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(ii) To provide a platform for new thinking and directions on the problems, prospects strategies and techniques of library and information services and ICT applications in library, archive, publishing and information works.

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INFORMATION AND COMMUNICATION TECHNOLOGY ADOPTION FOR RESOURCE ACQUISITION AND ORGANIZATION IN ACADEMIC LIBRARIES: EVIDENCE FROM BAYERO UNIVERSITY KANO, NIGERIA

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Abstract
This study investigates the adoption of Information and Communication Technologies (ICTs) for the acquisition, organization, and evaluation of information resources in Nigerian university libraries, with a focus on addressing challenges of information dissemination in an era of misinformation. Using Bayero University Kano Library's Information Resources Development (IRD) Department as a case study, the research employed a qualitative methodology with narrative design and purposive sampling of professional librarians. Findings reveal that the department utilizes diverse ICT tools, including computer hardware, i.e., scanners, printers, keyboards; software such as Microsoft Excel, Word, OCLC; and digital infrastructure like the internet, email, and mobile phones. However, critical challenges such as inadequate modern ICT facilities, unstable internet connectivity, outdated software, and insufficient staff training hinder optimal performance. The study recommends: (1) upgrading ICT infrastructure, particularly computers and peripherals; (2) enhancing internet bandwidth; (3) regular staff training programs; (4) migrating to open-source Library Management Systems such as KOHA to replace proprietary solutions like Virtua; and (5) sustained funding commitments for ICT modernization. These measures will improve the efficiency of resource acquisition, organization, and dissemination in academic libraries.

Keywords: ICT adoption, Resource acquisition, Information organization, Academic libraries, Bayero University Kano, Library management systems

Introduction

Libraries have long stood as custodians of human knowledge, traditionally functioning as repositories of books and print resources. However, in the digital era, the role of academic libraries is undergoing a radical transformation driven by the proliferation of Information and Communication Technologies (ICT). Globally, libraries are transitioning into dynamic, technology-driven learning environments, deploying tools such as cloud computing, artificial intelligence, and linked data to improve service delivery and user engagement (Chu et al., 2022;

Haruna et al., 2022). This digital metamorphosis began in the early 2000s with the emergence of expert systems, wireless connectivity, and virtual reference services (Dafiagor, 2012), and has since accelerated with the integration of advanced digital resource management systems.

In Nigeria, academic libraries are making concerted efforts to integrate ICTs into their core operations, ranging from acquisition and cataloging to user access and institutional repositories, despite multiple barriers (Adam & Kiran, 2021; Ezeani & Igwesi, 2022). The modern information landscape demands technological agility, requiring libraries to adopt hybrid collections, next-generation discovery tools, and digital preservation mechanisms (OCLC, 2022). Several studies have emphasized that strategic ICT integration (Olanlokun et al., 2021), sustained staff training in digital literacy (Nwokocha, 2023), and infrastructural investment (Abdulrahaman et al., 2022) are critical enablers for modernizing Nigerian academic libraries. Nonetheless, persistent challenges such as unstable electricity, insufficient bandwidth, and underfunded ICT budgets continue to hinder progress (World Bank, 2021; Okafor & Anasi, 2022).

The convergence of computing and communication technologies has fundamentally altered how information is created, organized, and accessed. Systems like OPACs, digital acquisition tools, and automated classification platforms are now widely used to enhance user satisfaction and operational efficiency. Yet, the gap between technologically advanced and resource-limited institutions is widening. While libraries in advanced economies experiment with AI-driven search tools and blockchain-enabled digital preservation (Haruna et al., 2022), Nigerian institutions often struggle with the implementation of foundational systems. This digital divide is particularly evident in Northern Nigerian institutions such as Bayero University Kano, where efforts to modernize library services compete with systemic limitations and skill gaps among staff.

Objectives of the Study

This study is set to achieve four specific objectives.

1. To examine the types of ICT infrastructure within the IRD Department, including hardware (e.g., servers, scanners), software (e.g., Virtua, KOHA), and tools adhering to international standards like OCLC and MARC at Bayero University Library, Kano.
2. To examine the functional applications of ICT in acquisition, cataloging, and classification processes at Bayero University Library, Kano.
3. To explore challenges such as unreliable electricity, bandwidth limitations, and skill deficits at Bayero University Library, Kano.
4. To propose scalable and evidence-based solutions tailored to the Bayero University Library, Kano.

Literature Review

The integration of Information and Communication Technologies (ICT) has fundamentally transformed library operations worldwide. ICT encompasses the hardware, software, and networks that enable information collection, storage, retrieval, and dissemination

(Ikenwe & Udem, 2022) . In academic libraries, these technologies have evolved from basic automation tools to comprehensive systems that manage the entire information lifecycle. Ramzan and Singh (2009) demonstrated how ICT streamlines library workflows by reducing manual processes in cataloging and classification while enhancing data accuracy through standards like MARC21. The transition from traditional to digital libraries represents not just technological change, but a paradigm shift in information service delivery (Haruna et al., 2022).

In Nigerian university libraries, ICT adoption has followed unique trajectories shaped by local infrastructure and needs. Studies reveal three primary application areas: resource acquisition, cataloging, and user services (Okafor & Anasi, 2022). The acquisition process has been revolutionized through e-procurement platforms that connect libraries with global publishers, while integrated library systems like KOHA have automated cataloging workflows. User services have particularly benefited from mobile-optimized OPACs and digital repositories that extend access beyond physical walls (Adam & Kaur, 2019;Abdulrahaman et al., 2022). However, these advancements remain unevenly distributed, with urban institutions typically better equipped than rural counterparts.

Significant challenges hinder optimal ICT utilization in Nigerian academic libraries. Infrastructure limitations pose the most immediate barrier, with power instability reducing system availability to an average of 4.2 hours daily in some regions (World Bank, 2021). Bandwidth constraints further compound these issues, as most institutions operate with less than 10 Mbps internet speeds - inadequate for cloud-based systems. Human resource factors present another critical challenge, as Ikenwe and Udem (2022) national survey found 68% of library staff lack training in emerging technologies. Financial constraints complete this triad of barriers, with proprietary software licenses consuming disproportionate shares of limited ICT budgets (OCLC, 2022).

Theoretical frameworks help contextualize these empirical findings. Rogers' Diffusion of Innovation Theory explains the gradual, often resistance-filled adoption patterns observed in Nigerian libraries, where new technologies must overcome cultural and institutional inertia (Haruna et al., 2022). Complementing this, the Technology Acceptance Model (TAM) provides insight into how staff perceptions of usefulness and ease-of-use influence actual system utilization. These theories collectively suggest that successful ICT implementation requires both technical solutions and attention to human factors.

Recent advancements offer promising solutions to these challenges. Open-source systems like KOHA have gained traction as cost-effective alternatives to proprietary software, particularly when customized for local needs (Olanlokun et al., 2021). Hybrid approaches that combine cloud technologies with localized infrastructure help mitigate bandwidth limitations. Perhaps most critically, targeted training programs that address specific skill gaps among library staff show measurable improvements in technology adoption rates (Nwokocha, 2023). These developments suggest a path forward for Nigerian academic libraries to harness ICT's full potential despite current constraints.

Types of Information and Communication Technologies (ICTs) in University Libraries

Information and Communication Technologies (ICTs) have become integral to the operations of university libraries, facilitating the acquisition, processing, storage, and dissemination of information. Afolabi and Abidoye (2011) categorize ICTs into five main types: sensing technologies (e.g., scanners, keyboards, barcode readers), communication technologies (e.g., email, teleconferencing), display technologies (e.g., monitors, printers), analysis technologies (e.g., computers for data processing), and storage technologies (e.g., magnetic tapes, optical disks).

The rapid evolution of ICT has significantly transformed university libraries, enabling services that transcend geographical boundaries. Hudron and Emmanuel (2014) observed that diverse library software are now employed to support operations such as cataloguing, acquisitions, serials control, and circulation. They emphasized the need for libraries to adopt software compliant with MARC 21 standards, a widely accepted format for representing bibliographic data in machine-readable form. Ivanovio and Ivanovie (2016) further noted the application of MARC 21 across multiple formats, including textual documents, computer files, cartographic materials, and datasets. The use of online catalogues such as the Library of Congress Online Catalogue and OCLC WorldCat for copy cataloguing has streamlined bibliographic operations. Yakubu (2012) highlighted that cataloguers input essential bibliographic elements into MARC, which is then saved to populate the OPAC (Online Public Access Catalogue).

Modern ICT infrastructure in academic libraries extends beyond bibliographic utilities. . Adam & Garba (2016); Adebayo et al. (2018) listed a wide range of technologies used in library services, including desktop and laptop computers, smartphones, iPads, barcode readers, printers, routers, switches, and various network cabling systems. They also emphasized the role of software, particularly operating systems, utility programs, and application software, essential for digital information management.

The introduction of ICTs has significantly expanded the role of cataloguers. Zaid (2008) noted that the adoption of online cataloguing tools has enabled cataloguers to address issues such as delays in shelving and backlogs of unprocessed books. This transformation has shifted cataloguers' responsibilities beyond traditional tasks to include processing digital and Internet-based resources. Bamidele and Olusegun (2017) emphasized that cataloguers must now possess new competencies, including proficiency in library software, online cataloguing standards such as MARC 21, Web Dewey, and Web LC, as well as metadata manipulation and cataloguing for diverse user groups. Similarly, Oduwole et al. (2003) listed Online Public Access Catalogues, CD-ROM databases, email, and internet browsing as key ICT facilities deployed in university libraries in Nigeria.

Recent studies have further explored the integration and challenges of ICTs in Nigerian university libraries. Emmanuel, Ebhomeya, and Opururm (2024) examined the use of ICT tools by postgraduate students at Dr. Nnamdi Azikiwe Library, University of Nigeria, Nsukka,

revealing challenges such as inadequate network access and power outages. Agboke and Oladokun (2025) discussed the prospects and challenges of emerging technologies like artificial intelligence and robotics in Nigerian academic libraries, highlighting issues such as inadequate infrastructure and limited technical expertise. Ogunbodede and Atchrimi (2024) assessed the digital competencies of librarians in South-South Nigeria, identifying challenges including inconsistent power supply, poor ICT facilities, and lack of training opportunities. Anene and Nancy (2024) proposed a model for integrating ICTs in resource sharing practices to enhance service delivery in academic libraries in Southeast Nigeria. Amadi (2023) highlighted benefits and challenges of implementing information technology in Nigerian academic libraries, noting issues like inadequate funding and poor internet connectivity. Omeluzor et al. (2022) examined information dissemination during the COVID-19 era, revealing that claims of ICT usage in Nigerian university libraries were often rhetorical. Ogbomo and Blessing (2023) found a significant relationship between librarians' ICT skills and the preservation and conservation of information resources in university libraries in Delta and Edo States.

In light of the foregoing, this study seeks to identify and analyze the various types of ICTs utilized in the Information Resources Development (IRD) Department of Bayero University Library. The objective is to understand how these technologies are applied in facilitating efficient resource development and user services within the university library environment.

Challenges in the Application of Information and Communication Technology

The integration of Information and Communication Technology (ICT) in libraries, especially in developing countries like Nigeria, has significantly enhanced the quality and accessibility of information services. However, its application continues to face a range of persistent challenges. One of the major concerns identified in several studies is the inadequacy of training and retraining opportunities for library staff. Adamu & Umar (2018) in her research on ICT application in university libraries, observed that many staff members lack the necessary technical competencies to effectively utilize emerging ICT tools. This skills gap is exacerbated by the absence of continuous professional development programs, leaving staff unprepared for the demands of modern information services.

Another critical barrier to ICT implementation in libraries is the shortage of ICT facilities and poor infrastructure. Ivwighreghweta (2013) emphasized that insufficient funding and erratic power supply are the predominant issues affecting the deployment of ICT in academic libraries. Libraries often operate under tight budgets, making it difficult to acquire up-to-date computers, subscribe to online databases, or maintain robust ICT systems. Similarly, Hungwa et al. (2015) reported that the absence of adequate support infrastructure, such as air conditioners and uninterrupted power supply, limits the effective use of ICT tools. They also noted that many librarians have to sponsor themselves for ICT-related training, which discourages participation and hampers capacity building.

Lack of technical knowledge and awareness among library users and staff also poses a

considerable challenge. As Ojohwoh and Okoh (2011, cited in Nkorabon et al., 2020) noted, even when ICT gadgets are available, many users are unaware of their full capabilities. For instance, smartphone users may not realize they can use their devices for data analysis or document preparation, which limits the effectiveness of ICT tools in enhancing library services. Moreover, the lack of government support through inadequate funding for the education sector—below the UNESCO-recommended benchmark—continues to hinder technological advancement in Nigerian libraries (Ogwo et al., 2023).

The cost of acquiring ICT equipment and subscribing to online services remains prohibitively high due to importation costs and currency exchange challenges. As noted by (Ogwo et al., 2023), most ICT gadgets used in Nigeria are imported, and the fluctuating value of the naira against the dollar makes acquisition and maintenance expensive. Unreliable internet connectivity further complicates the situation, as libraries require constant and stable network access to host and retrieve digital resources. In many cases, poor internet access disrupts access to automated library services and hampers user satisfaction.

Cybersecurity concerns also constitute a growing threat to ICT deployment in libraries. The increasing incidence of cybercrimes and data breaches has made some institutions reluctant to fully embrace digital transformation. Hackers may exploit vulnerabilities in library systems, especially in multi-tenant server environments, to access or manipulate sensitive data (Ogwo et al., 2023) . This fear of data compromise reduces the pace at which libraries implement ICT-based services.

Adebayo, Ahmed, and Adeniran (2018) identified several systemic and operational challenges to ICT deployment in libraries. These include limited financial resources, inadequate ICT facilities, low ICT literacy among staff, poor maintenance culture, and lack of systematic ICT policies. Many libraries do not have dedicated maintenance departments or suitable environments to store sensitive digital equipment, leading to frequent breakdowns. The high cost of repairs and the absence of a maintenance culture further worsen the problem.

Additional challenges include insufficient bandwidth, frequent changes in software and hardware requiring constant upgrades, and inadequate understanding of copyright and intellectual property rights in the digital environment. These issues collectively hinder the seamless application of ICT in library operations and pose significant challenges to achieving sustainable digital transformation.

In light of these persistent challenges, this study seeks to explore the specific issues affecting the application of ICT in the Information Resources Development (IRD) department of the Bayero University Kano Library. Understanding these challenges within the local context will contribute to the formulation of practical solutions tailored to the needs of academic libraries in Nigeria.

Methodology

A qualitative research methodology was adopted, as it is most suitable for studies involving a limited number of participants who possess in-depth knowledge relevant to the research questions. Qualitative research is characterized by the collection of rich, detailed data through methods such as in-depth interviews, close interaction with participants, and the careful transcription and interpretation of textual or verbal data (Creswell & Poth, 2018). Specifically, the study employed a narrative research design, which involves collecting and interpreting stories or personal experiences from participants to understand how they perceive and make sense of particular phenomena. According to Trahar (2009), narrative inquiry is a research method that enables researchers to gather and present data in the form of participants' lived experiences through storytelling and reflection.

The target population for this study consisted of 14 professional librarians and researchers working in the IRD Department of Bayero University Library. As Ifidon and Ifidon (2007) defined, a population refers to the entire group of individuals or elements that possess certain common characteristics and are of interest to the researcher. Since the group in question is relatively homogenous and directly involved with ICT applications in resource development, purposive sampling was employed. Purposive sampling also known as judgmental or selective sampling is a non-probability sampling technique that allow the researcher to select participants based on their expertise, experience, or relevance to the study (Palinkas et al., 2015). For this research, the Head of the Department and two senior librarians who are directly involved in the processing and application of ICT in library operations were purposefully selected as participants.

Data were collected using semi-structured interviews, which allowed for flexibility in probing and follow-up questions while maintaining consistency across interviews. This approach facilitated a deep understanding of the participants' experiences and perspectives. The responses were analyzed using Qualitative Data Analysis (QDA) techniques, which involved thematic coding, pattern identification, and interpretation of emerging narratives.

Result and Discussion

The interview guide was developed in alignment with the research objectives of the study. The interview process was conducted between the researchers, the Head of Department, and two other senior academic librarians of the Information Resources Development (IRD) department at Bayero University Kano Library.

The summary of the participants' qualifications, experience, and positions is outlined as follows:

SN	Participants	Qualification	Time Spent	Experience	Position
Professional Librarian					
1	Professional	MIM	30 mins	20 years	HOD
2	Professional	MLIS	30 mins	18 years	Member

3	Professional	MLIS	30 mins	8 years	Member
Researchers					
4	IT Staff	15 mins			
5	IT Staff	15 mins			
6	IT Staff	15 mins			
7	IT Staff	15 mins			
8	IT Staff	15 mins			
9	IT Staff	15 mins			
10	Researchers	MLIS	15 mins		
11	Researchers	MLIS	15 mins		
12	Researchers	BLIS	15 mins		
13	Researchers	BLIS	15 mins		
14	Researchers	MLIS	15 mins		

Source: Interview

The following themes guided the reporting of the findings:

Theme 1: Types of ICT Infrastructure

This theme catalogues the hardware, software, and tools available in the IRD department.

When asked about the types of ICT in their department, participants mentioned a wide array of tools, including both desktop and laptop computers, printers, internet connectivity, cell phones, staplers, UPS units, photocopiers, scanners, paper cutting machines, mice, visual display units (VDU), and cataloguing/classification software such as the Online Computer Library Center (OCLC), Library of Congress Online Catalog, and Virtual Library Management Software. These tools reflect the significant steps taken by the IRD department to incorporate ICTs into their daily operations, aiming to optimize processes such as selection, ordering, and processing of library collections.

