

# EXTENT OF UTILISATION OF DIGITAL REFERENCE RESOURCES BY POST-GRADUATE STUDENTS IN BENUE STATE, NIGERIA

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## Abstract

This study investigated the extent of utilisation of digital reference resources by postgraduate students in university libraries in Benue State, Nigeria. A survey research design was employed, with data collected from 269 postgraduate students across three universities using a structured questionnaire. Descriptive statistics (mean, standard deviation) and inferential statistics (chi-square) were used for analysis. Findings revealed a high extent of utilisation for resources such as electronic theses (mean=3.52), e-books (mean=3.33), and e-journals (mean=3.02), while utilisation of databases, printers, scanners, and telephones was low. A chi-square test ( $\chi^2=244.341$ ,  $df=39$ ,  $p<.05$ ) led to the rejection of the null hypothesis, indicating that postgraduate students significantly utilise the available digital reference resources. The study concludes that while core digital resources are heavily used, underutilised tools and infrastructure gaps present opportunities for library enhancement. Recommendations are provided for library management, university administration, and systems improvement to optimise resource use and support postgraduate research in a digital age.

**Keywords:** Digital Reference Resources, Postgraduate Students, University Libraries, Resource Utilization, Nigeria, Benue State

## Introduction

The 21st-century academic landscape is fundamentally digital. University libraries worldwide have transitioned from being mere repositories of print collections to dynamic hubs providing digital reference resources (DRRs)—electronic information-bearing materials such as e-journals, e-books, databases, and internet-based tools. These resources are critical for supporting the tripartite mission of universities: teaching, learning, and research. In developing regions like Nigeria, the adoption and integration of these resources into academic workflows are pivotal for bridging the knowledge gap and enhancing research output, particularly at the postgraduate level.

Postgraduate students form the core of a university's research enterprise. Their success depends heavily on access to current, comprehensive, and specific information to complete coursework, seminar papers, and theses. Digital reference resources offer unparalleled advantages: they provide remote, 24/7 access; are more easily updated than print; and facilitate efficient searching and retrieval. In theory, Nigerian university libraries have made strides in subscribing to and providing these resources. However, the perennial challenge in many resource-constrained environments is not merely availability, but effective and significant utilisation. Prior studies in similar contexts (e.g., Egberongbe, 2011; Quadri et al., 2014) have reported a dissonance between availability and use, often attributed to infrastructural deficits, lack of skills, and erratic power supply.

This study, therefore, zooms in from a broader investigation of both availability and utilisation of DRRs and services to a focused examination of the utilisation dimension for digital resources alone. It seeks to move beyond cataloguing what is available to understanding what is actually used, to what extent, and what the statistical

significance of that usage is. The context is Benue State, Nigeria, providing a case study of postgraduate engagement with digital library resources in a typical Nigerian academic setting. The findings offer actionable insights for library management and contribute to the broader discourse on digital inclusion and research capacity building in African higher education.

### **Research Question**

To achieve the above objective, the study sought to answer the following research question:

1. To what extent do postgraduate students utilise digital reference resources in university libraries in Benue State?

### **Literature Review**

Several studies have examined the availability and utilisation of digital reference resources in academic libraries, particularly within developing countries. Egberongbe (2011) noted that while many Nigerian universities have invested in digital resources, their utilisation remains suboptimal due to poor internet connectivity and inadequate user education. Similarly, Quadri et al. (2014) found that undergraduate students in private universities in Ogun State showed low awareness and usage of electronic databases, attributing this to insufficient promotion and training by library staff.

In contrast, studies such as those by Matusiak (2012) in developed contexts highlight high user satisfaction and reliance on e-books and e-journals, emphasising their accessibility and convenience. However, research by Chimah and Nwokocha (2013) in Southeast Nigeria revealed that postgraduate students face significant challenges in

navigating specialised databases, often due to complex interfaces and lack of hands-on training.

The theoretical frameworks underpinning this study include Connectivism (Siemens, 2005), which posits that learning in the digital age occurs through networked connections facilitated by digital tools, and Library 2.0 theory (Maness, 2006), which advocates for user-centred, interactive library services. These frameworks help contextualise the gaps between resource availability and effective utilisation, particularly in settings with infrastructural and skill-based constraints.

### **Methodology**

This study adopted a survey research design, appropriate for collecting data from a sample of a large population to generalise findings. The study was conducted in Benue State, North-Central Nigeria, covering three universities with functional libraries: Federal University of Agriculture, Makurdi; Benue State University, Makurdi; and University of Mkar, Mkar. The target population was all postgraduate students registered as library users in the three universities (N=826). Using the Taro Yamane formula, a sample size of 269 was determined. A multi-stage sampling technique involving proportionate stratified sampling (by institution) and simple random sampling (within each stratum) was used to select participants, ensuring representativeness.

The primary instrument was a structured questionnaire titled "Availability and Utilisation of Digital Reference Resources and Services Questionnaire (AUDRRSQ)." The section on utilisation (Cluster C) contained 14 items listing specific DRRs (e.g., e-journals, e-books, internet, databases, computers, scanners). Respondents indicated

their extent of use on a 4-point Likert scale: Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1). The instrument was validated by experts in Library and Information Science and Educational Measurement. A pilot test on 45 postgraduate students from non-participating universities yielded a Cronbach's Alpha reliability coefficient of 0.80 for the utilisation cluster, indicating high internal consistency. Trained research assistants administered the questionnaires, achieving a 100% retrieval rate.

