and in any time add value to my research work.	245 (49.1)	191 (38.3)	46 (9.2)	17 (3.6)	499	3.33	0.781	Agreed
4 User friendly interface of interactivity of electronic information resources does not motivate conduct of my research.	65 (13.0)	158 (31.7)	164 (32.9)	112 (22.4)	499	2.44	1.671	Disagreed
5 Mixed features of electronic information resources such as commentary options and chatting do not help me in carrying out my research.	91 (18.2)	115 (23.0)	186 (37.3)	107 (21.4)	499	2.38	1.015	Disagreed
6 Lightness of electronic information resources does not encourage me to their usage for my ongoing research.	75 (15.0)	152 (30.5)	190 (38.1)	82 (16.4)	499	2.45	0.926	Disagreed
7 Compactness of electronic information resources in small storage devices inspired me to use them for research.	152 (30.5)	218 (43.7)	84 (16.8)	45 (9.0)	499	3.03	0.884	Agreed
8 Movability of Electronic information resources facilitates my research.	202 (40.5)	191 (38.3)	65 (13.0)	41 (8.2)	499	3.11	0.904	Agreed
9 Convenience of using electronic information resources would not benefit me any more in my on-going research.	102 (20.4)	125 (25.1)	128 (25.7)	144 (28.9)	499	2.27	1.097	Disagreed
10 I conceived that electronic information resources usage would not influence my research.	87 (17.4)	124 (24.8)	155 (31.1)	133 (26.7)	499	2.32	1.051	Disagreed
11 Ease of usability of electronic information resources enhanced my research.	181 (36.3)	183 (36.7)	67 (13.4)	68 (13.6)	499	3.19	0.879	Agreed
12 Ease to change format, size or style of electronic information resources does not speed up my research.	94 (18.8)	132 (26.5)	151 (30.3)	122 (24.4)	499	2.43	1.018	Disagreed
13 Electronic information resources are very easy to copy, retrieve, store and use for research.	191 (38.3)	130 (26.1)	103 (20.6)	75 (15.0)	499	3.17	0.931	Agreed
14 Ease of downloading and printing of electronic information resources does not add any value to the conduct of my research.	109 (21.8)	90 (18.0)	148 (29.7)	152 (30.5)	499	2.19	1.100	Disagreed
Weighted mean						2.785	0.992	Agreed

Key: SA = Strongly Agree, A = Agree, D = Disagree, DS = Strongly Disagree, N= Number of Questionnaire Retrieved, X = mean, Standard Deviation and Decision. (Weighted mean = 2.50)

Source: Field Survey (2023).

Table 1 showed respondents view on the perception of postgraduate students to the electronic information resources usage for research in universities in North-west, Nigeria. The results indicated that postgraduate students have a positive perception of using electronic information resources for research in universities in North-west, Nigeria. The item "the use of electronic information resources saves my time in carrying out my research" received the highest mean score of 3.37 and standard deviation of 0.852, followed by "globalized usage of electronic information resources at any place and in any time adds value to my research work" with a mean of 3.33 and standard deviation of 0.781. On the other hand, the item stating that "ease of changing format, size, or style of electronic information resources does not speed up my research" received the lowest mean score 2.19 and standard deviation of 1.100.

In general, out of fourteen items, seven indicated positive perceptions that were agreed upon by the respondents, while the other seven items reflecting negative perceptions were disagreed with. The weighted mean of all the items is 2.785, and the standard deviation is 0.992, which is above the benchmark, indicating a positive overall perception of postgraduate students towards using electronic information resources for research. This positive perception may be attributed to the belief that electronic resources save time, are compact and portable, and can be accessed globally, adding value to their research work. This finding corroborates the findings of Mustapha *et al.* (2023) who revealed positive perception of library users towards the use of online public access catalogue (OPAC) in a study conducted on the awareness and perception of library users towards the use of online public access catalogue (OPAC) in Bayero

University, Kano, Library. Oladokun (2022) reported positive perception of undergraduate students to the digital information resources in a study carried out on utilization of digital information resources by undergraduates at Lead City University, Ibadan Nigeria. In the same vein, Fasae and Adekoya (2021) examined awareness and perception of the academic staff of private universities towards the use of institutional repositories in Nigeria. *The findings of the study revealed that the academic staff had awareness and positive perception towards the use of the institutional repositories.* Ahmad *et al.* (2019) who surveyed the usage and perception of e-resources by undergraduate students; the findings revealed that students have positive perception towards e-resources in comparison to print sources. *However, the findings are in contrast with the findings of Bashorunet al. (2022); Okiki and Ireko (2022); Adenariwo (2022) and Sawyerr-Geogee et al. (2022) who all reported negative perception of library users toward usage of electronic information resource.* Also, Yusuf (2019) found the exhibition of negative perception among academic staff in a study conducted on the perception of the academic staff toward electronic databases for research productivity in Bayero University Kano.

