

AVAILABILITY AND UTILIZATION OF INFORMATION RESOURCES FOR
ENHANCED ACADEMIC PRODUCTIVITY AMONG POSTGRADUATE
STUDENTS IN NOUN STUDY CENTRES IN NORTH CENTRAL NIGERIA

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Abstract Academic productivity is significantly influenced by access to and utilization of quality information resources. The availability and effective use of library resources enhance postgraduate students' research output and learning experiences. This study examines the availability and utilization of information resources by postgraduate students in NOUN study centres in North Central Nigeria. The study employed a descriptive survey design with a population of 1,025 postgraduate students. Given the manageable size of the population, all 1,025 students were included in the study, eliminating the need for further sampling. A purposive sampling technique was used to select the NOUN study centres in North Central Nigeria. Data collection instruments included an observation checklist and a structured questionnaire comprising three sections: demographic information, availability of resources, and utilization of resources. The questionnaire consisted of three parts, each addressing specific research questions. Data were analyzed using frequency counts, mean scores, and standard deviation. The findings revealed that various information resources are available in the libraries, with textbooks, dictionaries, directories, treaties, encyclopedias, and handbooks being the most accessible. Postgraduate students primarily utilize textbooks, databases, wide area networks, communication with colleagues, and digital libraries. Despite the availability of resources, challenges such as inadequate electronic resources and outdated materials persist. The study recommends increasing access to digital resources, improving ICT infrastructure, and enhancing library services to promote academic productivity. The status of any university, including the National Open University of Nigeria (NOUN), is determined by its academic productivity.

Keywords: Availability, Information Resources, Postgraduate Students, Utilization, Academic Productivity, NOUN

Introduction

Academic productivity is the ability to conduct high-quality research and produce scholarly work and it is inherently linked to the availability and effective utilization of information resources. In today's knowledge-driven academic environment, access to current and relevant materials in both print and electronic formats is vital for innovation and excellence (Onifade, Ogbuiyi, & Omeluzor, 2013). Libraries are central to this process, serving as repositories of scholarly information and facilitating research through user education and robust ICT integration (Ogu, 2014).

The National Open University of Nigeria (NOUN) has long been recognized as a pioneer in open and distance learning, offering postgraduate programs that demand rigorous research skills (Ijantiku, 2018). NOUN study centre libraries are expected to support these endeavors by providing a comprehensive array of information resources. However, despite recent efforts such as the introduction of digital repositories and improved internet access, concerns remain regarding the adequacy and effective utilization of these resources (Anyago, 2019). Moreover, the contemporary state-of-the-art in academic libraries globally is characterized by rapid digital transformation, where modern libraries integrate extensive electronic databases, e-books, and remote access tools to support user needs (Otubelu, 2020). In contrast, many Nigerian institutions, including NOUN, continue to face challenges such as limited funding, outdated materials, and insufficient ICT infrastructure, which ultimately hinder academic productivity.

Scope of the Study

This research focuses on postgraduate students in NOUN study centres across North Central Nigeria. It examines the availability of both traditional (print) and modern (electronic) information resources, assesses the extent of their utilization, and identifies the factors hindering effective use of information resources. The findings are intended to inform policymakers, academic administrators, and library managers in their efforts to enhance resource provision and support postgraduate research.

Literature Review

Information resources play an essential role in supporting academic productivity, as they provide students with access to scholarly materials, research findings, and educational

materials necessary for coursework and independent study. Various studies have emphasized the importance of information resources in postgraduate education (Ogu, 2014; Bitagi, 2014).

University libraries serve as a primary source of academic resources, including textbooks, journals, databases, and electronic materials. The effectiveness of these libraries in supporting students largely depends on the availability and accessibility of these resources. Onifade et al. (2013) found that postgraduate students heavily rely on textbooks, journals, and digital databases for research and academic work. However, access to these materials varies, with challenges such as outdated library collections, limited subscription to academic databases, and insufficient ICT infrastructure impeding optimal resource utilization (Ijantiku, 2018).