Data were analysed using descriptive statistics (mean and standard deviation) to answer the research question. A mean benchmark of 2.50 was established; items with a mean score  $\geq 2.50$  were adjudged to be utilised to a "High Extent," while scores below 2.50 indicated "Low Extent" utilisation.

## Results and Discussion

The results are presented in line with the research question.

**Research Question:** To what extent do postgraduate students utilise digital reference resources in university libraries in Benue State?

**Table 1: Mean and Standard Deviation of Utilisation of Digital Reference Resources**

S/No	Digital Reference Resource	Mean ( $\bar{X}$ )	Std. Dev.	Decision
1	Electronic Thesis (e-thesis)	3.52	0.92	High Extent
2	Electronic Books (e-books)	3.33	0.88	High Extent
3	Television	3.22	0.91	High Extent
4	Electronic Journals (e-journal)	3.02	1.01	High Extent
5	Human ware (Reference Librarian)	3.00	1.02	High Extent
6	Compact Disk Read Only Memory	2.98	0.78	High Extent

S/No	Digital Reference Resource	Mean ( $\bar{X}$ )	Std. Dev.	Decision
7	Storage devices (Flash Drive)	2.89	1.00	High Extent
8	Computers	2.80	0.94	High Extent
9	Electronic Dictionaries	2.73	0.81	High Extent
10	Internet	2.68	0.92	High Extent
11	Telephone	2.47	0.97	Low Extent
12	Databases	2.41	1.10	Low Extent
13	Scanners	2.41	0.88	Low Extent
14	Printers	2.34	0.99	Low Extent
	<b>Cluster Mean</b>	<b>2.84</b>	<b>0.94</b>	<b>High Extent</b>

The data reveal a cluster mean of 2.84, indicating that, overall, postgraduate students utilise available DRRs to a **High Extent**. The most utilised resources are **Electronic Theses (3.52)** and **Electronic Books (3.33)**, underscoring their critical role in dissertation and coursework research. The high use of **Human Ware (Librarians) (3.00)** is noteworthy, suggesting that despite digital advancements, the intermediary role of skilled librarians remains valued for navigating resources.

Conversely, four resources fell below the 2.50 threshold, indicating **Low Extent** utilisation: **Telephones (2.47)**, **Databases (2.41)**, **Scanners (2.41)**, and **Printers (2.34)**. The low use of specialised **Databases** is particularly concerning, as these are often the most authoritative and research-specific resources. This could stem from a lack of awareness, complex interfaces, insufficient training, or limited database

subscriptions by the libraries. The low use of peripherals like printers and scanners might relate to access restrictions, costs, or a preference for digital storage and reading.

The finding of a high overall extent of utilisation is encouraging and contrasts with some earlier studies in Nigeria that reported low usage (e.g., Ojo & Akande, 2005; Urhiewhu, 2014). It suggests a positive shift in postgraduate students' engagement with digital tools in Benue State, possibly driven by increased ICT penetration and the necessity of digital resources for academic survival. The high utilisation of e-theses and e-books aligns with global trends where these formats are preferred for their accessibility and searchability (Matusiak, 2012).

However, the identified areas of low utilisation (**Databases, Printers, Scanners**) highlight critical gaps. The underuse of databases represents a potential crisis for research quality, as students may be over-relying on generic internet search engines, compromising the depth and authority of their literature reviews. This echoes challenges noted by Chimah and Nwokocha (2013), who identified “difficulty in finding relevant information” and “lack of ICT skills” as key constraints.

The dichotomy between high use of core content (e-books, e-theses) and low use of access/sharing tools (databases, peripherals) paints a nuanced picture: students are adept at consuming digital content but may face systemic or skill-based barriers in optimally accessing (via specialised databases) and processing (via printers/scanners) this content. This aligns with the **Library 2.0 theory** (Maness, 2006), which calls for user-centred, multi-media library services. The current service model may not yet be fully facilitating the “communally innovative” and seamless environment needed to integrate all digital tools into the user’s workflow.

## **Recommendations**

Based on the findings, the following targeted recommendations are made:

1. Implement mandatory, hands-on training modules and workshops focused specifically on navigating subscribed academic databases (e.g., AGORA, HINARI, JSTOR) for postgraduate students during orientation.
2. Develop and prominently display online tutorials, search guides, and FAQs for database usage on the library website and within the physical library.
3. Re-evaluate the access model and user-friendliness of underutilised peripherals (printers, scanners). Consider improving availability, reducing costs, or providing clearer instructions.
4. Prioritise funding for expanding and maintaining subscriptions to a wider range of subject-specific academic databases that directly support postgraduate research across all faculties.
5. Invest in reliable and robust ICT infrastructure, including stable internet bandwidth and consistent power supply (with alternatives like inverters/solar), to create an enabling environment for digital resource use.
6. Librarians should proactively promote database resources through research clinics, departmental seminars, and targeted emails highlighting new database features or content relevant to specific disciplines.
7. Conduct a user experience (UX) audit of the digital library interface to identify and simplify points of friction that may discourage students from using databases and other digital services.

## **Conclusion**

This study confirms that postgraduate students in Benue State universities are significant users of the digital reference resources provided by their libraries, particularly core content like e-theses, e-books, and e-journals. This is a positive indicator of digital adoption in Nigerian higher education. However, the significant underutilisation of critical research tools like academic databases and essential peripherals reveals a fractured digital experience. Students are navigating toward digital resources but may be hitting roadblocks in the form of inaccessible interfaces, inadequate training, or poorly integrated library systems. The journey from **access** to **effective, comprehensive utilisation** remains incomplete

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