> *"For our day-to-day work, we rely heavily on our desktop computers and laptops. They are the backbone of everything. We also have a range of peripherals like printers, a high-speed photocopier, and a dedicated scanner that we use for digitizing older acquisition lists and important documents. Of course, with the unstable power here, the UPS units are not a luxury; they are a lifesaver. They give us just enough time to save our work and shut down properly during an outage." PB1*
>
> *For cataloguing, we use specialized software like KOHS that has MARC standards. This ensures our records are accurate and meet international benchmarks." PB5*
>
> *"ICT has revolutionized our workflow. Processes that took weeks now happen smoothly online, process such as processing new materials, cataloguing etc." PB2*

These findings align with (Anunobi, 2005), who identified key ICT resources commonly used in Nigerian university libraries, including computers, UPS units, internet connectivity, mobile phones, and CD-ROMs, among others. Similarly, (Adam et al., (2020) listed modern technologies such as desktop computer, Internet and network equipment used in libraries.

Table 1: ICT Infrastructure in the IRD Department

Category	Specific Tools & Technologies	Purpose/Application
Hardware	Desktop Computers, Laptops, Scanners, Printers, Photocopiers, Paper Cutting Machines, Uninterruptible Power Supplies (UPS)	Core workstations, digitization, printing, power backup, and physical processing of materials.
Software	KOHA (Library Management System), Virtua, Microsoft Office (Word, Excel)	Integrated library functions, cataloguing, record keeping, and communication.
Online Tools & Standards	OCLC (Online Computer Library Center), Library of Congress Online Catalog, MARC (Machine-Readable Cataloging) Standards	Adherence to international cataloguing standards, bibliographic data verification, and quality control.

Theme 2: Functional Applications of ICT

This theme details how ICT is used in core library processes.

In the Information Resources Development (IRD) department, ICTs are heavily utilized. For example, Microsoft Excel and Word are used to type submissions from various departments, while internet connectivity facilitates the exchange of emails. The department also employs scanners to send documents to Tetfund for verification, and photocopiers are used to produce multiple copies of submissions and receipts. Communication with publishers occurs through mobile phones and email, while internet browsing is used to explore publisher catalogs, such as those of Amazon and Elsevier, to assist in the selection of relevant resources. Paper cutting machines and scissors are used for post-processing tasks such as paper bundling and carton opening after book delivery.

> *"For our internal records, we use the photocopier to make multiple copies of every receipt and submission form. It keeps everything organized and accountable." PB3*
>
> *"Once the new books arrive, our work begins. We use paper cutting machines and even simple tools like scissors to unbundle the shipments and prepare the physical items for the next stage." PB4*
>
> *"I use the internet to browse publisher catalogs like Amazon and Elsevier to check for availability and prices." PB7*

These practices align with the findings of Ramzan and Singh (2009), who emphasized the role of ICTs in enhancing library activities, including acquisition, cataloguing, classification, data

storage, and information retrieval. Moreover, ICTs increase efficiency by eliminating repetitive tasks and fostering cooperation and resource sharing across libraries.

Subtheme: ICT Application in Cataloguing of Books

The department uses online cataloguing tools to manage bibliographic data, converting the information into Machine-Readable Cataloging (MARC) format, which is then linked to the Library Management Software (LMS). The LMS automatically generates an Online Public Access Catalog (OPAC), enabling easy access to library resources. The OCLC software is also integrated into the cataloguing process.

> *"In this department, we are now using online tools for cataloguing. We will take the bibliographic data and change it to MARC. After that, our Library Software will take over and produce the OPAC. This is what allows easy access to our resources. We are even using OCLC to make sure we are following international standards." PB2*

This finding is consistent with Nwosu (2015), who noted that online cataloguing tools have significantly improved the speed and accuracy of cataloguing processes. Similarly, Yakubu (2012) highlighted the key bibliographic information included in the MARC format, such as ISBN, title, classification type, call number, and target audience, which is used to build the OPAC.

Subtheme: ICT Application in Classification of Books

For book classification, the Library of Congress Classification (LCC) system is used. The department employs computers connected to the internet to input bibliographic data, using input devices like the keyboard and mouse to classify materials. This process enables accurate and efficient classification of resources.

> *"The work is much easier now. Before, you will be carrying heavy classification volumes. But now, everything is on the computer. We are using Z39 to just input the bibliographic data. The system help us to avoid mistakes. The work is neat." PB6*

Bamidele and Olusegun (2017) emphasized that ICTs have expanded the roles of cataloguers and classifiers by enabling them to operate various library software and online tools, such as MARC21, Web Dewey, and Web LC. However, one notable challenge highlighted during the interview was the lack of access to the Classification Web tool, which could be attributed to subscription issues.

Table 2: ICT Applications in Core IRD Processes

Process	ICT Tools Used	Functional Application
Information Resources Development (Acquisition)	Internet, Email, Microsoft Excel/Word, Scanners, Mobile Phones	Browsing publisher catalogs (e.g., Amazon, Elsevier), communicating with publishers, preparing and submitting lists to TETFund, record keeping.
Cataloguing of Books	KOHA/Virtua, OCLC, MARC Standards	Converting bibliographic data into MARC format, creating standardized records,

		generating the Online Public Access Catalog (OPAC).
Classification of Books	Computers, Internet, Library of Congress Classification (LCC) Online	Inputting bibliographic data, assigning accurate call numbers using online classification systems, ensuring consistency.

Theme 3: Challenges in ICT Application

This theme identifies the key obstacles hindering optimal ICT use in the IRD department.

Several challenges were identified in the application of ICTs within the IRD department, including insufficient ICT facilities, inadequate internet connectivity, frequent changes in hardware and software, a lack of ongoing training for technical staff, and a poor maintenance culture.

> *"The network is just not strong. You want to access or download MARC record easily, the page will just be loading… loading. It wastes a lot of our time. Another thing is that these software and hardware change. It is a serious matter." PB12*

These challenges resonate with Adebayo, Ahmed, and Adeniran (2018), who identified common obstacles to ICT adoption in Nigerian libraries, such as limited financial resources, poor maintenance practices, erratic power supply, and the need for continuous training and skill development for library staff.

Table 3: Challenges in ICT Application by Process Area

Challenge	Manifestation in IRD	Manifestation in Cataloguing	Manifestation in Classification
Unreliable Electricity & Hardware	Downtime without UPS; outdated computers.	Work interruption, risk of data loss.	Inability to access online classification tools.
Bandwidth Limitations	Slow email, difficulty browsing publisher sites.	Inability to download MARC records, slow access to OCLC.	Slow loading of online classification systems (e.g., Z39).
Skill Deficits & Training Gaps	Lack of advanced Excel/procurement software skills.	Inefficiency with new software features.	Lack of training on tools like "Classification Web".
Insufficient & Outdated Facilities	Too few computers for staff.	Software not updated, lack of dedicated workstations.	

Theme 4: Scalable and Evidence-Based Solutions

This theme summarizes the solutions proposed by the library staff to address the identified challenges.

To address these challenges, participants suggested several solutions. These include the provision of additional computers and peripherals, improved internet connectivity, timely subscription renewals for software, and replacement of outdated hardware. Furthermore, continuous training and retraining of technical staff were recommended to ensure they remain up to date with the latest trends and technologies. Participants also emphasized the need for adequate funding to ensure the proper maintenance and functionality of ICT resources in the department.

> *"The management should try and provide more computers, because how can five people be sharing one system? And this internet, they need to improve it. If they can also be giving money on time to renew our software subscriptions and change these old systems, everything will go smoothly." PB13*
>
> *"They should be organizing training regularly. This technology is changing every day. If we are not trained, we will be left behind. "PB14*

Table 4: Proposed Solutions Mapped to Challenges

Challenge	Proposed Scalable Solution
Insufficient & Outdated Hardware	Secure funding to purchase more computers and peripherals to achieve a 1:1 staff-to-computer ratio.
Bandwidth Limitations	Upgrade the library's internet bandwidth to ensure fast, reliable access to online cataloging and classification tools.
Unreliable Electricity	Invest in higher-capacity Solar systems, UPS or generators to maintain operations during power outages.
Skill Deficits	Implement a mandatory, regular training schedule for staff on existing software (KOHA, OCLC etc.) and new technologies.
Outdated Software/Lapsed Subs	Create a dedicated budget line for annual software subscriptions (e.g., Classification Web) to ensure uninterrupted access.
Poor Maintenance & Funding	Allocate a specific and sufficient annual budget for ICT maintenance, upgrades, and training, ensuring its timely release.

Conclusion

Information and Communication Technology (ICT) is indispensable in modern libraries, facilitating the collection, storage, retrieval, manipulation, and dissemination of data. By leveraging telecommunications and networks, ICT transcends geographical and political barriers, granting users seamless access to information. Nigerian libraries must fully embrace ICT to enhance service delivery, aligning with global standards observed in developed countries. The effective integration of ICT into library operations significantly boosts efficiency, enabling faster and more streamlined workflows. This study provides practical guidance for the IRD staff and university administrators on optimizing existing ICT resources and planning future upgrades. Professionally, it contributes to the discourse on ICT adoption in Northern Nigerian libraries, offering data that can inform library school curricula and regulatory frameworks by bodies like the National Universities Commission (NUC). At the policy level, the findings underscore critical gaps in ICT infrastructure and funding, advocating for targeted investments in power

supply and digital resources for academic libraries.

The study focuses specifically on the ICT ecosystem within Bayero University Kano's IRD Department, examining acquisition, cataloging processes, and core technologies used between 2020 and 2024. While it does not evaluate user-facing services or manual workflows, this narrowed scope allows for an in-depth analysis of the department's shift from physical to digital systems and staff adaptation to emerging technologies. Such focus ensures methodological rigor and actionable insights for similar institutions undergoing digital transformation.

Recommendations

Based on the findings, the following recommendations are made:

1. To improve efficiency and service delivery, there should be a provision of additional ICT facilities, particularly computers and their peripherals, to meet the growing demands of the IRD department. Additionally, enhancing internet connectivity is crucial to ensure smooth and uninterrupted operations, as slow or unstable connections can hinder productivity.
2. Continuous training and retraining of staff in technical services would keep them updated with evolving technological trends. This will enhance their ability to utilize new tools and systems effectively. Furthermore, regular software updates should be prioritized, and alternative Library Management Systems (LMS) such as KOHA should be explored, as they may offer more cost-effective and efficient solutions compared to existing systems like Virtual.
3. The library management must commit to adequate funding and proper maintenance of ICT infrastructure to sustain its effectiveness in service delivery. Without consistent financial support and upkeep, even the best technological investments may fail to yield long-term benefits.

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BEHAVIOURAL INTENTION OF LIBRARY AND INFORMATION SCIENCE EDUCATORS TO USE EMERGING TECHNOLOGIES

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Abstract

This study examined the behavioural intention of LIS educators to use emerging technologies in teaching with the objectives of ascertaining if there is a significant relationship between their behavioural intentions to use emerging technologies and the actual utilisation of emerging technologies. *Descriptive correlational survey design was employed. Total enumeration was used to capture one hundred and sixty-three (163) LIS educators in selected library schools using questionnaires as the research instrument. The reliability coefficient to ascertain the reliability of the instrument using Cronbach alpha technique was 0.94. Out of the one hundred and sixty-three questionnaires (163) administered, only one hundred and twenty-six (126) were returned and found useful for the study. The findings revealed a significant positive behavioural intention to use emerging technologies among LIS educators, with an average of ($\bar{x}$=3.39). The key factors driving this intention included facilitating conditions ($\bar{x}$=3.47), performance expectancy ($\bar{x}$=3.37) and social influence ($\bar{x}$=3.36). However, the study identified significant challenges that hinder the adoption of these technologies, including insufficient infrastructure (97.6%), limited awareness of technological advancements (96.8%) and inadequate digital literacy (97.3%). Findings further revealed a moderate positive correlation between behavioural intention and the actual utilisation of emerging technologies ($r = 0.556$, $p < 0.05$). The study concludes that while LIS educators have a strong intention to adopt emerging technologies, various barriers prevent effective implementation. Hence, the study recommended investment by library schools in robust technological infrastructure such as smart boards, and other necessary hardware to support effective technology integration in teaching and learning processes by the LIS educators.*

Keywords: Emerging Technologies, LIS Educators, Behavioural Intention to Use Emerging Technologies, Nigeria.

Introduction

Technology is constantly evolving, and new technologies are emerging at an ever-increasing rate. These emerging technologies are transforming the way lecturers engage with students. Innovative applications of existing technological advancements that are fully realised and integrated into specific disciplines or professional contexts characterize the paradigms of emerging technologies. According to Al-Hader & Al-Muraihed (2019) emerging technologies are innovative technologies that are still in the development stage or have recently been introduced to the market and have the potential to significantly impact various aspects of society, economy and human life.

Emerging technologies thus encompass a broad spectrum of novel applications, which includes the development and integration of new hardware devices and software applications/social media platforms such as Zoom, Twitter, Facebook, Instagram, WhatsApp, Google Meet, Google Drive, digital readers/tablets, cutting-edge technologies such as three-dimensional (3D) printing, Artificial Intelligence, virtual reality (VR), augmented reality (AR), and the Internet of Things (IoT), artificial intelligence (AI), Gamification, Learning Management Systems (LMS) and web conferencing tools etc.

Consequently, libraries and information science (LIS) education in recent times have embraced these emerging technologies for efficient teaching and learning (Omehia, Okwu & Nsirim, 2021). This is because these technological innovations have revolutionised the LIS education landscape by enabling educators to deliver virtual lectures/seminars, webinars, and online training sessions. For instance, some of the emerging webinar software packages like Zoom facilitate real-time interactive features, including screen sharing, polls and voting, live chat, multiple hosts and clients, and question-and-answer sessions. However, the effectiveness of this integration depends on the LIS educators' behavioural intention to use these emerging technologies.

Behavioural intention is therefore the degree to which a person has developed conscious plans to engage in some specific future behaviour in this study emerging technologies. Behavioural intention in relation to emerging technology utilisation refers to an individual's conscious plan or willingness to adopt and use a particular technology. Several models, most notably the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), place behavioural intention as a direct predictor of actual technology use. For the LIS educator, the behavioural intention to use emerging technologies refers to their willingness and readiness to adopt, implement, and apply new and innovative technologies into their teaching/research activities, and professional development. It reflects their intention to engage with emerging technologies to enhance their instructional methods, improve teaching outcomes, and stay abreast of technological advancement in the field.

The behavioural intention of the LIS educators towards the use of emerging technologies can be caused by several factors, including perceived ease of use, performance expectancy, social influence, facilitating conditions, and user behaviour (Thuraya, Azzah & Sami 2023). These factors have a crucial role to play in shaping LIS educators' attitudes, beliefs, and intention to adopt and integrate emerging technologies into their teaching practices, research activities, and professional development. For instance perceived ease of use as a component of behavioural intention refers to the degree to which LIS educators believe that utilising emerging technologies seems simple, convenient, and user-friendly. If LIS educators perceive the emerging technologies as easy to learn and integrate into their existing workflows, they are more likely to have positive intentions toward using them. A user-friendly interface, clear instructions, and accessible support resources can also enhance LIS educators' perceptions on ease of use and encourage their adoption of these emerging technologies.

Additionally, another behavioural intention factor that can influence technology use is performance expectancy which relates to LIS educators' beliefs and outcomes of using emerging technologies in their work. PE is defined as “The capability of the technology to provide benefits and enhance the performance to the user according to his/her expectations” (Venkatesh, Morris, Davis & Davis 2003). If LIS educators expect that incorporating new technologies will improve their teaching effectiveness, research productivity, or professional development opportunities, they are more likely to have positive intentions towards its use. Demonstrating the potential advantages of technology integration, such as increased efficiency, enhanced collaboration, or expanded learning opportunities, can boost LIS educators' performance expectancy and motivate them to embrace emerging technologies. Similarly, social influence which is another behavioural intention refers to the impact of interpersonal relationships, peer recommendations, and institutional support on LIS educators' decisions to adopt and utilize emerging technologies. The attitudes, opinions, and experiences of colleagues, mentors, or professional networks can further influence LIS educators when they consider using new technologies. Positive feedback, collaborative partnerships, and shared best practices within the LIS community can create a friendly environment that encourages educators to explore and experiment with emerging technologies.

Another subcomponent of the behavioural intention is facilitating conditions which is defined as the expected level of organizational and technical infrastructure that can support technology use (Venkatesh et al 2003). It encompasses the availability of resources, infrastructure, and support systems that enable LIS educators to effectively use emerging technologies in their work. Adequate training programs, technical assistance, access to hardware and software tools, and institutional policies that promote technological integration can create favourable conditions for LIS educators to adopt and sustain their use of new technologies. Therefore, providing the necessary resources and support can reduce barriers to technology adoption and facilitate educators' engagement with emerging technologies.

Furthermore, user behaviour, which is the last behavioural intention to use technology refers to the actions, interactions, and engagement patterns of LIS educators using emerging technologies in their professional roles. LIS educators' attitudes, motivations, skills, and experiences with various tools and platforms can shape their behaviour towards technology usage. Observing how LIS educators interact with technology, adapt to new features, seek out learning opportunities, and incorporate digital tools into their daily practices can provide insights into their behavioural intentions and preferences for using emerging technologies. It includes both the frequency and intensity of use. For instance, we could measure usage behaviour by asking LIS educators to report on their frequency of technology use, the duration of their usage, and the variety of tasks they perform with it. Hence, the behavioural intentions of LIS educators toward emerging technologies will determine their usage.

Statement of the Problem

Library and Information Science education is undergoing a fundamental change due to the pervasive influence of emerging technologies (ETs), including Artificial Intelligence (AI), Big Data analytics, and advanced digital curation tools. These technologies are redefining information management, service delivery, and professional skill requirements. Consequently, LIS educators plays the critical responsibility of integrating these ETs into their curricula to ensure graduates are competent and market-ready professionals. Failure to achieve this integration risks rendering LIS programs irrelevant and creating a skills deficit in the information workforce.