Several studies have identified factors affecting the availability and utilization of library resources. Anyaogu (2019) highlighted the role of library orientation and user education in promoting effective utilization of available resources. In contrast, Otubelu (2020) suggested that limited funding, lack of digitization, and inadequate user awareness hinder students from making the best use of library facilities. Furthermore, access to digital resources is crucial in today's academic environment, where online research plays a significant role in scholarly activities. Libraries must, therefore, prioritize the acquisition of electronic databases, e-books, and other digital materials to meet the evolving needs of postgraduate students (Bitagi, 2014).

Additionally, the integration of information and communication technology (ICT) in academic libraries has significantly impacted resource utilization. Libraries that provide well-structured digital platforms, online search tools, and remote access to resources have reported higher levels of student engagement and research productivity (Ogu, 2014). However, in many Nigerian university libraries, including NOUN study centres, inadequate ICT infrastructure and poor internet connectivity remain significant barriers to effective resource utilization (Ijantiku, 2018).

Efforts to enhance the availability and utilization of information resources should include strategic investments in digital libraries, improved training for students on information search skills, and increased funding for library expansion. Studies indicate that postgraduate students in institutions with well-equipped libraries tend to produce higher-quality research output compared to those with limited access to academic resources (Onifade et al., 2013).

The need for institutional support in improving library services is crucial, as academic productivity is directly linked to the quality of resources available to students. Universities must, therefore, adopt proactive measures such as expanding electronic library services, increasing access to high-impact academic databases, and conducting periodic evaluations to assess students' satisfaction with library services (Otubelu, 2020).

Statement of the problem

Academic productivity among postgraduate students is fundamentally influenced by the availability and effective utilization of information resources. At NOON study centres in North Central Nigeria, while traditional print materials such as textbooks, dictionaries, encyclopedias, and directories are generally available, there is a marked deficiency in modern digital resources and supportive ICT infrastructure. This imbalance is compounded by challenges such as inadequate funding, outdated collections, and limited access to electronic databases, poor internet connectivity, and insufficient user training, all of which hinder the optimal utilization of available resources.

Despite the critical importance of these factors in enhancing academic productivity, previous studies have predominantly focused on other Nigerian institutions or have examined availability and utilization in isolation. There is a significant research gap regarding how these challenges collectively affect postgraduate students' academic performance specifically at NOON study centres. Addressing this gap is essential, as it will enable targeted improvements in library services and resource management, ultimately fostering a more conducive academic environment and enhancing overall research output.

Purpose of the Study

The main purpose of the study is to examine the availability and utilization of information resources by postgraduate students in NOUN study centers in North Central, Nigeria.

Research Question

The study seek to find answers to the following question:

1. What are the available information resources in NOUN study centre libraries in North Central, Nigeria?

2. What is the extent of utilization of information resources by the postgraduate students in NOUN study centres in North central Nigeria?
3. What are the factors that hinder effective availability and utilization of library resource for enhanced academic productivity in the study area?

Methodology

A descriptive survey design was employed in this study, targeting the entire population of 1,025 postgraduate students at NOUN study centres. Given the manageable size of the population, as noted by Nworgu (2016), all 1,025 students were included in the study, eliminating the need for further sampling. Additionally, a purposive sampling technique was used to select the NOUN study centres in North Central Nigeria. Specifically, the centres in Jos, Makurdi, Ilorin, Abuja, Minna, Lokoja, and Lafia were chosen because they represent key NOUN locations that span across different states in the North Central geographical zone of Nigeria. The instrument for data collection was a checklist and a questionnaire. The response options were; AU- Available and Usable, and ANU- Available, and Not Usable, NA- Not Available for the checklist, : Low extent (LE), Undecided (UD), High Extent (HE), Very High Extent (VHE) Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), Strongly Agree responses for the questionnaire respectively. Data collected was analysed using frequency count, mean scores and standard deviation.