Table 2: Extent of Electronic Information Resources Usage for Research Among postgraduate Students in Universities in North-west, Nigeria

Statements	VHE	HE	LE	VLE	N	X	SD	Decision
	4	3	2	1				
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)				
1 I use e-journals to find current articles that will assist me in my project, thesis, and dissertation writing or research work.	9 (1.8)	40 (8.0)	200 (40.1)	250 (50.1)	499	1.62	0.711	Low extent
2 I consult e-books to get relevant information for writing the background to the study of my research.	24 (4.8)	66 (13.2)	211 (42.3)	198 (39.7)	499	1.80	0.769	Low extent
3 I use electronic databases for getting information needed and desired that match my writing of thesis and dissertation	62 (12.5)	152 (30.5)	136 (27.3)	149 (29.9)	499	1.83	0.833	Low extent
4 I use electronic magazines for getting information that is very current and up-to-date for my research.	36 (7.2)	116 (23.2)	175 (35.1)	172 (34.5)	499	2.25	1.018	Low extent
5 I use e-theses and dissertations to identify gap, new research areas and determine method for my on-going research.	36 (7.2)	108 (21.6)	192 (38.5)	163 (32.7)	499	2.03	0.930	Low extent
6 I browse online public access catalogue to search and retrieve bibliographic records of electronic information resources used for my research	34 (6.8)	89 (17.8)	192 (39.3)	180 (36.1)	499	1.95	0.900	Low extent
7 I use electronic reference resources to find information about my topics of research and locate facts.	26 (5.2)	92 (18.4)	179 (35.9)	202 (40.5)	499	1.88	0.886	Low extent
8 I explore e-newspapers to obtain very current information needed for my research.	87 (17.4)	151 (30.3)	144 (28.9)	117 (23.4)	499	2.42	1.030	Low extent
9 I use any other electronic information resources at my disposal in the university library for my research purposes.	71 (14.2)	102 (20.4)	146 (29.3)	180 (36.1)	499	2.13	1.058	Low extent
Weighted Mean						1.99	0.903	Low extent

Key: VHE = very High extent, HE = High Extent, LE = Low Extent, VLE = Very Low Extent, N= Number of Questionnaire Retrieved, X = means, Standard Deviation and Decision. (Weighted mean = 2.50)

Source: Field survey (2022)

Table 2 revealed that the extent of electronic information resource usage for research among postgraduate students in universities in the North-west, Nigeria is low. E-newspapers have the highest mean score of 2.42 and standard deviation of 1.030, while e-journals for finding current articles have the lowest mean score of 1.62 and standard deviation of 1.018. Overall, the weighted mean score for electronic resource usage is 1.99 and 0.903, falling below the benchmark of 2.50, indicating a low extent of electronic information usage for research among

postgraduate students in universities in the North-west, Nigeria. Possible reasons include a lack of awareness about electronic information resources availability and poor internet connectivity.

This finding is in consonance with the findings of Onuoha *et al.* (2020) who investigated the availability and utilisation of e-resources in university libraries for effective research output by undergraduates of Social Studies in south-east, Nigeria. The results showed among others that students use electronic library resources but not to the

maximum because they lack ICT skills and do encounter problems while using them. It is in consonance with the findings of Adeleke and Nwalo (2017) who studied availability, use and constraints to the use of electronic information resources by postgraduate students at the University of Ibadan. The results indicated that Internet was ranked most available in the university and found low level of usage of electronic resources. On the other hand, the finding is in contrast with the findings of Ternenge and Kashimana (2019) who reported that *e-books, e-journals, CD-ROM databases, e-newspapers, and e-research reports were utilised for research by students in Francis SulemanIdachaba Library to a great extent.*

4.2 Hypothesis Tested

Hypothesis One

H0₁. There is no significant relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria.

To test the hypothesis and analyze the data, Pearson's Product Moment Correlation (PPMC) was used. A correlation test was carried out by associating both the postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria. The result of the analysis is presented in Table 3:

Table 3. Relationship between Postgraduate Students' Perception and the Electronic Information Resources Usage

Variables	N	M	SD	Df	R	p-value
Perception	499	39.19	5.53			
Electronic information resources usage for research	499	18.42	4.40	497	0.279	0.001

($r = 0.28$, $Df = 497$, $P < 0.05$)

The result presented in the table 3 indicates the relationship between the postgraduate students' perception and the electronic information resources usage for research. The relationship was found to be significant with ($r = 0.279$, $Df = 497$, $P < 0.05$). This implies that there is significant relationship between the postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria. Therefore, the null hypothesis which states that there is no significant relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria is rejected. This finding corroborated with the findings of Arilesere

and Akinosho (2023) who investigated the lecturer's awareness, perception, and utilization of institutional repositories in two universities in Nigeria. The universities include Ahmadu Bello University, Zaria, and the University of Jos. The finding revealed that majority of the lecturers slightly utilized IRs 243 (51.4%) for depositing scholarly materials.

During the study, three hypotheses were tested and the findings from the hypotheses revealed that there was a positive significant relationship between awareness and utilization of IRs, perception, and utilization of IRs. In the same vein, Fasae and Adekoya (2021) investigated the awareness and perception of the academic staff of private universities towards the use of institutional

repositories in Nigeria. The findings of the study revealed that the academic staff had positive perception towards the use of the institutional repositories. This study found that IRs contents are very relevant to the needs of the academic staff of private universities, and the institutional repositories were adequately used. The hypotheses tested revealed that there was a significant relationship between perception, and use of institutional repositories by academic staff of private universities.

5.1 Summary of the Findings

1. The perception of the postgraduate students to the electronic information resources usage for research in universities in North-west, Nigeria is positive.
2. The extent of electronic information resources usage for research among postgraduate students in universities in North-west, Nigeria is low.
3. There is significant relationship between postgraduate students' perception and the electronic information resources usage for research in universities in North-west, Nigeria.

Conclusion

In conclusion, this study found that postgraduate students in North-West Nigerian universities hold positive views of electronic information resources, recognizing their value in enhancing research and academic achievements. Furthermore, the research revealed a significant and meaningful correlation between these positive perceptions and the students' actual utilization of electronic information resources for their research endeavors.

Recommendations

Based on the findings of study and the conclusion drawn, universities and libraries should sensitize postgraduate students about

electronic resources, invest in ICT infrastructure, provide reliable Internet access, maintain databases, and offer customized support services. Regular monitoring, evaluation, and expanding electronic resource collections can enhance electronic information resources usage for research.

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