However, the potential benefits of using emerging technologies in enhancing teaching and learning, is often suboptimal in literature as external generic barriers such as inadequate institutional infrastructure, insufficient funding, and lack of specialised professional development programs (Abubakar & Yunusa, 2024; Echem, Udo-Anyanwu &Ujoumunna, 2024) with minimal emphasis on the behavioural intention of LIS educators who plays a significant role in shaping the next generation of information professionals who will navigate the ever-evolving information landscape. Hence, the need for this study to examine the behavioural intention of LIS Educators to use emerging technologies.

Research Questions

The following research questions guided this study:

i. What are the behavioural intentions to use emerging technologies by LIS educators?
ii. What are the challenges of emerging technologies utilisation by LIS educators?

Hypothesis

The null hypothesis was tested at 0.05 level of significance

There is no significant relationship between behavioural intention and emerging technology utilisation by LIS educators in South-West Nigeria.

Literature Review

In the contemporary digital era LIS educators perhaps confront the problem of incorporating emerging technologies into their pedagogical approaches. Given the rapid progress of technology, it is essential for LIS educators to remain informed and integrate these emerging technologies into the curriculum. The growing evolution of technology and its incorporation into everyday life requires LIS educators to understand the factors affecting individuals' intents to use these technologies in certain manners.

The use of new technologies in LIS education exemplifies behaviouristic intention, characterised as an individual's motivation or desire to engage in a certain behaviour. These stems from several models, most notably the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) which place behavioural intention as a direct predictor of actual technological use. Researchers have conducted numerous studies (Demuyakor, Doe, Tachie-Djan, Bhatti & Avenyo, 2024; Anthony, Kamaludin, & Romli,

2021) to identify the variables influencing behavioural intention towards technology utilisation. For instance, a study on predicting academic staff behaviour intention and actual use of blended learning in higher education found out that performance expectancy significantly influenced the lecturers intention to adopt blended learning, higher effort expectancy positively influenced lecturers' behavioural intention towards using blended learning, the study confirmed that social pressures, such as encouragement from peers and institutional support, also play a crucial role in motivating lecturers to adopt blended learning (Bokolo, Kamaludin, & Romli 2023).

Additionally, variables such as perceived utility, perceived ease of use, computer self-efficacy, attitude towards emerging technology, and social norms have been known to influence the behavioural intention to use technology. This was established in the studies of Budu, Yinping, & Mireku (2018) that demonstrated that self-efficacy significantly influences behavioural intentions to utilize E-learning systems. Also, one's attitude towards technology significantly influences one's behavioural intention. The Theory of Reasoned Action (TRA) posits that people's view towards a specific behaviour, such as deploying emerging technologies, influences their intentions to adopt it (Ajzen & Fishbein, 1980). Studies also showed that Performance Expectancy significantly influences intention to use technology. This was corroborated in the study of Al-Riyami, Al-Maskari & Al-Ghnimi (2023) which indicates that performance expectancy (PE) significantly influences the behavioural intention (BI) of faculty members to adopt 4IR-related technologies. This means that when faculty members believe that these technologies will improve their teaching performance, they are more likely to use them. In a related study conducted on Spanish university lecturers, the study found out that PE had a significant effect on the lecturers intention to use the Internet of Things (IoT) (Romero-Rodríguez, Alonso-García, Marín-Marín, & Gómez-García, 2020).

In a related study, the study found out that facilitating conditions, performance expectancy, and effort expectancy predict users' behavioural intention to utilise e-learning tools (Alshabeb, Alharbi, Almaqrn, & Albazie 2020). Similarly, Jacob & Pattusamy (2020), found out that PE had an impact on educators' willingness to accept and use mobile internet in Malaysia. Also, a study on predicting university teachers' behaviour intentions toward digital technologies revealed that PE has a negative influence on university teachers' intentions to accept and use digital technologies, facilitating conditions positively influences teachers' intentions to use digital technologies. The study suggests that adequate resources, such as internet access and digital equipment, are essential for encouraging the adoption of technology in teaching (Demuyakor, Doe, Tachie-Djan, Bhatti & Avenyo, 2024).

Behavioural intention is also affected by social influence. Studies indicate that social influence, which includes the impact of peers and institutional support, significantly affects lecturers' intentions to use technologies (Bokolo, Kamaludin & Romli 2023). This was corroborated in a study that found out that Effort expectancy and social influence directly and significantly impact the faculty members’ behavioral intention to use fourth industrial revolution related technologies in teaching (Al-Riyami, Al-Maskari, & Al-Ghnimi, 2023). Studies of Yang, Wang, and Park (2020) revealed analysis of 45 publications published from 2000 to 2019

showed that self-efficacy, attitude towards technology, perceived utility, and ease of use were the primary variables influencing behavioural intention (BI). The findings corroborated previous studies and emphasised the need of providing educators with assistance and training to enhance their self-efficacy and favourable attitudes towards the use of emerging technologies.

Effort Expectancy (EE) is another behavioural intention that influenced educators' use of mobile technology (Sidik & Syafar, 2020). Educators who accept that other people have a part to play in the process of their adoption of mobile internet are more likely to adopt mobile internet for educational purposes. This was corroborated in the study of Al-Riyami Thuraya, Al-Maskari Azzah, and Al-Ghnimi Sami (2023) which performed research on faculty members' intentions on the utilisation of technology associated with the fourth industrial revolution in higher education institutions. The research illustrates the correlations among performance expectancy, effort expectancy, social influence, facilitating conditions, and attitudes towards technology use, corroborating the hypothesis that these elements substantially affect faculty members' intention to incorporate 4IR-related technologies in education. In another study on factors influencing academics' behavioural intentions and utilisation patterns regarding online teaching technologies during the COVID-19 pandemic, using academics from five Malaysian research institutes, results indicated a substantial correlation between effort expectations and behavioural intentions (Faiq, Roziah, Ahmad, Fazilah, & Seyedali, 2022).

Also, Kabra, Ramesh, Akhtar & Dash (2017) conducted a study on comprehending the behavioural intention to use emerging technology, using insights from humanitarian practitioners. The research indicated that both effort expectation and performance expectation had a favourable and substantial impact on behavioural intention. Although a minor negative association exists, social influence does not impact behaviour or intention. Furthermore, in a related study on investigating the effect of behavioural intention on E-learning systems usage findings indicate that self-efficacy, perceived usefulness, perceived ease of use significantly influences behavioural intentions to utilize E-learning systems in in Ghana’s tertiary education institutions. This result implies that self-efficacy is the main behavioural intention factor in determining E-learning system utilisation, in Ghana’s tertiary education context (Budu, Yinping, & Mireku, 2018). Emerging technology adoption however does not come without its utilisation challenges. Studies have shown that challenges such as inadequate technological infrastructure, limited professional development opportunities, resistance to change, insufficient ICT facilities and funding, limited awareness of pedagogical collaborative technologies, unstable internet connectivity, and low digital literacy hinders emerging technologies utilisation (Abubakar & Yunusa 2024; Echem, Udo-Anyanwu & Ujoumunna 2024).

Methodology

Descriptive correlational design was adopted for this study. The population of the study comprised of all LIS lecturers in higher institutions offering LIS in South-west, Nigeria. This geographical location was selected because it has the highest number of university distribution in Nigeria, hence the findings can be generalised. Total enumeration technique was used to capture the entire one hundred and sixty-five (165) LIS educators. A questionnaire developed by the

researchers for data collection was the main research instrument. The reliability of the instrument was ascertained after it had gone thorough face validity with experienced librarians and knowledge management teachers/scholars. The content validity was ascertained after 30 copies of the questionnaire were administered to LIS educators in Kwara State University and University of Ilorin who were not part of the study population. The reliability coefficient of 0.94 was obtained using the Cronbach's alpha technique. The response rate for the questionnaire distributed to various library schools showed that 165 questionnaires were administered, but only 126(77.2%) of the questionnaires were returned and found useful for analysis, while 39 copies of the questionnaires were either missing or not useful for the analysis. Descriptive statistics of frequency count and percentage were used to analyse the research questions while Pearson correlation was used to test the hypothesis.

Results and Discussion

Research Question 1: What is the behavioural intention to the use of emerging technologies by LIS educators in Southwest Nigeria?

Table 1: Behavioural intention to use emerging technologies by LIS educators

Ease of Use	**Strongly Agree (%)**	**Agree (%)**	**Disagree (%)**	**Strongly Disagree (%)**	**Mean**	**Std. Dev.**
I find it easy to use emerging technology	53 (42.1%)	67 (53.2%)	6 (4.8%)	0 (0.0%)	3.37	0.58
My interaction with emerging technology is clear	49 (38.9%)	74 (58.7%)	3 (2.4%)	0 (0.0%)	3.37	0.53
Using emerging technology requires less effort	48 (38.1%)	64 (50.8%)	11 (8.7%)	3 (2.4%)	3.25	0.71
Average					**3.33**	**0.61**
Performance Expectancy	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Mean**	**Std. Dev.**
Using ET will help me to accomplish tasks more quickly	54 (42.9%)	66 (52.4%)	3 (2.4%)	3 (2.4%)	3.36	0.65
Using ET will improve my efficiency	53 (42.1%)	67 (53.2%)	6 (4.8%)	0 (0.0%)	3.37	0.58
Using ET will improve the performance of relief operations	67 (53.2%)	49 (38.9%)	6 (4.8%)	4 (3.2%)	3.42	0.73
I would find ET useful in daily life	49 (38.9%)	71 (56.3%)	3 (2.4%)	3 (2.4%)	3.32	0.64
Average					**3.37**	**0.65**
Social Influence	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Mean**	**Std. Dev.**
People whose opinions I	64 (50.8%)	54	3 (2.4%)	5 (4.0%)	3.40	0.73

value would prefer me to use ET systems		(42.9%)				
People who are important to me think that I should use ET systems	53 (42.1%)	67 (53.2%)	3 (2.4%)	3 (2.4%)	3.35	0.65
People who influence my behaviour think that I should use ET systems	54 (42.9%)	63 (50.0%)	5 (4.0%)	4 (3.2%)	3.33	0.70
Average					**3.36**	**0.69**
Facilitating Condition	**SA (%)**	**A (%)**	**D (%)**	**SD (%)**	**Mean**	**Std. Dev.**
If the technological infrastructure is ensured at my university, I intend to use this ET	53 (42.1%)	69 (54.8%)	4 (3.2%)	0 (0.0%)	3.39	0.55
If the resources are accessible from anywhere, I would love to use emerging technology	73 (57.9%)	53 (42.1%)	0 (0.0%)	0 (0.0%)	3.58	0.50
I have the necessary knowledge to use emerging technology	55 (43.7%)	68 (54.0%)	3 (2.4%)	0 (0.0%)	3.41	0.54
I can get help from others when I have difficulties using emerging technology	69 (54.8%)	51 (40.5%)	6 (4.8%)	0 (0.0%)	3.50	0.59
Average					**3.47**	**0.55**
Overall Mean					**3.39**	**0.62**

Keys: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree

Result in Table 1 revealed the behavioural intention to use emerging technologies by LIS educators. Regarding specific dimensions, f**acilitating conditions r**anks the highest reflecting educators' willingness to adopt emerging technologies if infrastructure and resources are accessible. Additionally, e**ase of use** scored the lowest though still within the range of strong agreement. Also, the LIS Educators in Southwest Nigeria largely acknowledged the potential benefits these technologies bring to teaching and learning in Library and Information Science (LIS). This positive disposition, however, hinges on whether practical implementation is actually doable. It highlights that often, it's a shortage of resources, not willingness, that puts the brakes on adopting technology. This finding supports well-known technology acceptance models such as Technology Acceptance Model (TAMS), which emphasised that even with a positive attitude and perceived usefulness, inadequate resources availability can significantly hinder actual technology utilisation.

The study further revealed that LIS educators have a positive behavioural intention toward the use of emerging technologies, driven by favourable conditions, expectations of improved performance, and encouragement from their social environment. This finding aligns with Budu, Yinping, & Mireku (2018) findings there is a positive relationship between behavioural intention toward emerging technologies and perceived utility. In the context of LIS education, positive behavioural intention is likely fostered by the increasing integration of technology in educational settings, as well as the perceived benefits of these technologies in enhancing teaching and learning outcomes. As such, fostering a supportive environment and providing adequate resources can further strengthen educators' intention to adopt and utilize emerging technologies.

The findings further revealed that performance expectancy follows closely indicating that educators believe these technologies will improve efficiency and task completion. This corroborates the findings of Alshabeb, Alharbi, Almaqrn, & Albazie (2020) that the constructs of facilitating conditions, performance expectancy, and effort expectancy predict users' behavioural intention to utilise e-learning tools. Findings also showed that while LIS educators find emerging technologies easy to use, further training could enhance ease and comfort in usage. The overall mean score indicates that the educators strongly agree with positive behavioural intentions toward using emerging technologies. Hence, LIS educators have a positive behavioural intention toward the use of emerging technologies, driven by favorable conditions, expectations of improved performance, and encouragement from their social environment.

Research Question 2: What are the challenges of emerging technologies utilisation by LIS educators in library schools in Southwest Nigeria?

Table 2: Challenges of emerging technologies utilisation by LIS educators

Challenges	YES (%)	NO (%)
Insufficient infrastructure	123 (97.6%)	3 (2.4%)
Limited awareness of emerging technologies	122 (96.8%)	4 (3.2%)
Limited digital literacy	110 (87.3%)	16 (12.7%)
High cost of implementation	108 (85.7%)	18 (14.3%)
Inadequate technical expertise	108 (85.7%)	18 (14.3%)
Insufficient funding	106 (84.1%)	20 (15.9%)
Need for continuous training	103 (81.7%)	23 (18.3%)
Security and privacy concerns	101 (80.2%)	25 (19.8%)
Ethical considerations	98 (77.8%)	28 (22.2%)
Higher risk of data loss	86 (68.3%)	40 (31.7%)
Dependence on technology	85 (67.5%)	41 (32.5%)

Result in Table 2 revealed that the challenges faced by LIS educators in utilizing emerging technologies in library schools across Southwest Nigeria are insufficient infrastructure, limited awareness of emerging technologies, limited digital literacy, high cost of implementation and inadequate technical expertise. Without foundational infrastructure, even the most willing

educator cannot effectively employ emerging technologies. The dearth of thorough understanding regarding the scope and possible uses of emerging technologies pertinent to LIS education is a major obstacle. This suggests a gap in professional development and exposure to the most recent developments in LIS. These challenges clearly illustrate a systemic issue in which a confluence of funding limitations, skill shortages, and resource limitations prevents emerging technologies from being widely adopted and used effectively in LIS programs. Eleftheriou and Fasimpaur (2018) emphasised that digital transformation in education requires significant investment in both infrastructure and human resources, which many institutions in developing regions lack.

Hypothesis: There is no significant relationship between behavioural intention and emerging technology utilisation by educators in Library Schools in Southwest Nigeria.

Table 3: Relationship between behavioural intention and emerging technologies utilisation

		Emerging technologies utilisation	**Behavioural intention**
Emerging technologies utilisation	Pearson Correlation	**1**	.556**
	Sig. (2-tailed)		**.000**
	N	**126**	**126**
Behavioural intention	Pearson Correlation	.556**	**1**
	Sig. (2-tailed)	**.000**	
	N	**126**	**126**

Table 3 presents the relationship between behavioural intention and the utilisation of emerging technologies among educators in Library Schools in Southwest Nigeria. The table reveals a moderate positive relationship between the two variables and this relationship is statistically significant**.** Therefore, the null hypothesis, which states that there is no significant relationship between behavioural intention and emerging technology utilisation, is rejected**.** This indicates that stronger behavioural intention among LIS educators are associated with higher levels of emerging technology utilisation.

The findings suggests that stronger behavioural intentions among LIS educators are associated with higher levels of emerging technology utilisation. This finding is consistent with the Technology Acceptance Model (TAM), which posits that behavioural intention is a key predictor of actual technology use (Davis, 1989). This finding further reinforces the importance of improving the facilitating conditions, increasing awareness, and providing support through availability of infrastructure, the overall utilisation of emerging technologies by the LIS educators in Nigeria can be significantly boosted. The ripple effect on the information profession is that the quality of LIS education will be improved, and future information professionals will be better equipped with the necessary skill of the digital age.

In the context of LIS education, the positive behavioural intention toward emerging technologies is likely influenced by the perceived benefits of these tools in enhancing teaching

and learning outcomes. Therefore, fostering a supportive environment that encourages positive attitudes toward technology adoption is crucial for promoting the effective utilisation of emerging technologies in educational settings. Findings also revealed that while still showing strong agreement overall, the dimension of 'ease of use' actually received the somewhat lowest scores across all dimensions. This subtle yet significant finding suggests that although LIS educators usually view emerging technologies as manageable, there is a possibility that there are underlying concerns regarding the complexity, learning curve, and ease of use of these technologies. Consistent integration may be hindered by technologies that are viewed as less intuitive in an environment where technical support or thorough training may be scarce. This suggests that although educators are willing, it may take more work than they would want to learn and incorporate some emerging technology, potentially impacting long-term and sustained use. This further emphasizes how important it is for developers to provide user-friendly interfaces as priority and streamline the integration process for educational technologies.

Conclusion and recommendations

This study investigated the behavioural intention of Library and Information Science Educators to use emerging technologies and found out that LIS educators possess a positive behavioural intention toward using emerging technologies in their pedagogical practice as lecturers. This strong interest demonstrates an awareness by LIS educators of the revolutionary possibilities these technologies present for developing increasing access to information and preparing future information professionals for a technology-driven landscape. However, despite this positive disposition, the study found that impediments such as insufficient infrastructure, limited awareness of emerging technologies, limited digital literacy, high cost of implementation and lack of technical expertise hindered the full exploitation of the emerging technologies.

Additionally, the study found a positive significant relationship between emerging technology use and behavioural intention. This result implies that although a good attitude is absolutely necessary, by itself it is inadequate. The recognized challenges serve as major moderating variables affecting the degree to which this good intention manifests itself in real technology adoption and successful use by the LIS educators. In essence, even with a strong desire to embrace emerging technologies, the LIS educators are constrained by practical limitations.