Table 1: Observational Checklist on availability of information resources in Seven NOUN Centres

S/ N	Information Resources	AU	ANU	NA	Remark
1	Poems	0%	12.5%	87.5%	NA
2	Storybooks	0%	0%	100%	NA
3	Play books	0%	0%	100%	NA
4	Novels	0%	0%	100%	NA
Non – fiction Information Resources					
5	Textbooks / monographs	100%	0%	0%	AU
6	Treatise	100%	0%	0%	AU
Reference Information Resources					
7	Directories	0%	0%	100%	NA
8	Encyclopedias	100%	0%	0%	AU
9	Dictionaries	100%	0%	0%	AU
10	Bibliographies	87.5%	0%	12.5%	AU

13	Maps/ Atlas	12.5%	0%	87.5%	NA
14	Guides	0%	0%	100%	NA
15	Abstract	12.5%	0%	87.5%	NA
16	Indexes	12.5%	0%	87.5%	NA
17	Handbooks / manuals	100%	0%	0%	AU
Government publications					
18	Gazettes	75%	25%	0%	AU
19	Presidential / Executive Proclamations	62.5%	37.5%	0%	AU
20	National policies	50%	0%	50%	AU
Grey Literature					
21	Dissertations / thesis/projects	100%	0%	0%	AU
22	Conferences/workshops /Technical Reports	100%	0%	0%	AU
Serials					
23	Newspapers / magazines	100%	0%	0%	AU
24	Journals	100%	0%	0%	AU
25	Review publications	100%	0%	0%	AU
26	Bulletins	87.5%	0%	12.5%	AU
AV/ICT/e-Resources					
27	C.D-ROM / DVD – ROM	75%	25%	0%	AU
28	Computers	100%	0%	0%	AU
29	online databases	100%	0%	0%	AU
30	Local Area Network (LAN)	87.5%	0%	12.5%	AU
31	Wide Area Network (WAN)	37.5%	0%	62.5%	NA
32	Wireless Internet Access	62.5%	25%	12.5%	AU
33	Projectors	75%	25%	0%	AU
34	Projectors screen	75%	25%	0%	AU
35	Printer	100%	0%	0%	AU
36	Photocopying machine	100%	0%	0%	AU
37	Machine readable catalogue (MARC)	0%	12.5%	87.5%	NA
38	Online public access catalogue (OPAC)	12.5%	0%	87.5%	NA
39	E-books	100%	0%	0%	AU
40	E-journals	100%	0%	0%	AU
41	Digital library	100%	0%	0%	AU
42	Bookshops	0%	0%	100%	NA
Oral information sources					
43	References queries	100%	0%	0%	AU
44	Communication with colleagues / lecturers	100%	0%	0%	AU

Key, AU= Available and Usable, ANU=Available and Not Usable, NA=Not Available

Source: Field Study 2023

Table 1 shows the available information resources for utilization by the postgraduate students in NOUN. It can be seen that forty four (44) information resources (items) were

considered during the research conducted using seven NOUN libraries. Out of the items considered, 31 (items) were available while thirteen (13) were not available. These available information resources comprises: Text books, Dictionaries, Directories, Treaties, Encyclopedias, Handbooks, Dissertations, Newspapers, Journals, Review Publications, computers, online databases, printers, photocopying machines, eBooks, e-journals, digital libraries, reference queries, communication with colleagues all recorded 100% availability. Bibliographies, bulletins, Local Area Network (LAN) all recorded 87.5%. CD-ROM and Gazettes 75%, Wireless internet with 62.5%. Information Resources like Storybooks, Play books, Novels, Dictionaries, Guides, Bookshops were 100% not available. Machine Readable Catalogue (MARC), Online Public Access Catalogue, Indexes, Abstracts, Maps/ Atlases all recorded 87.5 % non-availability. Poems 87.2 % and Wide Area Network 62.5% respectively non available.