Based on the findings, the following recommendations were made:

1. Library schools should invest in robust technological infrastructure such as computers, laptops, projectors, smart boards, and other necessary hardware to support effective technology integration in teaching and learning processes by the LIS educators.
2. LIS schools should develop and mandate structured, continuous professional development (CPD) programs specifically focused on building advanced digital literacy and practical skills in relevant emerging technologies
3. Universities at large should identify and support early LIS educator adopters of emerging technologes into teaching and learning to showcase successful integration (peer influence).

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GRIEVANCE REDRESS MECHANISMS FOR BENEFICIARIES OF A HOUSEHOLD UPLIFTING PROGRAM IN KADUNA STATE, NIGERIA

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Abstract
Grievance Redress Mechanisms (GRMs) are vital components of social protection programmes, ensuring transparency, accountability, and trust through effective information management. In Nigeria, the Household Uplifting Programme (HUP), under the National Social Investment Programme (NSIP), provides monthly cash transfers of ₦5,000 to poor and vulnerable households to enhance welfare and resilience. Despite its reach, inconsistencies in grievance reporting and resolution across Local Government Areas (LGAs) undermine programme effectiveness. This study examined the GRM platforms and strategies employed by Grievance Redress Officers (GROs) in Birnin Gwari (n = 50), Lere (n = 60), and Chikun (n = 50) LGAs of Kaduna State using a quantitative survey of 160 beneficiaries. Findings revealed variations in reporting channels: Birnin Gwari relied on GROs, SMS/phone calls, and community leaders; Lere combined all five platforms, including third-party monitors and an electronic application; Chikun used multiple personal and community channels but lacked digital integration. Resolution strategies also differed, highlighting gaps in standardisation and information management. The study recommended a unified, technology-supported GRM framework to strengthen transparency, responsiveness, and equitable treatment of beneficiaries.

Keywords: Grievance Redress Mechanisms, Social Protection, Household Uplifting Programme, Nigeria, Information Management, Programme Accountability

Introduction

Social protection programmes are increasingly recognised as strategic tools for reducing poverty, inequality, and socio-economic vulnerability in low- and middle-income countries. In Nigeria, the Federal Government introduced the National Social Investment Programme (NSIP) to address these challenges through targeted interventions aimed at improving household welfare and resilience. A flagship component of NSIP is the Household Uplifting Programme (HUP)**,** which provides monthly cash transfers of ₦5,000 to poor and vulnerable households (NCTO, 2018). The HUP seeks not only to alleviate extreme poverty but also to strengthen the capacity of households to manage socio-economic shocks, aligning with the broader objectives of the National Social Safety Nets Programme (NASSP)**,** supported by the World Bank (NSIP, 2018).

By 2015, poverty in Nigeria affected approximately 72.5% of the population (NBS, 2015), underscoring the need for structured interventions like HUP. Beyond financial support, the programme incorporates capacity-building services to enhance self-sufficiency and long-term resilience. Effective implementation requires not only timely cash transfers but also mechanisms to ensure accountability, transparency, and procedural justice**,** as emphasised in Nigeria's National Social Protection Policy (2017) and global development frameworks such as the Sustainable Development Goals (UN, 2015)**.**

A crucial element in achieving these objectives is the grievance redress mechanism (GRM)**,** which serves as an information management system for programme beneficiaries. GRMs enable the systematic collection, processing, and resolution of complaints related to registration, payment delays, exclusion errors, or service quality. They function as both a data collection system and a feedback mechanism**,** ensuring that programme administrators receive accurate information to guide decision-making, enhance service delivery, and maintain trust (Kidd, 2015; Ward et al., 2010).

Despite the recognised importance of GRMs, evidence from Kaduna State indicates substantial variation in how grievance mechanisms are implemented across Local Government Areas (LGAs). In Birnin Gwari, beneficiaries rely predominantly on personal contact with Grievance Redress Officers (GROs), SMS, and community leaders, while electronic platforms and third-party monitoring remain underutilised. Lere demonstrates a more advanced approach, combining community leadership channels, third-party monitors, and an electronic grievance application. Chikun relies on multiple personal and community channels but lacks digital integration. These differences suggest gaps in standardisation, system design, and accessibility**,** limiting the effectiveness of grievance resolution and undermining beneficiaries' trust in the programme.

This study situates grievance redress within the framework of information systems**,** highlighting the critical role of GRMs as tools for information collection, processing, and dissemination**.** Effective GRMs ensure that complaints are accurately recorded, categorised, and escalated, providing administrators with actionable data for timely interventions (Veras et al., 2007; Nurse & Devonish, 2007). Conversely, weaknesses in these systems such as inconsistent channels, limited digital access, or poorly defined procedures can compromise programme integrity, produce dissatisfaction among beneficiaries, and reduce the overall effectiveness of social protection efforts.

Understanding the interaction between beneficiaries and grievance systems is therefore essential for enhancing programme transparency, equity, and accountability. By examining the platforms available for grievance reporting and the strategies employed by GROs across Birnin Gwari, Lere, and Chikun LGAs, this study contributes to both social protection scholarship and information management research in development contexts.

Conceptual Framework.

This study conceptualises grievance redress mechanisms (GRMs) within the Household Uplifting Programme (HUP) as a structured information management system. The framework illustrates how grievance data is captured, processed, and converted into actionable outcomes, thereby linking the flow of information to programme effectiveness. It consists of three primary components: input, process, and output, moderated by contextual and beneficiary-specific factors.

Input: Grievance Information

Beneficiaries generate complaints related to enrolment errors, payment delays, exclusion from the programme, or service quality issues. These complaints constitute raw data that must be accurately recorded for effective resolution. The completeness and clarity of this input directly influence the efficiency of subsequent information processing.

Process: Information Management and GRM Platforms

Grievances are handled through multiple channels, including:

- Direct engagement with Grievance Redress Officers (GROs)
- Community leaders or local heads
- SMS or telephone communication
- Third-party monitors
- Electronic applications

During this stage, grievances undergo intake, classification, verification, and escalation. The quality, accessibility, and standardisation of these platforms determine how efficiently grievances are processed. This stage reflects fundamental principles of information systems (IS) including data accuracy, timeliness, storage, and retrieval which are critical for informed decision-making (Laudon & Laudon, 2020).

Output: Resolution and Feedback

Effectively processed grievances lead to:

- Corrective actions, such as payment adjustments or procedural clarifications
- Feedback communicated to beneficiaries
- Data-driven insights for improving programme delivery

Efficient information management ensures timely, fair, and transparent grievance resolution, strengthening beneficiary trust, programme accountability, and overall effectiveness.

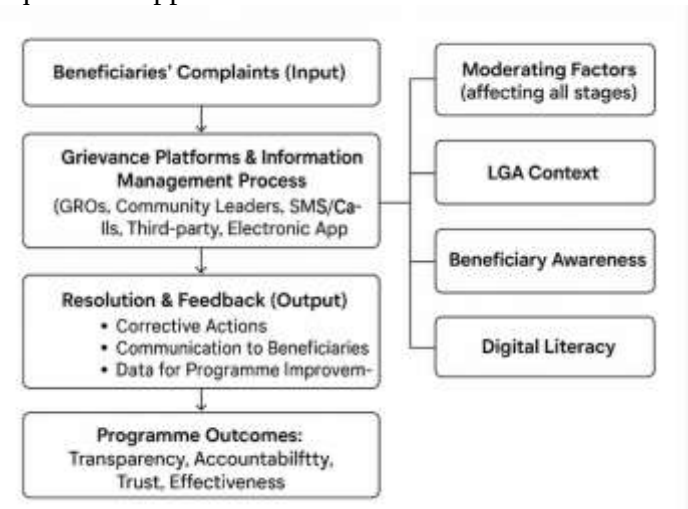
Moderating Factors

The effectiveness of GRMs is influenced by:

- Local Government Area (LGA) Context: Institutional arrangements, technological infrastructure, and staff capacity
- Beneficiary Awareness: Knowledge of available grievance channels
- Digital Literacy: Ability to navigate electronic applications

Framework Rationale

This study underscores the critical link between data flow and programme outcomes. Weak or inconsistent GRM processes may result in delayed responses, misclassified complaints, and inequitable treatment, thereby undermining programme credibility. Conversely, robust GRMs enhance transparency, provide actionable data for administrators, and ensure responsive, equitable support to beneficiaries.



Conceptual Framework

Statement of the Problem

Effective grievance management is essential for fairness, transparency, and accountability in social protection programmes. Central to this process are information systems (IS) and information management (IM) practices that enable systematic collection, processing, storage, and dissemination of grievance data. In Kaduna State, beneficiaries of the Household Uplifting Programme (HUP) face challenges in reporting and resolving grievances, including inconsistent reporting platforms, absence of a unified grievance-handling strategy, limited access to grievance officers, and inadequate sensitisation. While some local government areas (LGAs) rely on traditional mechanisms such as community leaders, others employ digital applications or third-party monitoring systems. These variations reflect gaps in the design and management of information systems for grievance redress, which may compromise programme transparency, efficiency, and trust.

Globally, grievance redress is recognised as a critical component of effective social protection, ensuring beneficiaries can report issues related to enrolment, payment delivery, monitoring, and service quality. For these systems to be effective, grievance information must be captured, managed, and communicated using standardised, reliable, and accessible processes. Weak or inconsistent systems result in delays, inefficiencies, beneficiary frustration, and reduced programme credibility.

Evidence from Kaduna State indicates substantial variation in grievance-handling practices across LGAs. Some beneficiaries rely solely on verbal reporting through community leaders, while others use phone-based, digital, or third-party reporting channels. Such inconsistencies suggest the absence of a harmonised information system, leading to unequal access to redress and confusion among beneficiaries regarding reporting channels. Moreover, limited sensitisation and partially developed grievance procedures further constrain effective information management.

This study, therefore, investigated the practices employed by the National Social Safety Nets Coordinating Office (NASSCO) for grievance redress in the HUP to understanding these processes for identifying gaps in accessibility, consistency, and effectiveness, and for enhancing the programme's ability to deliver equitable, transparent, and accountable support to beneficiaries in Kaduna State.

Research Questions

The study was guided by the following research questions:

1. What grievance redress mechanisms and platforms have been established by NASSCO for beneficiaries of the Household Uplifting Programme in Kaduna State?
2. How are beneficiaries' grievances addressed through the grievance redress mechanisms implemented by NASSCO for the Household Uplifting Programme in Kaduna State?

Literature Review

Overview of Grievance Redress Mechanisms in Social Protection

Grievance Redress Mechanisms (GRMs) are essential components of social protection systems as they promote transparency, accountability and fairness in programme implementation. They provide structured avenues through which beneficiaries can lodge complaints, seek clarifications or appeal decisions relating to registration, targeting, payments or service delivery. Effective GRMs ensure that errors, delays or misconduct are promptly addressed, thus strengthening beneficiaries' confidence in the programme and supporting its wider credibility (Kidd, 2015).

In the context of cash transfer programmes, grievance redress platforms help identify operational weaknesses, systemic irregularities and disparities that could undermine programme reputation and efficiency. Beyond resolving individual complaints, GRMs contribute to improved programme design by highlighting recurrent issues that require institutional attention.

Platforms for Grievance Information Management

Cash transfer programmes typically employ multiple platforms to enable accessible and effective grievance reporting. These platforms vary depending on the operational structure and technological capacity of the implementing agency.

i. **Tier One: Payment Service Providers.** This is the first level of grievance handling, typically managed by banks or mobile money agents in contexts where financial institutions deliver programme benefits. At this level, beneficiaries report issues such as missing payments, malfunctioning payment tokens or card-related challenges. In

countries with robust financial systems, payment providers integrate these complaints into their established customer service and helpline processes.

ii. **Tier Two: Programme Administrators.** This tier includes local and state programme offices, as well as implementing agencies working in collaboration with community structures. Complaints at this level may relate to targeting errors, registration challenges, misinformation or operational misconduct. However, the effectiveness of this mechanism depends on administrative capacity, beneficiary awareness and the availability of trained grievance officers.

iii. **Tier Three: Independent Oversight Bodies.** A final level of appeal is often managed by independent bodies such as human rights commissions, ombudsman offices or judicial authorities. This tier is designed to address complaints that cannot be resolved administratively or that require independent arbitration. Examples include the Department for Social Development in South Africa, Ombudsman structures in Argentina and provincial oversight boards in Turkey. International evidence shows that multi-tiered platforms broaden accessibility and improve grievance resolution.

For instance, India's National Rural Employment Guarantee Act (NREGA) employs community social audits and public hearings to enhance transparency and ensure local accountability.

Uganda's Social Assistance Grants for Empowerment (SAGE) programme demonstrates how structured grievance processes can operate effectively even in resource-limited settings. The SAGE model incorporates:

- organised complaint collection points at pay stations;
- robust payment monitoring systems;
- proactive auditing to identify irregular transactions; and
- collaboration with local leaders as first points of contact for beneficiaries.

Theoretical and Practical Foundations of Grievance Handling

Grievance redress mechanisms serve both procedural and informational functions. Procedurally, they outline the steps and timelines for receiving complaints, investigating issues, and resolving grievances. Informationally, they generate data that support accountability, programme adjustments, and prevention of recurring problems (Nurse & Devonish, 2007; Kidd, 2015). In social protection systems, GRMs are expected to operate based on the principles of accessibility, impartiality, confidentiality, and timeliness**.** These principles shape the quality of grievance handling, influencing whether beneficiaries can safely and effectively seek redress and whether systemic issues are recognised and addressed.

Stages of Grievance Handling: Receive, Process, Resolve

Programme literature consistently conceptualises grievance handling as a three-stage process: intake, processing, and resolution, a structure that aligns directly with the second research question in this study.

Receipt (Intake)

This stage concerns the channels through which beneficiaries submit complaints. Common reporting channels include face-to-face interaction with GROs or community leaders, telephone calls/SMS, third-party monitors, and electronic applications. The effectiveness of intake depends on accessibility; factors such as literacy, distance, language barriers, and cost may prevent beneficiaries from using available channels, thereby leaving many grievances undocumented (Veras et al., 2007).

Processing (Investigation and Classification)

After a grievance is recorded, it undergoes investigation and categorisation. This stage requires clear assignment of responsibilities, evidence-gathering (such as field verification), and classification of complaints into categories such as payment errors, exclusion errors, fraud, or service delivery issues. Programme administrators commonly depend on GROs for preliminary verification and on payment service providers for investigating transactional complaints (Kidd, 2015).

Resolution (Action and Feedback)

Resolution involves taking corrective action such as rectifying payment issues, providing compensation, or revising procedures and communicating outcomes to the complainant. Timely and transparent feedback strengthens beneficiary trust, whereas delays or failure to follow up undermine the legitimacy and credibility of the GRM (Dwivedi, 2009).

Platform Design and Institutional Arrangements

The design of grievance-reporting platforms significantly influences the effectiveness of each stage of grievance handling. Electronic systems can improve speed, consistency, and tracking, but their usefulness depends on adequate programming, language recognition, and digital literacy among beneficiaries. Third-party monitors can enhance neutrality and oversight but require clear guidelines and resource support. Community-based mechanisms, involving heads of community or local leaders, often increase accessibility and cultural relevance, though they may introduce the risk of bias or power imbalances if not clearly regulated (Ward et al., 2010).

Institutional arrangements also determine the coherence and efficiency of grievance handling. Clearly defined roles for GROs, payment service providers, state GRM units, and oversight bodies help ensure proper escalation and resolution of complaints. Multi-tiered arrangements progressing from frontline responders to state-level officers and ultimately to independent review bodies are widely recommended because they facilitate timely responses while providing channels of appeal for more complex or unresolved issues (NASSCO, 2019).

Research Methodology

This study investigated the grievance redress mechanisms available to beneficiaries of the Household Uplifting Programme in Kaduna State, Nigeria. A quantitative research design was adopted because it enables the systematic collection and analysis of numerical data related to the grievance-management platforms and the processes through which beneficiary complaints

are addressed. According to Kothari (2004), a research design specifies the framework for data collection and analysis in a way that ensures relevance to the research objectives while maintaining efficiency in time, effort, and resources. Thus, the design for this study provided a clear structure for obtaining evidence that adequately addressed the research questions. The population for the study comprised 977 beneficiaries of the Household Uplifting Programme drawn from Birnin Gwari, Lere, and Chikun Local Government Areas of Kaduna State. Out of this population, a sample size of 200 beneficiaries was selected using a purposive sampling technique to give beneficiaries equal chances of inclusion and to ensure that individuals with direct experience of grievance reporting were captured. A structured questionnaire was used as the primary instrument for data collection. This aligns with the quantitative approach, where information is gathered using standardised tools and analysed numerically. A total of 200 questionnaires were administered, and 160 were duly completed and returned, representing an 80% response rate**.** Before data collection, all beneficiaries were informed about the purpose of the study, voluntary participation, confidentiality, and their right to withdraw at any time. Verbal or written informed consent was obtained from all participants in accordance with ethical research standards. Data collected from the respondents were analysed using descriptive statistics**.** The results were presented in tables to enhance clarity and ease of interpretation.

Research Question 1: What grievance redress mechanisms are available to beneficiaries of the Household Uplifting Programme in Kaduna State?