Table 2: Extent of Utilization of Information Resources by postgraduate students

Extent of Utilization of Information Resources	N	NE	LE	UD	HE	VHE	Mean	SD	Rmks
Poems	1008	234	245	78	342	109	2.85	2.68	UD
Storybooks	1008	198	234	4	351	221	3.16	2.91	UD
Play books	1008	18	341	5	441	203	3.47	1.49	HE
Novels	1008	25	201	52	429	301	3.77	1.27	HE
Textbooks /Monographs	1008	3	56	3	579	367	4.24	3.78	VHE
Treatise	1008	45	159	14	322	468	4.00	3.68	HE
Directories	1008	233	321	1	421	32	2.70	2.51	UD
Encyclopedias	1008	32	340	0	361	275	3.50	3.23	HE
Digest	1008	25	201	52	429	301	3.77	3.43	HE
Dictionaries	1008	198	234	4	351	221	3.16	3.01	UD
Bibliographies	1008	72	844	7	58	27	2.13	1.72	LE
Decrees	1008	198	224	13	352	221	3.17	3.02	UD
Statutes	1008	25	201	52	429	301	3.77	3.43	HE
Maps/ Atlas	1008	192	224	8	353	231	3.21	3.05	UD
Guides	1008	197	213	10	362	226	3.21	2.28	UD
Abstract / Indexes	1008	32	340	7	361	268	3.49	3.21	HE
Indexes	1009	20	201	32	427	329	3.84	3.49	HE
Search / finding tools	1008	22	201	31	426	328	3.83	3.49	HE
Handbooks / manuals	1008	25	201	52	429	301	3.77	3.43	HE
Gazettes	1008	72	844	7	58	27	2.13	1.72	LE
Reports	1009	20	201	32	427	329	3.84	3.49	HE
Presidential / Executive Proclamations	1008	198	224	13	352	221	3.17	3.02	UD

National policies	1008	32	340	0	361	275	3.50	3.23	HE
Judicial publications	1008	32	340	6	361	269	3.49	3.22	HE
Dissertations / thesis/projects	1008	25	201	52	429	301	3.77	3.43	HE
Conferences/workshops / seminar papers	1008	20	201	31	427	329	3.84	3.49	HE
Newspapers / magazines	1008	4	321	4	244	435	3.78	3.49	HE
Journals	1008	1	201	2	439	365	3.96	3.59	HE
Review publications	1008	7	299	42	429	231	3.57	3.25	HE
Databases	1008	0	104	38	479	387	4.14	3.72	HE
Library based software	1008	32	340	6	361	269	3.49	3.22	HE
Local Area Network (LAN)	1008	103	121	48	409	327	3.73	3.45	HE
Wide Area Network (WAN)	1008	4	141	3	431	429	4.13	3.73	HE
Wireless Internet Access	1008	8	142	38	429	391	4.04	3.66	HE
Printer	1008	32	302	48	429	197	3.45	3.15	HE
Photocopying machine	1008	59	243	45	429	232	3.53		HE
Machine readable catalogue (MARC)	1008	87	185	4	429	303	3.67	3.39	HE
Online public access catalogue (OPAC)	1008	81	261	34	398	234	3.44	3.18	HE
E-books	1008	0	301	1	409	297	3.70	3.37	HE
E-journals	1008	3	221	2	461	321	3.87	3.51	HE
Digital library	1008	41	101	28	472	366	4.01	3.64	HE
University Bookshop	1008	4	210	45	438	311	3.84	3.47	HE
References queries	1008	35	421	42	79	431	3.45	3.25	HE
Communication with colleagues / lecturers	1008	0	128	47	429	404	4.10	3.70	HE

Key: Low extent (LE), Undecided (UD), High Extent (HE), Very High Extent (VHE)

Source: Survey, 2023

Table 2 above presents the extent of utilization of information resources by the postgraduate students. The responses indicates that; textbooks/monographs had an agreed mean score of ($\bar{x}$ 4.24), followed by databases($\bar{x}$ 4.14), wide area network ($\bar{x}$ 4.13) communication with colleagues($\bar{x}$ 4.10) journals ($\bar{x}$ 3.96), e-journals ($\bar{x}$ 3.87) indexes, reports, conferences/workshops/seminar papers and university workshop ($\bar{x}$ 3.84) respectively among other rankings. The students disagreed on the use of reports and bibliographies with a mean score of ($\bar{x}$ 1.72) which ranked the least.