Table 1: Grievance Redress Mechanisms Available Across LGAs (N = 160)

	Mechanism	Yes (f)	Yes (%)	No (f)	No (%)
Birnin Gwari (N = 50)	GROs	50	100%	0	0%
	SMS & Phone Calls	50	100%	0	0%
	Head of Community	50	100%	0	0%
	Third-Party Monitors	0	0%	50	100%
	Electronic Application	0	0%	50	100%
Lere (N = 60)	GROs	60	100%	0	0%
	SMS & Phone Calls	0	0%	60	100%
	Head of Community	60	100%	0	0%
	Third-Party Monitors	60	100%	0	0%
	Electronic Application	60	100%	0	0%
Chikun (N = 50)	GROs	50	100%	0	0%
	SMS & Phone Calls	50	100%	0	0%
	Head of Community	50	100%	0	0%
	Third-Party Monitors	50	100%	0	0%
	Electronic Application	0	0%	50	100%

Source: *Field Survey*

Table 1 presents the grievance-reporting mechanisms available to beneficiaries across the three LGAs. In Birnin Gwari (N = 50), all respondents reported using GROs, SMS/phone

calls, and the Head of Community as their primary grievance channels. None reported using third-party monitors or the electronic application.

In Lere (N = 60), all beneficiaries indicated access to GROs, the Head of Community, third-party monitors, and the electronic application, while none reported using SMS or phone calls as a grievance channel. In Chikun (N = 50), beneficiaries reported multiple channels, including GROs, SMS/phone calls, the Head of Community, and third-party monitors. However, they did not use the electronic application, similar to Birnin Gwari.

These results showed variations in the availability and use of grievance platforms across the three LGAs. The findings showed that beneficiaries across the three LGAs had access to different grievance-reporting mechanisms, although the extent of availability varied. The Head of Community emerged as a consistently used channel in all LGAs, demonstrating the continued reliance on local leadership structures for resolving programme-related issues.

In Birnin Gwari, grievance redress was based mainly on personal interaction, as all respondents reported using GROs, SMS/phone calls, and the Head of Community. The absence of third-party monitors and the electronic application indicated a limited adoption of more formal or technology-enabled grievance platforms. Lere displayed the most comprehensive and advanced grievance system. Beneficiaries reported access to all five mechanisms, including third-party monitors and the electronic application. This reflected an effort to strengthen structured oversight and introduce digital options. However, despite its availability, the electronic application faced practical limitations. The system did not capture all types of grievances, especially those expressed in natural language or those not preprogrammed into the application. This restricted its usefulness and may have led to unresolved or inaccurately classified complaints. Chikun beneficiaries accessed a broad mix of channels, including GROs, SMS/phone calls, the Head of Community, and third-party monitors. However, similar to Birnin Gwari, the electronic application was not used, pointing to uneven uptake of digital tools across the LGAs.

The variations across LGAs indicated the absence of a uniform grievance-redress framework. While multiple platforms existed, their functionality and availability differed, potentially affecting the consistency of beneficiary experiences. A more standardised and robust mechanism is needed, one capable of handling diverse complaints, interpreting unique issues, and ensuring timely feedback. Strengthening grievance-redress structures aligns with best practices in social protection programmes, where accessibility, responsiveness, and effective follow-up remain essential to programme credibility and beneficiary trust.

Research Question 2: What strategies are used to address and resolve beneficiary grievances?
Table 2: Strategies Used by GROs Across LGAs (N = 160)

LGA	Strategy	Yes (f)	Yes (%)	No (f)	No (%)
Birnin Gwari	No defined strategy	50	100%	0	0%

(N=50)					
	Structured approach (sensitisation & escalation)	0	0%	50	100%
	Direct visits to beneficiaries	0	0%	50	100%
Lere (N=60)	No defined strategy	0	0%	60	100%
	Structured approach (sensitisation & escalation)	60	100%	0	0%
	Direct visits to beneficiaries	0	0%	60	100%
Chikun (N=50)	No defined strategy	0	0%	50	100%
	Structured approach (sensitisation & escalation)	0	0%	50	100%
	Direct visits to beneficiaries	50	100%	0	0%

Source: *Field Survey*

The findings revealed significant differences in the strategies employed by GROs across the three LGAs. Birnin Gwari reported no defined strategy, suggesting gaps in coordination, accountability, and operational guidance for addressing beneficiary complaints. The absence of a structured procedure indicated that grievance handling might be informal, inconsistent, or dependent on individual discretion.

Lere, in contrast, demonstrated a fully structured approach to grievance management. Beneficiaries reported that GROs followed systematic processes that included sensitisation, documentation, case review, and escalation to higher levels where necessary. This approach, supported by the use of the electronic application, reflected a more organised and proactive grievance-redress environment. Chikun relied primarily on direct visits to beneficiaries, indicating a personalised and responsive method of addressing complaints. While this approach ensured immediate contact and feedback, it may lack the documentation, standardisation, and institutional structure that characterise more formal strategies.

The variations across the LGAs pointed to a lack of uniform organisational direction for grievance management within the programme. As Dwivedi (2009) emphasised, strategy provides clarity, frames organisational actions, and guides scope. Without a clearly defined strategy, grievance redress risks becoming inconsistent, potentially affecting equity, timeliness, and overall programme effectiveness. Lere's structured model represents a stronger institutional framework, while the absence of strategy in Birnin Gwari and the informal approach in Chikun indicate areas where strengthened guidance and standardisation are needed.

Discussion

The findings showed that grievance-reporting mechanisms varied considerably across the LGAs, with Birnin Gwari relying solely on personal channels such as GROs, SMS/phone calls and community leaders, while Lere demonstrated the most diversified system, including third-party monitors and an electronic grievance application. Chikun adopted multiple platforms but also lacked digital integration. These patterns align with earlier studies emphasising that many social protection programmes in low-income contexts depend heavily on traditional, community-based structures for grievance reporting due to limited technological capacity (Amin & Pritchett, 2017; Barrientos, 2013). The reliance on community heads mirrors findings by

Devereux (2016), who noted that local intermediaries remain central to grievance communication in cash-transfer programmes across sub-Saharan Africa. However, the more advanced mechanisms identified in Lere resonate with World Bank (2016) recommendations, which highlight the importance of integrating digital reporting tools to improve transparency and traceability. Nonetheless, the limited functionality of the electronic application observed in this study reflects concerns raised by Smith and Subbarao (2018), who argue that digital systems, while promising, often fail to capture unstructured or context-specific complaints in environments with low digital literacy. Overall, the variation across LGAs reinforces the literature that weak standardisation and unequal access to reporting platforms undermine beneficiaries' ability to seek timely and effective redress.

The study revealed significant differences in the strategies used to resolve grievances across LGAs. Birnin Gwari had no defined strategy; Lere implemented a structured system involving sensitisation and escalation, while Chikun relied mainly on direct visits to beneficiaries. These findings reflect observations by Dwivedi (2009) that the absence of a clear strategy limits organisational direction and weakens the accountability framework of public programmes. The structured approach in Lere aligns with Global Social Protection Network reports (UNICEF, 2018; World Bank, 2017), which emphasise that well-defined grievance procedures improve response time, documentation and programme credibility. Conversely, the informal, visit-based model seen in Chikun mirrors the adaptive methods reported by Hagen-Zanker and Mallett (2016), who found that frontline staff in social protection programmes often resort to personalised responses in contexts where formal systems are weak or poorly communicated. However, while such direct engagement may enhance responsiveness, it lacks the standardisation necessary for fairness and record-keeping concerns echoed by OECD (2019) in its analysis of grievance practices in developing countries. The inconsistencies observed across LGAs therefore support broader literature showing that without a harmonised strategy, grievance redress becomes fragmented, leading to unequal treatment and reduced beneficiary trust in programme systems.

Findings

The study found the following:

1. The study found that grievance mechanisms differ across LGAs: Birnin Gwari relies on personal contact and calls, Lere combines community contact with an electronic application, while Chikun uses multiple channels, including third-party monitors. This variation indicated a lack of uniform grievance-reporting platforms across the programme.
2. The resolution strategies vary widely, with Birnin Gwari having no formal strategy, Lere using sensitisation and digital escalation, and Chikun resolving issues through direct visits. These inconsistencies show gaps in coordination and the absence of a unified grievance-handling approach.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. A standardised grievance-reporting system should be implemented across all LGAs, ensuring equal access to all beneficiaries. The electronic application should be improved to capture diverse and unique complaints effectively.
2. The programme should develop a clear, uniform grievance-resolution strategy for all LGAs, supported by regular training for GROs. Sensitisation and follow-up procedures should be standardised to ensure fairness, accountability, and timely resolution.

Conclusion

The study concluded that the grievance redress mechanisms of the Household Uplifting Programme in Kaduna State are unevenly implemented across Birnin Gwari, Lere, and Chikun LGAs. While multiple grievance-reporting channels exist, they are not uniformly available, and some LGAs lack defined strategies for handling complaints. Lere LGA demonstrated a more structured approach through sensitisation and digital escalation, while Chikun LGA relies on direct visits, and Birnin Gwari LGA operated without a proper strategy. These inconsistencies weaken the programme's accountability system and reduce the effectiveness of grievance handling. A standardised and well-coordinated grievance redress framework supported by technology, regular training, and community sensitisation is essential for strengthening transparency, protecting beneficiary rights, and enhancing service delivery in the Household Uplifting Programme.

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EFFICACY OF LIBRARY ORIENTATION PROGRAM ON USE OF INFORMATION RESOURCES BY UNDERGRADUATE STUDENTS OF THE SCHOOL OF EARLY CHILD EDUCATION, FEDERAL UNIVERSITY OF EDUCATION, ZARIA, NIGERIA

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Abstract

This paper investigated the Efficacy of Library Orientation Program on the Use of Information Resources by Undergraduate Students of School of Early Child Education, Federal University of Education, Zaria" with specific emphasis on the types of library orientation programs for undergraduate students of the School of Early Education at FUE, Zaria, the relevance of library orientation programs on the use of information resources, the types of information resources used by these students, and the challenges they face in using these resources. The research methodology employed for the study was quantitative with a survey research design. Census sampling was adopted for the study, which included the entire population involved. A self-structured questionnaire was used to collect the data. The data collected for this study were analysed using frequency and simple percentages. The study revealed that library instruction and use of library were the most available library orientation programs for the undergraduate students of School of Early Child Education, FUE, Zaria; the study also discovered that textbooks, electronic resources, and projects were the most used information resources by the undergraduate students of School of Early Child Education, FUE, Zaria and poor internet connectivity, lack of competent staff and inadequate information resources were the major challenges faced by the undergraduate students of School of Early Child Education, FUE, Zaria. An analysis of the returned questionnaires supported the conclusion that the goal of library orientation is to help users become proficient in research and lifelong learning. This also recommends that more time should be allocated for library orientation sessions and practical lectures on library use.

Keywords: Efficacy, Library, Orientation, Program, Use, Information Resources, Undergraduate students, School of Early Education, Federal University of Education (FUE), Zaria

Introduction:

The library is one of the most essential sectors of tertiary institutions, saddled with the responsibility of selecting, acquiring, receiving, processing, organizing, disseminating, and securing all sources of information that are in print and non-print to meet all the immediate needs of all members of the academic environment (staff, students, and researchers). Academic libraries are information centers that support the core mission of their parent institutions by promoting teaching, learning, and research activities of faculty, departments, and students. Academic libraries advanced some techniques and programs by meeting the informational needs of their society to augment teaching, learning, and research activities of the community. By taking into consideration the continuous growth in library collections and technological

development in information handling, retrieval, and use, there is a need to organize sufficient library orientation to both new and old registered library users (Quadri & Olutoki, 2022). However, Ilori (2019) points out that the degree to which information resources are used is primarily determined by their availability. In another study, Popoola and Haliso (2009) state that information resources are information-bearing materials available in both print and electronic formats. The materials are not limited to textbooks, but resources such as journals, indexes, abstracts, newspapers and magazines, reports, CD-ROMs, databases, internet/email, video tapes/cassettes, diskettes, magnetic disks, computers, and microforms. According to Manuwa et al. (2018) asserts the importance of library information resources has been amplified in the digital era owing to technological developments and evolving information required by users.

The university library is made compulsory to ensure that the library patrons, especially the students to access the vast collections so as to promote teaching, learning, and research at the university. Agyeiku (2022) posits that orientation is one of the important tools used by the University of Education, Winneba Library to introduce new students and old students to its collections and access to resources. Therefore, without library orientation, the library patrons may find it difficult to identify, locate, access, or navigate the library. Library user education also known as library orientation, is a program developed by librarians or educational institutions to familiarize library clientele with the information resources and services. It is their primary objective to educate users on the general use of information resources. According to Goldman (2016). However, both the new and old undergraduate students who receive an orientation on the use of library information resources and services are more likely to seek for help for course papers, assignments, projects, and presentations. Manuwa et al. (2018) commended the introduction of library orientation in tertiary institutions to ensure that students have the intellectual ability and skill to access and retrieve information as well as to construct a framework for learning and research purposes. However, it remains essential for librarians and faculty to collaborate closely in designing orientation programs that are relevant, engaging, and aligned with curriculum needs. The impact of library orientation goes beyond the number of years that students spend in academic institutions.

Statement of the Problem

Library orientation programs are organized to get students used to the library and what it offers thereby making them masters in the use of the library as well as provides them with an impression on the resources and services the library offers and also on how to use the library as this will help to boost the confidence of its users making them life-long learners and helping them stand out in their academics (Quadri And Olutoki, 2024). In other words, library orientation is an academic program designed by higher education institutions to educate library users on how to effectively use information resources and services (Esse, 2014).

However, despite the library's efforts to educate students on using the library and the importance of information resources. The researcher observed that the undergraduate students exhibit low competency in the effective use of information resources to search and locate from the library's collection holdings. Therefore, it is either that they were not effectively instructed or

library staff do not assist them in using the right resources to source for the right information, thereby they may resort to untrusted sources such as social media, Google search, cybercafé, among others as their sources of information for their academic work. This prompts the researcher to raise the question of what could have led to low use of the information resources that are available to them. Could this be as a result of lack of user education or lack of instruction? To support this assertion, Adjei, Frimpong & Dogbe (2021) ascertained that there is a gap that needs to be filled to encourage the use of the library. Ogbomo (2023) discovered that students are found wandering from one bookshelf to another trying to locate vital library resources, which results in poor academic performance. The problem is that after the orientation, there still exists low patronage of library information resources and services. Hence, this motivates the researcher to investigate the efficacy of library orientation program on the use of information resources by undergraduate students of School of Early Child Education, Federal University of Education, Zaria.

Objectives of the Study

The following objectives were formulated to answer the questions

1. To identify the type of library orientation programs available for undergraduate students of School of Early Child Education, Federal University of Education, Zaria.
2. To find out the relevance of library orientation programs on use of information resources by undergraduate students of School of Early Child Education, Federal University of Education, Zaria.
3. To find out the type of information resources used by undergraduate students of School of Early Child Education, Federal University of Education, Zaria.
4. To identify the challenges faced by undergraduate students in using information resources by Undergraduate students of School of Early Child Education, Federal University of Education, Zaria.

Library Orientation Programs

The Library Orientation program is described as the process of educating students to become aware of the library's existence, its organization, information resources, and services available to them. Ibiodi as cited by Adjei, Frimpong & Dogbe (2021), asserts that library orientation programs form part of the numerous activities in universities on information literacy training, which is a form of library user education. Ibiodi further expatriates that this may be accompanied by library guidelines, programs, one-on-one guidelines (through reference administration), and the engagement of guide manuals. The orientation provides the medium for students to be taken and shown around the various departments of the library, with handouts and leaflets underlining some essential materials and some important aspects of the introductory lecture on the use of the library, as well as providing brief but detailed demonstrations on how to find and recover relevant materials (Onwuchekwa, 2019). According to Navarro (2018), libraries must establish orientation programs that acquaint students with the library. In addition, they advocated for the implementation of a curriculum on library skills instructed by professional librarians. Diverse nomenclatures have been employed to delineate structured and unstructured library initiatives aimed at optimizing the utilization of library resources. User education refers to

the systematic process of instructing individuals on how to effectively and efficiently utilize the resources available in a library. Various techniques for enhancing proficiency in library usage encompass individualized sessions, formal library orientation, classroom instruction, and orientation courses. As per the definition provided in the Collins Concise Dictionary (2005), the term "orientation" refers to the process of adapting or aligning oneself or one's ideas with the surrounding environment or circumstances. The efficacy of a library's orientation program is contingent on meticulous planning, a comprehensive understanding of user psychology, and the allocation of resources by reference librarians.

According to Iheaturu (2017), user education aims to instruct young individuals on how to effectively utilize the library, familiarize them with the library's resources, foster their personal and intellectual growth, equip them with the ability to conduct research, acquire and retrieve pertinent information, and present their discoveries in a manner that is deemed acceptable by their colleagues. The library orientation program is crucial for the effective use of the library to facilitate information gathering and utilization to improve students' academic performance (David-West, 2020). Bhatti (2012) reported on the Library Orientation Program of the Philip Weitner Library which serves as a means of providing an information literacy experience designed to build expertise in mining the wealth of resources available to members of the 21st-century college campus. Despite the significant benefits, the effectiveness of library orientation programs varies depending on how well the program is organized and delivered. Passive tours or generic presentations may have a negative impact, whereas interactive sessions that include hands-on activities and assessments tend to result in better retention and application of skills (Adindu, Achebe, & Chibuike, 2020). Additionally, the incorporation of digital tools, including virtual library tours, video tutorials, and online quizzes, has made it easier for students and cater to various learning styles, especially in the post-pandemic era where hybrid learning is prevalent (Andrade, 2021).

Relevance of Library Orientation Programs

Ashikuzzaman (2024) identified the following as the relevance of library orientation programs such as familiarization with library resources**,** understanding library services, learning library policies and procedures, developing **information literacy** skills, promoting accessibility and inclusivity, encouraging lifelong learning, promoting digital literacy, demonstrating research strategies, highlighting special collections and archives**,** addressing plagiarism and academic integrity**,** and offering continuing education opportunities. Besides initial orientation sessions, libraries may offer ongoing workshops, tutorials, and resources to support continued learning and skill development. These opportunities may cover topics such as advanced research methods, data management, scholarly communication, and emerging trends in information technology. This provides users with a sense of awareness of the library and the services it can provide. The orientation provides users with education on the general use of the library, Namugera (2017). There are several types of library orientation programs such as lecture by the librarian, library tour, a handbook of library orientation, a video documentary on the library and its services.

Types of information resources

Information resources refer to a collection of library holdings available in school libraries that promote curricular and personal information needs, including books, magazines, newspapers, pamphlets, microfiche, microfilm, films, disc records, filmstrips, slides, prints, audiotapes, videotapes, compact discs, and computers. Laila, cited by Mohammed, Khan & Ansa (2021), categorized information resources as follows: reference materials, textbooks, journals, databases, newspapers, conference proceedings, websites, subject gateways, statistics, search engines, almanacs, and bibliographies.

Use of Information Resources by Undergraduate Students

The libraries are established to play vast roles within their community. The platform functions as an educational space for students to acquire knowledge and remain current on the social, political, and economic climate of their community and the global sphere. Additionally, it offers supplementary reading materials that aim to expand the students' knowledge and appreciation of their cultural heritage, as well as enhance their moral and intellectual perspectives. The academic personnel are among the library's diverse user base that anticipates the provision of resources by the library to augment their pedagogical and scholarly pursuits. The course on information literacy requires students to possess the capacity to define a problem, formulate a plan to collect information, and effectively locate and communicate pertinent resource materials. Moreover, this will facilitate their ability to utilize, modify, and appraise the information, thereby fulfilling the requirements of the information literacy program (Leckie et al., 2016). The availability of high-quality library resources and services is crucial for part-time students to achieve academic and research excellence through qualitative learning. Research has indicated that several institutions do not prioritize the information requirements of part-time learners. In order to promote equitable access to library resources and services, it is imperative that libraries fully leverage information and communication technologies (ICTs) to optimize the flow, organization, and utilization of pertinent information. This will ultimately enhance the scope and caliber of library services provided to patrons.

Challenges faced by undergraduate students in the Use of Information Resources

Libraries in Universities are set up to provide user-centered services to meet students' needs. This function is performed through library user education, which is expected to provide students with the vast array of information resources necessary for their problem-solving, academic pursuits, and life-long learning (Haruna, Ajogwu, Alaku & Saidu, 2024). Educating undergraduate students on the need for using information resources available in Nigerian Universities' Libraries is faced with some constraints. Also, in another study, Sambo, Ntogo, and Eda (2022) investigated the challenges faced by undergraduate students in the use of EIRs in universities in Southwest Nigeria through a quantitative approach with a survey method. The study discovered the cost of access, poor power supply, absence of proper maintenance as well as poor funding as the major problems confronting the use of information resources in universities. Nkechi (2015) identifies the following as other constraints that may impede the acquisition of library user skills in tertiary institutions. These include a lack of well-equipped libraries, lack of confidence in the use of libraries, the dependence of students on lecture notes

and textbooks for everything, lack of information resources for learning, teachers' mode of Orientation not adequate, lack of funds for library user programs implementation, library staff not properly equipped to attend to students, constant power outage, no period in the time table for the teaching of the use of the library, poor learning environments, lack of administrative support. According to Okonoko, Atanda, and Brume-Ezewu (2018) observed that undergraduate students face several challenges in using information resources, such as lack of internet and photocopying facilities (92%), inadequate materials (74%), poor ICT infrastructure and user education, unfavourable library conditions (68%), low awareness of resources (63%), and poor reading environments (52%). Mohammed (2023) identified several major challenges faced by undergraduate students in tertiary institutions. These include difficulty in retaining essential information or developing practical skills, limited staffing, outdated equipment, and lack of access to online tutorials all of which can hinder the effectiveness of digital library orientation efforts, especially in resource-constrained institutions. Another concern is that not all students attend or actively engage with the program, particularly when participation is neither compulsory nor incentivized. In some cases, language barriers or poor communication by the facilitators reduce understanding among students from diverse backgrounds. Lastly, without ongoing reinforcement or follow-up sessions, students may forget or overlook key services introduced during orientation. Therefore, these challenges underscore the need for continuous improvement, personalization, and stronger institutional support for library instruction programs.

Methodology:

The study adopted a quantitative research methodology with a descriptive survey design. This design was found usable for the study because it explores the opinions and experiences of undergraduate students on the efficacy of library orientation programs on the use of information resources in the School of Early Child Education, FUE, Zaria. The three hundred (300) undergraduate students of the School of Early Child Education academic session constituted the population of the study. Since the population was relatively small and manageable, the census sampling technique was adopted for the study. According to Bernard, as cited by Hashim (2025), states that if a population is relatively small and manageable, it can be used for the conduct of the study. A self-structured questionnaire was used to collect data for this study. Data collected for the study were analysed using frequency distribution and simple percentages.

Response Rate

Out of the 300 questionnaires distributed to the respondents, a total of 261 were duly completed and found usable, thus, 84% response rate.

Data Analysis and Discussion

Research question one (1): Identify the types of library orientation programs available for undergraduate students of School of Early Child Education, FUE, Zaria. The respondents were asked to indicate the type of library orientation programs listed in the Table.

Table 1: Types of Library Orientation Programs Available for Undergraduate Students of School of Child Education, Federal University of Education, Zaria

SN	Library Orientation Programs	Frequency	Percentage
1	Library Instruction	102	39.1
2	User awareness	38	14.6
3	Library guide	5	1.9
4	Library tour	12	4.6
5	Information literacy instruction	19	7.3
6	Bibliographic instruction	3	1.4
7	Library newsletter	11	4.2
8	Use of library	71	27.2
	Total	**261**	**100**

Researcher's Computation 2025

Table 1 above shows the types of library orientation programs available for undergraduate students of the School of Child Education, Federal University of Education, Zaria. The results revealed that 102(39.1%) and 71(27.2%) of the respondents indicated that the type of library orientation programs available for the undergraduate students were library instruction and use of library. This implies that the use of the library as a course in tertiary institutions would enable the library users to identify the information searching techniques in the library to make better use of the library to satisfy their immediate information needs. However, 5(1.9%), and 3(1.4%) respectively showed that library guide and bibliographic instruction available for the undergraduate students are not commonly used. This showed that library guide and bibliographic instruction were not frequently used to orient the library users. This finding is in agreement with the study of Haruna, Ajogwu, Alaku & Saidu (2024), who discovered that the library orientation programs available for undergraduate students were done through library instruction and the use of the library. This could be that they make little impact in training the library clients with the essential skills and knowledge on how to use the library effectively.

Research question two (2): Identify the relevance of library orientation programs on use of information resources by undergraduate students of the School of Early Child Education, Federal University of Education, Zaria. The respondents were asked to indicate the relevance of library orientation programs listed in the Table below:

SN	Relevance of Library	Frequency	Percentage
1	It encourages lifelong learning,	82	31.4
2	It develops my reading culture	38	14.6
3	It has greatly improved my ability to retrieve needed information from the library	20	7.7
4	It enhances my capacity to carry out research	12	4.6
5	It inculcates in me the ability to think critically	19	7.3
6	It familiarizes me with information resources	51	19.5
7	It helps me to develop information literacy	11	4.2
8	It has increased my motivation to use the library	20	7.7

	Total	**261**	**100**

The relevance of library orientation programs on the use of information resources, the students indicated that it greatly encourages lifelong learning with a score of 82(31.4%); 51(19.5%) of the respondents indicated they are familiar with information resources, and 38(14.6%) indicated that it develops their reading culture. However, 12 (4.6%) and 11 (4.2%) of the respondents, respectively, reported that developing information literacy and the capacity to carry out their research were rated low. This implies that the library orientation program has a positive effect on the quality of students' education as it enhances a meaningful relationship between library user orientation and students' academic performance. Therefore, frequent use of the library and its resources is the foundation of academic excellence. This finding does not align with the study of Gbuushi & Ubwa (2018), who found that it greatly improved their ability to retrieve needed information; they can use the catalogue effectively to retrieve information, and it made them aware of the scope of the library, among others.

Research question three (3): Identify the types of information resources used by undergraduate students of School of Early Child Education, FUE, Zaria. The respondents were asked to indicate the type of information resources they use listed in Table.

Table 3: Types of Information Resources Used by Undergraduate Students of School of Child Education, Federal University of Education, Zaria

S/N	Information Resources Used	Frequency	Percentage
1	Textbooks	106	40.6
2	Journals	5	1.9
3	Newspapers/ Magazines	11	4.2
5	Audio-visuals	0	0
6	Projects	56	21.5
7	References materials	20	7.7
8	Electronic resources	61	23.4
9	Online databases	2	0.8
	Total	**261**	**100**

Researcher's Computation 2025

Table 3 reveals the types of information resources used by undergraduate students of School of Early Child Education, FUE, Zaria. From the analysis, it was evident that textbooks are highly used by undergraduate students with 106 (40.6%), closely followed by electronic resources with 61(23.4%) used by the undergraduate students, and 56(21.5%) of the students indicated that they used projects. This is in agreement with the findings of Arowolo, Ajiboye & Adio (2022) on a study conducted on the utilisation of library information resources by undergraduates of a public university in Ogun State. The finding shows that catalogue cards and internet search engines recorded the highest percentage of respondents. However, the finding does not correspond with the study of Oluwatobi, Ehiogbae, Aluko-Arowolo, and Onasote cited by Arowolo, Ajiboye & Adio (2022) who discovered that the most frequently used information resources are online databases and followed by Dictionaries, books, and encyclopedias, which are used daily, while the least used materials are CD-ROM databases. The undergraduate

students also use other information resources; nevertheless, textbooks are the most frequently used information resources. While online databases, journals, and newspapers/magazines are the least used information resources and audio-visual materials were not used by the undergraduate students. It is worth noting that other factors play a significant role in this, including the availability and accessibility of these information resources.

Research question three (4): Identify the challenges in the use of information resources faced by undergraduate students of School of Early Child Education, FUE, Zaria in Table 3 below. The respondents were asked to indicate the challenges listed in Table.

Table 4: Challenges faced by Undergraduate students of School of Child Education, Federal University of Education, Zaria on the Use of Information Resources

S/N	Challenges	Frequency	Percentage
1	Poor internet connectivity	66	25.3
2	Inadequate Power Supply	30	11.5
3	Inadequate information literacy skills	17	6.5
4	Lack of awareness	10	3.8
5	Poor Library policy	3	1.1
6	Inadequate information resources	35	13.4
7	Computer phobia	13	5
8	Poor reading environment	25	9.6
9	Poor ICT infrastructure	5	1.9
10	Lack of competent staff	57	21.8
	Total	**261**	**100**

Researcher's Computation 2025

The results in Table 4 show that poor internet connectivity with 66(25%) score was ranked as the biggest challenge faced, followed by lack of competent staff with 57(21.8%), and inadequate information resources with 35 (13.4%) score. Poor ICT infrastructure with 5(1.9%) score, and poor library policy with 3(1.1%) score were the least challenges according to respondents. This finding was in collaboration with the study of Okonoko, Atanda, and Brume-Ezewu (2018) who observed that undergraduate students face several challenges in using information resources, such as lack of internet and photocopying facilities (92%), inadequate materials (74%), poor ICT infrastructure and user education, unfavourable library conditions (68%), low awareness of resources (63%), and poor reading environments (52%). This finding does not agree with Arowolo, Ajiboye & Adio (2022), who discovered that slow internet services, power outage makes it uneasy to access electronic resources and skills in using the electronic format. This implies that the undergraduate students are faced with serious problems in using the information resources which could be attributed to poor information literacy skills and user education that need to be tackled by the school management.

Conclusion

Based on the findings, it can be concluded that the library orientation program would prepare undergraduate students for the effective use of information resources by teaching them the skills to search for and retrieve information in the library. This can be achieved by integrating

the courses into the university curriculum, as some universities in Nigeria already do. It would help increase library patronage, promote the optimal use of information resources, and encourage librarians to be more proactive.

Recommendations

Based on the major findings and conclusions, the following are recommended:

1. The school management should incorporate the library orientation program in the first-year school curriculum to ensure that all students gain early in their academic pursuit.
2. The University management should provide regular training for the undergraduate students on the optimum use of the library and its resources to improve their information literacy, enhance their ability to retrieve needed information from the library, enhance their capacity to carry out research, and inculcate their ability to think critically.
3. There is a need for the university management to organize awareness programs regularly to sensitize the undergraduate students on how to use the available information resources in the University, other than textbooks, electronic resources, and projects for their academic and research work effectively and efficiently, and increase their motivation to use the library.
4. The university management needs to provide adequate internet connectivity, adequate information resources in all fields of disciplines, and also employ competent staff who will guide the students on how to access to available resources at any time.

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ADOPTION OF ELECTRONIC HEALTH RECORDS SYSTEM FOR MEDICAL DECISION BY HEALTH WORKERS IN FEDERAL TEACHING HOSPITAL, LOKOJA, KOGI STATE, NIGERIA

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Abstract

This study investigated the adoption of electronic health records (HER) system for medical decisions among health workers in Federal teaching Hospital Lokoja, Kogi State. The objective of the study were to identify the factors that influence the decision of health workers to adopt and use EHR system and find out the reasons that influence the adoption of EHR system for medical decision. The study adopted quantitative research methodology, using survey research design to assess the utilizations of EHR system by health workers for medical decisions. The population of the study consisted of 664 health information managers, nurses, doctors, pharmacists, laboratory technicians, radiologists and ICT staff. A sample size of 247 health workers was selected using a stratified random sampling procedure. Structure questionnaire was used for data collection. Descriptive statistics were used to categorical variables while one-way ANOVA (F-test) were used for inferential analysis of 5% level of significance (i.e $P < 0.005$). The findings from this study show that potential benefits of EHR system, such as reducing wait times for patients, reduced cost of hospital operations, improved interdepartmental communication and collaboration was the most (69.1%) determinant factor in decision to adopt and use EHRs in the hospital. The finding shows that most respondents (78.3%) agree that the most essential reason for the adoption of HER is its efficiency, effectiveness and the satisfaction derived by using the EHR system. The study concluded that utilization of EHR in medical decisions was low among health workers in the Federal Teaching Hospital Lokoja. To overcome the setbacks facing utilization of EHR system, the study recommended that the potential benefits of EHR system, health workers and organizations should make it a priority to widely adopt EHR use in health care globally.

Keywords: Adoption, Electronic Health Record, Medical Decision, Health worker.

Introduction

Electronic health records enhance medical decision-making by providing healthcare professionals with immediate, comprehensive, and standardized patient data, enabling more accurate diagnosis, personalized treatment plans; and improved public health tracking. The implementation of electronic health records in medical practice has seen a significant increase in recent years. Electronic health records (EHRs) offer a valuable resource to improve health

surveillance and evaluation as well as informing clinical decision making (Healthcare Readers, 2025; Zayyan. & Toycon, 2025; Doman *et al*., 2019). Moreso, EHRs have been introduced in many different settings, including Low- and Middle-Income Countries (LMICs), yet little is known of the progress and effectiveness of similar information systems in Nigerian health sector. Changing healthcare goals requires flexible system. Electronic health records provide easy access to patient information, and although the value of EHR in clinical setting is not to be underestimated, the technological requirements for health information are ever changing (Cesulga, *et al.,* 2017).

Electronic health record system innovations are designed to streamline the process of health care delivery for the health care providers and consumers. This becomes a source of concern as accessing patients' records in studied facility comes with difficult. According to Fakiya (2023), EHR adoption generally refers to digital adoption, but in this case, it concerns health care organizations making an electronic health system part of their day-to-day workflow. It is defined as the process medical firms undergo as their staff learns to use EHR platforms to their full potential. Electronic health record can transform African healthcare delivery by improving access to care, health outcomes, and care quality (Fakiya, 2023). Despite these benefits, significant challenges remain, including lack of investment, infrastructure, and technological expertise. Nonetheless, there is growing interest and investment in EHRs in African and specifically Nigeria. These systems could play a significant role in the region's healthcare landscape in the coming years thereby simplifying medical decision making. (Fakiya, 2023).

Electronic records provide clinicians with immediate, comprehensive access to a patient's medical history, test results, and treatment plans, enabling more accurate, coordinated, and evidence-based decisions. The EHRs have been continually expressed as an evolvement of health record keeping. Because it is electronic, this method of record-keeping has been both supported and debated within the health professional community and the public realm (AHIMA, 2010). The EHR contains an the individual's health information, including physical mental, psychological, physiological and sexual information and hospital behaviour during all consultation's visits, admissions, and post-hospitalization periods. EHR supports the continuity of care.

Furthermore, EHR have been proven to improve quality of care and patient outcomes by keeping healthcare providers better informed, improving the workflow process, improving communication between clinicians, improving compliance with best practices and reducing medical errors (Akwaowo *et al*., 2023). In both public and private sectors, health care providers are being encouraged to migrate from paper-based health records to electronic storage of patient information and computer aided decision support systems. This is partially due to a growing recognition that a better IT infrastructure is essential to addressing certain health-related national concerns such as the need to improve the safety and quality of healthcare and rising healthcare costs (Akwaowo *et al*., 2023).

However, adoption of EHR among healthcare workers has been slow in developing countries like Nigeria. The successful implementation of innovative technologies depends on acceptance by medical staff such as doctors, nurses, health information management staff and other Health Care Providers (HCPs) in which they utilize EHR for medical decision in healthcare centre.

Statement of the Problem

By consolidating a patient's complete medical story into an instantly accessible, standardized format, electronic health records empower clinicians to make precise diagnoses, tailor treatments to the individual, and contribute to broader community health insights. The relevance of EHR in health care delivery globally is not new. The foundation for quality health data lies in data that is collected, managed, and used by medical professionals, and healthcare facilities and available for national databases and trend analysis. Digital health technologies, including Electronic Medical Records (EMRs) and Electronic Health Records (EHRs), enhance access to healthcare by facilitating quick and accurate retrieval of patient information, improving care coordination among healthcare providers, and reducing duplication of tests and procedures. Electronic records can also support telemedicine and remote healthcare services, enabling patients in remote or underserved areas to receive timely medical care and consultations from a distance, thus expanding access to healthcare services.