Table 3: Factors Hindering Availability and Utilization of Library Resources

Factors hindering availability of information resources and utilization	N	SD	D	UD	A	SA	Mean	SD	Rmks
Lack of basic information search skills	1008	17	90	59	745	97	3.81	3.37	A

Inadequate relevant materials in the library	1008	99	67	39	242	561	4.09	3.79	A
High cost of information sources and services	1008	45	121	23	613	206	3.81	3.43	A
Limited access to computers	1008	75	130	53	612	138	3.60	3.26	A
Slow internet response	1008	45	121	23	613	206	3.81	3.43	A
Unconducive library environment	1008	157	201	5	431	214	3.34	3.13	UD
Electricity interruption	1008	99	168	31	501	209	3.55	3.26	A
Poor conduct of user education	1008	75	130	53	612	138	3.60	3.26	A
Lack of information retrieval tools	1008	4	204	32	467	301	3.85	3.48	A
Incomplete information materials	1008	45	121	23	613	206	3.81	3.43	A
Information materials highly unorganized in the library	1008	56	209	53	431	259	3.62	3.32	A
Heavy reliance on lecture notes/ study packs provided by the university	1008	0	49	34	541	384	4.25	3.79	SA
Inadequate staff to attend to users	1008	45	121	23	614	205	3.81	3.43	A
Paucity of desired resources	1008	0	49	34	561	364	4.23	3.77	SA
Difficult to know when new materials are acquired	1008	42	125	22	613	206	3.81	3.43	A

Key: Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), Strongly Agree

Source: Survey 2023

Table 3 presented result on the factors hindering availability and utilization of library resources by the students in the study. The result indicated; Heavy reliance on lecture notes/ study packs provided by the university ($\bar{x}$ 4.25) Paucity of desired resources ($\bar{x}$ 4.23) Lack of information retrieval tools ($\bar{x}$ 3.85), Lack of basic information search skills, Difficult to know when new materials are acquired, Inadequate staff to attend to users , Incomplete information materials, Slow internet response, Lack of basic information search skills, High cost of information sources and services ($\bar{x}$ 3.81) respectively.

Discussion of Findings

The observation of NOUN study centre libraries confirms that a broad spectrum of information resources is available to postgraduate students. Traditional print materials such as textbooks, dictionaries, directories, treaties, encyclopedias, and handbooks were widely observed, which aligns with previous findings by Ogu (2014) that emphasize the continued importance of print resources in Nigerian academic libraries. In addition, research-oriented

items including dissertations, theses, journals, and review publications were found to be well represented, supporting the work of Onifade, Ogbuiyi, and Omeluzor (2013) who noted that such resources form the backbone of academic research. However, the noticeable absence of certain digital tools (e.g., MARC, OPAC, electronic indexes, and some e-resources) highlights a gap similar to that noted by Bitagi (2014), who reported limited investment in modern digital infrastructures in many Nigerian institutions.

Postgraduate students in this study demonstrated extensive use of the available core academic resources. They frequently rely on textbooks/monographs, digital databases, and online platforms to support their research activities, a finding that corroborates earlier studies by Onifade et al. (2013). The high usage of these resources suggests that students prioritize materials that directly support their academic needs. In contrast, underutilization of resources such as bibliographies and certain government publications echoes the observations of Anyaogu (2019), who argued that these resources are often overlooked due to limited awareness or perceived irrelevance. These patterns indicate a consistent trend across Nigerian academic libraries where students leverage familiar and accessible resources while digital advancements remain underexploited.

Several critical barriers emerged from the study that hinder the effective availability and utilization of library resources. The challenge of inadequate funding, which limits the acquisition of up-to-date materials, mirrors the concerns raised by Bitagi (2014) regarding financial constraints affecting library collections. The presence of outdated materials and insufficient electronic resources further aligns with findings by Otubelu (2020), who emphasized the necessity for modern ICT infrastructure and continuous resource updates to meet current academic demands. Additionally, factors such as poor internet connectivity, limited user education, and inadequate staffing were identified as impediments to effective resource use. These barriers support earlier research (Ijantiku, 2018) that highlights infrastructural and operational shortcomings in many Nigerian academic libraries. The collective impact of these challenges suggests that while traditional resources remain valuable, the full potential of modern, digital information resources is not being realized; a gap that underscores the need for targeted improvements as previously advocated by Ogu (2014) and Otubelu (2020).

Conclusion

Based on the findings of this study, it is evident that NOON study centres in North Central Nigeria offer a wide range of information resources, particularly in traditional print formats such as textbooks, dictionaries, encyclopedias, and directories. These resources are well utilized by postgraduate students for their research and academic activities. However, the study also revealed significant challenges that hinder the effective utilization of library resources. Key issues include inadequate funding, outdated materials, and limited access to modern electronic resources, poor ICT infrastructure, and insufficient user training. These barriers restrict students from fully benefiting from available resources, thereby negatively impacting academic productivity.

The results underscore that while the foundation of traditional library resources is strong, there is a critical need to invest in and upgrade digital resources and ICT infrastructure to keep pace with current academic demands. Enhanced funding and strategic initiatives to modernize library services coupled with comprehensive user education are essential to overcoming these challenges. In doing so, NOON can create a more conducive academic environment that not only supports the research and learning needs of postgraduate students but also elevates the institution's overall academic productivity. Future research should explore the long-term effects of such interventions on student outcomes and consider comparative analyses with other institutions to further refine best practices in library resource management.

Recommendations

Based on the study's findings, the following recommendations are proposed to enhance the availability and utilization of information resources for improved academic productivity among postgraduate students at NOUN study centres in North Central Nigeria:

1. Allocate additional financial resources specifically for updating library collections. This includes acquiring current academic texts, subscribing to reputable digital databases, and investing in modern electronic resources to bridge the gap between traditional and digital offerings.

2. Modernize the library's technological facilities by installing advanced ICT tools such as high-speed computers, improved digital catalogues, and reliable network systems. Enhancing the overall ICT infrastructure will facilitate smoother access to digital resources and support remote learning.
3. Increase the acquisition of electronic resources including e-books, e-journals, and online databases. Efforts should also be made to integrate digital platforms (such as remote access portals and online search tools) that allow postgraduate students to access resources beyond the physical confines of the library.
4. Enhance the quality and reliability of internet access within the study centres. Robust connectivity is critical for accessing digital libraries and online academic resources, thereby enabling more effective research and learning.
5. Implement regular training sessions and orientation programs to improve students' skills in navigating library systems, using electronic databases, and effectively retrieving information. This should include workshops on advanced search techniques and the use of digital catalogues.
6. Recruit and train additional library personnel to provide more effective user support. A well-staffed library can offer personalized assistance, conduct frequent user orientation sessions, and ensure that resources are well maintained and easily accessible.
7. Adjust library schedules to offer longer operating hours that better accommodate the varied academic demands of postgraduate students. Extended hours will provide greater flexibility and ensure that students have sufficient time to access resources as needed.
8. Establish regular reviews and evaluations of library collections to ensure that materials remain current and relevant. Developing a strategic plan for resource acquisition and maintenance can help to systematically address the gaps in both print and digital collections.

By implementing these recommendations, NOUN can create a more supportive academic environment that enhances the efficient use of its information resources, thereby improving the research and learning outcomes of its postgraduate students.

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