The dire lack of accessible, consolidated patient information in FHC, Lokoja, exacerbated by high patient loads and fragmented paper-based systems, fundamentally warrants the adoption of electronic records to form a reliable basis for medical decisions. The adoption and scale-up from paper-based systems to a digital system have not been without challenges which are but not limited to challenges related to high costs, fragmentation, poor network connectivity, power failure, lack of guidelines and policies, patient data security, lack of standardization, patient inaccessibility, lack of trust at the user level, limited infrastructure plus lack of integration and interoperability (Ayamolowo, *et al*., 2023). The formal adoption of EHR system in health care institutions in Nigerian and in recent years, the promotion of digital economy placed Nigeria as one of the few African countries to have adopted the technology in the public health sector (Olumatuyi, 2020). Most of the adoption and implementation of the EHR system only survived partially or fully at the pilot phase but have been repealed at the full implementation phase. However, with the continuous planning, execution, reporting of medical diseases of process for medical decisions in the Federal Teaching Hospital Lokoja, it remains unknown the factors, reasons, level of utilization of EHRs among others in the process. Due to this dearth of knowledge, the researchers investigated adoption and utilization of electronic health record system for medical decisions by health workers in Federal Teaching Hospital, Lokoja, Kogi State, Nigeria".

Objectives of the Study

The objectives of this study were to**;**

1. identify the factors that influence the decision of health workers to adopt and use EHR system in Federal Teaching Hospital Lokoja, Kogi State.

2. find out the reasons that influence the adoption of Electronic Health Records system for medical decision in Federal Teaching Hospital Lokoja, Kogi State.

Literature Review

Studies have been conducted which explored the adoption of electronic health record for improved healthcare delivery; for instance Akwaowo et al (2023) in their study to investigate the prospensity of health care professionals in health care facilities to adopt EHR and evaluate the contextual factors that impact or impede adoption, found that usefulness and anticipated success factors in facilitating operations within health care facilities have a great influence on adoption and use of EHRs. Usefulness will increase the adoption of EHRs. Shugalo (2022) assert that one of the most important criteria for evaluating the usefulness of a technology such as EHR is the rate of its usage. However, usage of EHR system by most health care providers in Nigeria has been very limited. Access to and use of EHR tools for health related decision making is the key to the attainment of health care quality outcomes.

Zayyan and Toycon (2018) observed that E-health technology applications are essential tools of modern information technology that improve quality of healthcare delivery in hospitals of both developed and developing countries. However, despite its positive benefits, studies indicate that the rate of the e-health adoption in some developing countries is either low or underutilized. This is due in part, to barriers such as resistance from healthcare professionals, poor infrastructure, and low technical expertise among others. The study investigated, identified and analyzed the underlying factors that affect healthcare professionals decision to adopt and use e-health technology applications in developing countries, with particular reference to hospitals in Nigeria. Cross sectional approach in the form of a close-ended questionnaire to collect quantitative data from a sample of 465 healthcare professionals randomly selected from 15 hospitals in Nigeria. Modified Technology Acceptance Model (TAM) was used as the dependent variable and external factors as independent variables. Collected data was analyzed using SPSS statistical analysis. The results obtained, which correspond with findings from other researches published, indicated that perceived usefulness, belief, willingness, as well as attitude of healthcare professionals have significant influence on their intention to adopt and use thee-health technology applications. Other strategic factors identified include low literacy level and experience in using the e-health technology applications, lack of motivation, poor organizational and management policies. The study concluded by stating how it contributes to the literature by pinpointing significant areas where findings can positively affect, or be found useful by, healthcare policy decision makers in Nigeria and other developing countries. This can help them understand their; areas of -health technology adoption and implementation.

In relation to the reasons for the adoption of electronic health records for healthcare delivery, Adeniyi *et al.* (2024) stated that Electronic Health Records (EHRs) have revolutionized healthcare delivery, offering numerous benefits for patient care and outcomes. This comprehensive review examined the impact of EHRs on patient care and outcomes, highlighting key findings from existing literature. EHRs have significantly improved patient care by enhancing accessibility and accuracy of patient information. With EHRs, healthcare providers

can easily access patient records, including medical history, medications, and lab results, leading to more informed decision-making and improved coordination of care. EHRs also facilitate communication among healthcare providers, enabling better care coordination and reducing medical errors. Moreover, EHRs had shown to improve patient outcomes by supporting evidence-based practices and clinical decision-making. EHRs can provide alerts and reminders for preventive care and screenings, helping healthcare providers adhere to best practices and guidelines. Additionally, EHRs enable real-time monitoring of patient data, allowing for early detection of potential health issues and timely interventions. Despite these benefits, challenges remain in the implementation and use of EHRs. Issues such as interoperability, data security, and provider burnout need to be addressed to fully realize the potential of EHRs in improving patient care and outcomes. In conclusion, EHRs is reported to have had a transformative impact on patient care and outcomes, improving accessibility, accuracy, and coordination of care. However, it concluded that ongoing efforts are needed to address challenges and ensure the effective use of EHRs in healthcare delivery.

In another study on the level of adoption of EHRs, Akwaowo, et al. (2022) affirmed that electronic medical records (EMR) are extensively used in developed countries to manage patient records and facilitate consultations and follow-up of treatment. This has resulted in centralised databases where different services and clinicians can quickly access patient data to support healthcare delivery. However, adoption and usage of EMR in developing countries is reported not to be common and, in most cases, non-existent. Clinicians are dependent on patients keeping their own records manually with no centralised database to manage and control the patient medical history. The key objective of the study investigated the propensity of clinicians and senior management personnel in healthcare facilities to adopt EMR and evaluate the contextual factors that impact or impede adoption. Using Davis's technology adoption model extended with other factors, this study determined if contextual or situational factors are associated with barriers that impede adoption of EMRs in developing countries. Using a cross-sectional quantitative research approach, a questionnaire was designed to collect data across four states in the Niger Delta region of Nigeria. Stratified random sampling was used to select healthcare facilities that participated in the survey and selection of respondents from each healthcare facility. Data was collected by trained research assistants, and a total of 1,177 valid responses were received and analysed using factor analysis and multiple regression analysis. The results showed that usefulness, critical success factors, awareness and relative advantage significantly influence clinicians' intention to adopt EMRs. Surprisingly, infrastructure availability was not statistically significant. Meanwhile, risk and data security both negatively influence adoption, indicating that user perception of risk and safety of their data decreases their propensity to adopt EMRs. The result from the study suggests that usefulness and anticipated success factors in facilitating operations within healthcare facilities have a great influence on user adoption of EMRs. Awareness, training and education of users on the effectiveness of EMRs and their usefulness will increase adoption. The results will be beneficial in helping government and healthcare leaders formulate policies that will guide and support adoption of EMR. Other policy recommendations and suggestions for future research were also proffered.

Based on the critical need for reliable and accessible patient information to form a coherent clinical narrative, this review establishes that the adoption of Electronic Health Records is not merely a technological upgrade but a fundamental prerequisite for advancing evidence-based medical decision-making in the study's context. Therefore, it is conclusively warranted as a foundational step toward improving diagnostic accuracy, optimizing treatment outcomes, and strengthening the overall healthcare system.

Methodology

Quantitative research methodology and descriptive survey research design were adopted for the study. The justification for using this methodology enhanced data collected. This study employed a survey design to assess the level of utilization of EHR system and associated factors for adoption among health workers in FTH Lokoja. The survey design is most appropriate for this study because it is the most elementary tool for all sorts of quantitative research techniques. The population of the study consisted of Health workers who are presently working in FTH Lokoja, where a functional EHR system is in place within the facility, and constitute the target population in the study. Those who were on annual or maternity leave were not included in this study. The target population comprises of six hundred and forty-four (644) staff in seven professions, such as Doctors, Nurses, and the Health Information Management (HIM) staff, pharmacists, Laboratory Technologists, Radiologists and ICT staff. Stratified sampling technique was used to select 247 as the sample size for this study. A self-developed closed-ended questionnaire was used as the instrument for data collection. The data obtained were analyzed using descriptive analyses such as frequencies, percentage, summaries table and means on categorical variables and inferential statistical analysis.

Response Rate

The researcher distributed 247 questionnaires issued to the participants in this study, 217 were completed and retrieved, representing 87.9% response rate. However, table 4.1 presents the response rate.

Table 1: Response Rate

S/No	Category of Respondents	No. of questionnaire distributed	No. of questionnaire retrieved	Percentage (%)
1	Health Information Management Staff	16	16	6.54
2	Nurses	125	109	44.1
3	Doctors	74	60	24.3
4	Pharmacists	12	12	4.9
5	Laboratory Technician	10	10	4.0
6	Radiologists	6	6	2.5
7	ICT Staff	4	4	1.6
Total		**247**	**217**	**87.9%**

The table 1, the responses rate of 247 (87.9%) was realized from health worker in Federal Teaching Hospital Lokoja Kogi State, Nigeria with regards to utilization of Electronic Health Records for medical decision by health worker in Federal Teaching Hospital Lokoja Kogi State. The response rate was achieved due to the fact that the researcher use an insider who know about the department to administered and collected the copies of the questionnaire back. This led to the achievement of the response rate realized.

Result and Discussion

This study presented the data collected and analyzed using descriptive statistics. The data analyzed in this section were collected using two (2) research objectives that were raised in this study. Frequency and percentages were used in the computation of the data collected and analyzed in this section.

Factors that influence the medical decision of health workers using Electronic Health Records

This objective sought to find out the factors that influence the medical decision of health workers adoption the Electronic Health Records system in Federal Teaching Hospital, Lokoja, Kogi State, Nigeria. In order to respond to this objective, some factors were listed for respondents to select the ones that are relevant. Table 1 presents the data collected and analyzed on factors that influence the medical decision of health workers using Electronic Health Records.

Table 1- Factors that influence the medical decision of health workers adoption Electronic Health Records in Federal Teaching Hospital Lokoja, Kogi State

S/N	Factors that influence the medical decision of health workers	Agree	Not sure	Disagree	Mean X̄
1.	Usefulness of the EHR system and anticipated success factors	110 (50.7)	45 (20.7)	62(28.6)	2.2
2.	Level of awareness, attitude and knowledge of how to utilize the EHR system	115(53.0)	42 (19.4)	69 (27.6)	2.3
3.	Training and education of users on the effectiveness of EHR system increase their adoption rates	120(55.3)	47(21.7)	50 (23.0)	2.3
4.	Availability of good infrastructure will positively influence user's adoption EHRs system	102 (47.0)	50(23.0)	65(30.0)	2.2
5.	Potential benefits of EHR system such as reducing wait times for patients, reduced cost of hospital operations, improved interdepartmental communication and collaboration among others can be a determinant factors in decision of health care workers to adopt and use EHR system in the hospital	150 (69.1)	17 (7.8)	50 (23.0)	2.5

6.	Technical factors such as selection of suitable EHR system, utility of EHRs software design, and IT resources had a stronger role in the system utilization	137(63.1)	70(32.3)	10(4.6)	2.6
7.	Organizational factors such as belief, commitment and expertise, policies and political support had a strong role in the EHR utilization	130(59.8)	37(17.1)	50(23.0)	2.4
8.	Human factors such usability: ease of use, usage frequency and users' satisfaction and experience with the system improve the likelihood of successful EHR system adoption	120(55.3)	27(12.4)	70(32.3)	2.2
9.	Managerial supports such as providing the needed resources allocation and commitment in the realization of EHR adoption is essential for health care workers influence to use the system	115 (53.0)	42 (19.4)	69 (27.6)	2.3

Source- Field Survey,2025

Table 1 presents factors that influence the decision of health care workers to adopt EHRs system in the hospital. 150 (69.1%) of the respondents agreed that potential benefits of EHR system such as reducing waiting times for patients, reduced cost of hospital operations improved interdepartmental communication and collaboration was the most influencing factor in their decision to use EHR system, 17 (7.8%) respondents are not sure, and 50 (23.0%) respondents disagree. The second most important factor as revealed in Table 1 by the participants 137 (63.1%) was technical factors such as the selection of suitable EHR system, utility of EHRs software design and IT resources. This suggests that technical factors play a stronger role in the system utilization. Table 1 shows that the third major influence was organizational factors. 130 (59.9%) respondents agree that belief, commitment and expertise politicies and political supports had a stronger role in the EHR utilization. The organizational factors was closely followed by training and education and human factors. Table 4.2 indicates that 120 (55.3%) respondents agrees training and education of users on the effectiveness of EHR system will increase their adoption rates. Similarly, 120 (55.3%) respondents believe that human factors such as usability: ease of use, usage frequency and user's satisfaction and experience with the system improve the likelihood of successful EHR system adoption, 27 (12.4%) respondents are not sure, and 70 (32.3%) of them disagree.

Furthermore, Table 1 revealed that the level of awareness, attitude and knowledge of how to adopt the EHR system as the fifth influencing factor as indicated by 115 (53.0%) respondents in their decisions to use EHR system in the hospital. Also, 115 (53.0%) respondents agrees managerial supports such as providing the needed resource allocation and commitment in the realization of EHR adoption is essential for health care workers' influence to use the system. 110 (50.7%) respondents agree that the usefulness of the EHR system and anticipated success factors are motivating factors that influence their decisions to use the system. 102 (47.0%) respondents

believe availability of good infrastructure will positively influence the user's adoption of EHR system.

According to the mean score rating in Table 1, items 6, 5, 7, 2, 3 and 9 were the most rated influencing factors in health care workers' decisions to use EHR system. However, items 1, 4, and 8 were rated lower, respectively.

Healthcare workers were primarily motivated to adopt the EHR system because they recognized its potential to create a more efficient and effective work environment by directly solving key operational challenges. The promise of streamlining patient flow, cutting costs, and breaking down communication barriers between departments offered tangible improvements that outweighed the perceived hurdles of implementation. This finding has crucial implications for the successful implementation and expansion of EHR systems. Firstly, it provides a clear and persuasive communication strategy for hospital leadership and system vendors, indicating that it can consistently highlight specific, practical benefits—efficiency, cost-saving, and collaboration - to generate buy-in and motivate widespread adoption among staff. Secondly, it reveals that a significant minority (23%) who disagree likely have unmet concerns or experience different pain points, implying that a one-size-fits-all rollout is insufficient and that addressing these specific reservations is essential for achieving universal acceptance.

Reasons for Electronic Health Records System adoption in medical decision-making by health care workers in Federal Teaching Hospital, Lokoja, Kogi State, Nigeria

This objective investigated the reasons for the adoption of the Health Records system for making medical decisions by health care workers in Federal Teaching Hospital, Lokoja, Kogi State, Nigeria. Response to this objective is provided in Table 2.

Table 2 -Reasons for Electronic Health Records System adoption in medical decision-making by health care workers in Federal Teaching Hospital Lokoja, Kogi State, Nigeria

S/N	Reasons that influence the decision of health workers to utilize	Agree (3)	Not sure (2)	Disagree (1)	Mean X̄
1.	EHRs provide substantial benefits to health care worker's and organizations in patient management	140 (64.5)	47(21.7)	30(13.8)	2.5
2.	EHR system is efficient and cost effective in improving the quality of care and health outcomes	150(69.1)	17(7.8)	52(23.0)	2.6
3.	EHR system improve: accessibility to health records, the quality and accuracy of patient information, engagement and management	137(63.1)	70(32.3)	10(4.6)	2.5
4.	EHR improve communication between health professional colleagues and patients	145(66.8)	42(19.4)	30(13.8)	2.6
5.	EHRs reduce medical errors and saves time in documenting health data	130(59.9)	37(17.1)	50(23.0)	2.2

6.	EHRs solve many limitations of paper-based systems	160(73.7)	37(17.1)	20(9.2)	2.6
7.	EHRs coordinate medical workflow	115(53.0)	42(18.4)	69(27.6)	2.3
8.	EHRs assist health care workers in scheduling appointment protocols	110(50.7)	45(20.7)	62(28.6)	2.2
9.	Overall the most essential reason for the adoption of EHR system for medical decisions is its efficiency, effectiveness and the satisfaction derived by health care workers	170(78.3)	30(13.8)	17(7.8)	2.7

Grad mean ($\ddot{X}$) = 2.5

Regarding the reasons for EHRs adoption in medical decisions, Table 2 shows that 140 (64.5%) respondents agree EHRs provide substantial benefits to health care workers, and organizations in patient management, 47 (21.7%) are not sure and 30 (13.8%) respondents disagree. Table 2 indicate that 150 (69.1%) respondents agrees EHR system is efficient and cost effective in improving quality of care and health outcomes, 17 (7.8%) of them are not sure and 50 (23%) disagree. Also, 137 (63.1%) of the participant agree that EHR system improve: accessibility to health records, the quality and accuracy of patient information, engagement and management, 70 (32.3%) respondents are not sure, while 10 (4.6%) of them disagree. These reasons above suggests that the benefits of EHRs, efficiency, cost effectiveness and accessibility play a vital role for EHRs adoption in medical decisions.

Further, table 2 revealed that 145 (66.8%) of respondents agree EHR improve communication between health professional colleagues and patients, 42 (19.4%) respondents are not sure and 30 (13.8%) of them disagree. 130 (59.9%) respondents believe that EHRs reduce medical errors and save time in documenting health data, 37 (17.1%) of them are not sure and 50 (23.0%) disagree. These suggests that improving communication, error reduction and time savings are essential reasons for EHRs adoption in medical decisions.

Table 2 revealed that 160 (73.7%) respondents agree that EHRs solve many limitations of paper-based system, 37 (17.1%) of them are not sure and 20 (9.2%) respondent disagree. 115 (53.0%) respondents pointed out that EHRs systems coordinate medical workflow, 42 (19.4%) respondents are not sure, while 69 (27.6%) of them disagree. This implies that the advantages of EHR systems over paper-based systems were the major reasons for EHRs adoption.

From table 2, 110 (50.7%) of the respondents agreed that EHRs assist them in scheduling appointment protocols, 42 (19.4%) of them are not sure and 69 (27.6%) respondents disagree. This points to the fact that EHR systems play a significant role in enhancing patent appointment scheduling in the studied hospital.

Overall, 170 (78.3%) respondents indicates that the most essential indicates that the most essential reason for the adoption of EHR system for medical decisions is its efficiency, effectiveness and the satisfaction derived by health care workers in using the system. According

to the mean score rating of the items: items 9, 3, 6, 1, 2, 4 were the most critical reasons given by the respondents for EHR adoption in medical decisions in Federal Teaching Hospital Lokoja. However, items 5, 7 and 8 are rated lower, which implies error reduction, time savings and scheduling appointment protocols were not the major reasons for EHR adoption.

EHRs enhance patient management by centralizing all patient data - from medical history and lab results to current medications - into a single, instantly accessible record. This eliminates time wasted searching for paper files, reduces errors from illegible handwriting, and provides clinical decision support such as drug interaction alerts. The result is more efficient workflows, more informed clinical decisions at the point of care, and the ability to coordinate seamlessly with colleagues, leading to higher-quality and safer patient management. For the healthcare facility itself, EHRs transform patient management from an administrative task into a strategic asset. They streamline operational efficiency by automating tasks like billing and coding, which reduces costs and improves revenue cycles. The data aggregated by EHRs allows organizations to analyze population health trends, monitor performance metrics, and ensure compliance with reporting standards. This data-driven approach enables better resource allocation, improves public health tracking, and enhances the overall quality and safety of the care provided across the entire institution. This implies that investing in and optimizing EHR systems is a strategic imperative for enhancing both the quality of patient care and the operational health of a healthcare organization.

Conclusion

The utilization of electronic health records for decision-making in Federal Teaching Hospital (FTA) Lokoja, Kogi State, Nigeria was carried out. Furthermore, the utilization of electronic health records is the basis for medical decisions in the hospital because it can bring good perspective to the policy makers and the managers regarding utilization of electronic health records system and the obstacles of using it from the health workers, perspective so that they can solve their problems and can successfully impairment electronic health records system in their operations.

Recommendations

Based on the findings of this study, the following recommendations are provided:

1. In view of the potential benefits of EHR system, healthcare workers in FHC, Lokoja should make it a priority to widely adopt EHR use in health care globally.
2. Since inadequate computer knowledge and lack of training have been identified as factors that affect smooth adoption and usage of EHR system, the Hospital Management should prioritize computer literacy and training of staff should be encouraged as this form the major contributing factor to the use of EHR. Computer skills are a key factor in assessing system utilization.

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IMPACT OF PUBLIC LIBRARY SERVICES ON COMMUNITY DEVELOPMENT IN POTISKUM LOCAL GOVERNMENT, YOBE, STATE, NIGERIA

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Abstract

This study investigate the impact of public library services on community development in Potiskum Local Government, Yobe State, in North East Nigeria. The objectives of the study were to: identify the types of services provided by the Potiskum public library and their Relevance to community needs, to assess the contribution of these services to community development in the community. identify challenges hindering the library's effectiveness and recommend strategies for improving its role in community development. A descriptive survey research design was used for the study. The entire population of the study consisted of 222 users of the public library in Potiskum Local Government of Yobe State. The questionnaire was titled "The Impact of Public Library Services on Community Development in Potiskum" (PULIPLOGO). The responses were used to answer the research questions. The instrument was structured on a 4-point scale. The instruments were face-validated by three experts: two from the Department of Library and Information Science and one from the Measurement and Evaluation Unit, Department of Science Education, Federal University, Gashua. The paper revealed moderate efficiency in operations such as circulation, reference services, and user assistance, the library plays a valuable role in meeting the information, educational, and literacy needs of the community. Services such as research support, access to past examination papers, and ICT training have contributed positively to users' development. The study revealed that the Potiskum Public Library supports education and literacy in the community but faces challenges such as inadequate up-to-date resources and limited ICT facilities. It concludes that while the library is vital, its services are not fully meeting user needs. Therefore, it was recommended that the library improve its collections, adopt ICT tools, and secure better funding.

Introduction

Public libraries play a central role in democratic societies as gateways to knowledge, lifelong learning, and community development. They provide equitable access to information, educational resources, and digital technologies that empower individuals to acquire new skills, expand their knowledge, and make informed decisions. As community-based institutions, public libraries contribute to literacy promotion, cultural preservation, social inclusion, and the overall intellectual growth of citizens (Onuoha, 2021). Their services are particularly important in developing contexts where educational opportunities and access to information may be limited.

In Nigeria, public libraries are mandated to serve diverse populations regardless of age, gender, or socio-economic background. They support formal and informal education, facilitate personal development, and provide information that enhances the socio-economic well-being of individuals and communities (Okoro, 2020). Through reading resources, digital access, outreach programs, and advisory services, public libraries have the potential to act as engines of community transformation, especially in underserved local government areas.

The Potiskum Public Library in Yobe State is one such institution with the responsibility of meeting the information and educational needs of its community. It provides a range of services including reading materials, ICT access, reference services, and guidance for learners. However, like many public libraries across Nigeria, its effectiveness is often undermined by persistent challenges such as insufficient funding, outdated or inadequate collections, poor infrastructure, and limited ICT facilities (Abubakar, 2020). These constraints hinder its ability to function as a dynamic center for learning and community development.

Effective library service delivery requires well-organized resources, responsive staff, updated information materials, and functional technological infrastructure. When these elements are lacking, users encounter difficulties in accessing information that supports literacy, research, and personal advancement (Ibrahim, 2021). The broader impact of library services on community development cannot be overstated. Public libraries contribute to digital literacy, support school and adult education initiatives, foster youth empowerment, and provide access to information needed for economic and social decision-making (Musa, 2022). Thus, a well-resourced and efficiently managed public library can significantly enhance the growth and development of the community it serves.

Despite the recognized importance of public libraries, several studies in Nigeria indicate that many are unable to deliver optimal services due to resource shortages, inadequate staffing, and low technological integration (Yakubu, 2021). These challenges highlight the need for continuous assessment to determine the extent to which public libraries are fulfilling their mandate. Such evaluations help identify gaps and guide strategic improvements that can strengthen library relevance in an increasingly digital society.

This study therefore examines the impact of public library services on community development in Potiskum Local Government, Yobe State.

Statement of the Problem

Public libraries serve as vital community institutions where citizens gain access to information, lifelong learning opportunities, and essential literacy resources. They provide safe and inclusive spaces for reading, research, creativity, and digital learning, thereby supporting both personal development and community empowerment. Through their collections, ICT services, and outreach programs, public libraries help bridge information gaps and promote informed citizenship. They also contribute significantly to socio-economic growth by providing equitable access to knowledge and skills development for all categories of users.

However, the public library in Potiskum Local Government Area falls short of fulfilling these critical functions. The library is constrained by chronic underfunding, outdated and insufficient learning materials, and weak ICT facilities that limit access to digital information. Community-focused programs are inadequate, and awareness of the library's services among residents remains notably low. As a result, the library's contribution to literacy improvement, employment support, youth empowerment, and general community development is minimal. These challenges raise concerns about the library's effectiveness in meeting contemporary community needs.

Therefore, this study seeks to investigate the current state of public library services in Potiskum, identify the specific gaps affecting performance, and examine how these shortcomings hinder community development. The study will also propose practical strategies for improving resources, strengthening ICT services, enhancing outreach, and making the library more responsive to the socio-economic needs of the community.

Objectives of the Study

The Objectives of the Study is to identify Impact of Public Library Services on Community Development in Potiskum Local Government":

1. To identify the types of services provided by the Potiskum public library and their Relevance to community needs.
2. To assess the contribution of these services to literacy Development in Potiskum Local Government.
3. To identify challenges hindering the library's effectiveness and recommend strategies For Improving its role in community development.

Literature Review

Public libraries are mandated to provide reference and information services that connect users to reliable sources for academic, personal, and professional needs. These services include answering information queries, guiding users on resource use, and offering bibliographic assistance. In their study, Madu (2020) emphasized that effective reference services are fundamental to the relevance of public libraries in Nigeria, as they directly address the information demands of the community. Mobile and outreach library services extend access to populations unable to visit the physical library. Such services may include bookmobiles, deposit collections, and outreach programs to schools, hospitals, and rural areas. Ezeani (2021) noted that mobile services are particularly critical in rural Nigerian communities, where physical distance and lack of infrastructure limit residents' access to information.

The integration of Information and Communication Technology (ICT) in public library services has transformed information access. These services include internet browsing, online catalogs, CD-ROM databases, and e-mail reference. According to Ariole (2022), ICT services not only enhance information delivery speed but also expand the range of resources available to users, thereby increasing the library's impact on community development. Extension services such as book exhibitions, reading promotions, and topical displays are valuable tools for

attracting users and promoting available materials. Ojo (2020) highlighted that such activities create awareness of library resources and foster a reading culture within the community, especially among young people and non-regular library users.

Public libraries also have a responsibility to serve users with disabilities through assistive technologies, accessible formats, and tailored programs. Idhalama (2019) observed that while Nigerian public libraries often have limited resources for such services, targeted provision can greatly improve inclusion and ensure that all community members benefit from library resources. Beyond education, public libraries contribute to cultural preservation and community identity through heritage documentation, language promotion, and cultural programs. Akintunde (2021) argued that cultural programming in libraries strengthens community bonds and fosters pride in local traditions while keeping historical records accessible for future generations.

Public libraries are essential in promoting literacy by providing access to books, reading programs, and literacy campaigns for all age groups. According to Akinola (2021), the availability of free reading materials and literacy-focused events in public libraries significantly improves reading skills and fosters a culture of continuous learning in local communities. Beyond literacy, public libraries support formal education by supplementing classroom learning with reference materials, textbooks, and e-resources. Udo (2020) found that Nigerian public libraries play a complementary role in education by offering students a conducive learning environment and materials that may be unavailable in their schools.

Public libraries also contribute to community development by facilitating lifelong learning through workshops, skills training, and self-directed study resources. Nwankwo (2022) noted that lifelong learning programs organized by public libraries empower individuals to improve their professional skills, engage in entrepreneurial ventures, and adapt to changes in the job market. Access to employment information, business resources, and vocational training through libraries can directly influence socio-economic development. Okafor (2021) emphasized that public libraries in Nigeria have helped job seekers prepare CVs, learn computer skills, and connect with career opportunities, thus contributing to poverty reduction.

Public libraries provide ICT services that bridge the gap between information-rich and information-poor communities. Musa (2020) highlighted that internet access in public libraries enables individuals to participate in online education, apply for jobs, and access government services, thus promoting social inclusion and economic participation. By hosting cultural events, heritage exhibitions, and public discussions, libraries strengthen social ties and promote shared identity. Ibrahim (2021) argued that such activities in public libraries foster unity, reduce social isolation, and create an informed citizenry capable of contributing meaningfully to community development.

One of the major challenges facing public libraries in Nigeria is chronic underfunding, which limits their ability to acquire updated materials, improve infrastructure, and expand services. Emezie (2021) found that budgetary allocations to public libraries are often insufficient

and irregular, leading to resource shortages and reduced service quality. The relevance of a public library depends heavily on the currency and adequacy of its collections. According to Yusuf (2020), many Nigerian public libraries operate with outdated books, inadequate reference materials, and minimal access to e-resources, which reduces their ability to meet users' diverse information needs.

ICT facilities are essential for modern library service delivery, but many public libraries lack reliable internet access, functional computers, or relevant software. Okoro (2022) emphasized that poor ICT infrastructure hinders libraries from offering essential digital services such as e-journals, online catalogues, and virtual reference. The availability of trained library staff determines the efficiency of service delivery. Olayemi (2020) observed that some Nigerian public libraries are staffed by non-professionals or have insufficient professional librarians, leading to gaps in specialized services like information literacy training and reference assistance. Even when services are available, low awareness among community members can limit their utilization. Chukwuma (2021) reported that many potential users are unaware of the range of services offered by public libraries, and some perceive the library only as a place for borrowing books rather than a multifaceted community resource. Poor maintenance of library facilities contributes to declining user satisfaction and safety concerns. Ibrahim (2022) highlighted that leaking roofs, inadequate ventilation, and poor seating arrangements discourage library visits and diminish the institution's role as a community hub.

Methodology

The study adopted descriptive design. The design according to Musa (2020), aims at studying a group of people or items by collecting data from a sample of the same group or items considered appropriate to be a represented of the entire population. This design was appropriate for the study because it sought information from respondents on the Impact of public library services on community development in potiskum local government, Yobe, State, area of North-East Nigeria:: The population of the study was 222 users in the public library There is no sampling because the population was manageable. The researcher develop one instrument for the study. The instrument was "title" To find Impact of public library services on community development in potiskum local (PULIPLOGO). Which contains 18 items statements. The responses of the users were used to answer the research questions. The instrument was structured on 4-point scale. The research instrument was validated by two experts in department of library science and one from measurement and evaluation all from faculty of education federal university Gashua Yobe State Nigeria. The researcher visited the libraries and administered the instrument personally to the Users. The data collected were analyzed using statistical package for social science to calculate mean and standard deviation. Item statement with mean rating of 2.50 and above is accepted. While ant item with a mean rating less than 2.50 was Rejected.

Results and Discussion:

Table 1: Types of services provided and their relevance to community Potiskum Local Government.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Key services currently offered by the Potiskum Public Library	57	60	56	49	222	2.56	.10	Accepted
2	Print and electronic resources are relevant to information needs	60	57	49	56	222	2.54	.14	Accepted
3	Internet, computers, e-resources are regularly available and useful.	54	60	49	59	222	2.49	.13	Accepted
4	Library outreach, reading clubs, mobile visits, and community talks	68	56	48	50	222	2.64	.14	Accepted
5	Library provides inclusive services that consider students, workers, traders, farmers	64	57	54	47	222	2.62	.04	Accepted
6	Cultural/heritage activities, exhibitions, local history, language programs	63	60	52	47	222	2.63	.10	Accepted
	Grand Mean						**2.56**	**0.04**	

Key: AS, Strongly Agree: A, Agree: Dis Agree: Strongly Disagree:

The responses in Table 1 show that the various services offered by the Potiskum Public Library are generally considered relevant by users, although the level of agreement differs slightly across items. For instance, the mean score of 2.56 for the availability of key services indicates that users acknowledge that essential library services exist, but they may not be provided consistently or in sufficient depth. Likewise, the relevance of print and electronic resources received a mean of 2.54, suggesting that while these materials are helpful, they may not fully meet the information needs of all categories of users.

ICT-related services scored slightly lower, with a mean of 2.49, implying that computers, internet access, and electronic resources are available but may not always be reliable or adequate. In contrast, outreach activities, reading clubs, and community talks received a relatively higher mean of 2.64, indicating that users appreciate the library's effort to engage the community beyond the physical building. The library's attempt to provide inclusive services for different groups—including students, traders, workers, and farmers—was also acknowledged with a mean of 2.62, showing that users perceive the library as trying to cater to diverse needs. Cultural and

heritage activities scored 2.63, reflecting the community's recognition of the library's role in promoting local history and culture.

These item-level results suggest that the library has a visible presence in the community and offers several meaningful services. However, the slightly lower means tied to digital services and resource adequacy show that users still expect improvements in modern, technology-driven services and updated materials. The results indicate that improvements in the quantity, quality, and accessibility of materials are needed, in line with the observations of Olaniran (2021) who emphasized that library effectiveness depends on resource adequacy.

Table 2: Contribution of Library Services to Literacy Development in Potiskum Local Government.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Library has improved my reading and writing skills.	61	67	55	39	222	2.68	.06	Accepted
2	Library resources have helped me perform better in school or training activities?	61	57	57	47	222	2.59	.10	Accepted
3	Library programs have strengthened my job readiness	70	61	49	42	222	2.72	.10	Accepted
4	Access to the library's internet and e-resources has reduced my digital access barriers.	69	62	49	42	222	2.71	.10	Accepted
5	Library activities have increase my participation in community development	69	52	59	42	222	2.67	.10	Accepted
6	Information obtained from the library has supported my literacy advancement	59	52	59	52	222	2.53	.12	Accepted
	Grand Mean						**2.53**	**0.04**	

Key: AS, Strongly Agree: A, Agree: Dis Agree: Strongly Disagree:

Table 2 reveal that users generally perceive the library as contributing positively to various aspects of literacy development. The mean of 2.68 for improved reading and writing skills indicates that the library is viewed as a helpful environment for building foundational

literacy abilities. The item on enhanced academic or training performance received a mean of 2.59, suggesting that library resources assist learners, though perhaps not to the fullest potential. Library programs aimed at strengthening job readiness were rated with a higher mean of 2.72, showing that users find workshops, training activities, or access to career-related information beneficial. Similarly, access to internet services and electronic resources scored 2.71, which suggests that users feel the library helps reduce digital barriers, even though ICT availability was earlier noted as moderate. Participation in community development activities scored 2.67, indicating that library programs encourage individuals to take part in community life. Meanwhile, the mean score of 2.53 on literacy advancement through information resources implies that although the library contributes to personal literacy growth, users may still need expanded or more targeted literacy support.

Taken together, these findings indicate that library services have a meaningful impact on different dimensions of literacy. However, the means show that the level of impact varies, with some areas—such as job readiness and digital access—receiving stronger support than others.The findings align with the study by Ahmed (2020), which highlighted that service quality in public libraries significantly affects user satisfaction and engagement.

Table 3: Challenges Hindering Effectiveness And Strategies For Improvement in Potiskum Local Government.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Insufficient funding limits the library's ability to provide up-to-date services.	73	69	40	40	222	2.79	.09	Accepted
2	Library's collections are current and adequately meet users' needs.	77	69	39	37	222	2.84	.08	Accepted
3	Frequent power/internet interruptions reduce the quality of library service.	78	69	38	37	222	2.85	.08	Accepted
4	No enough trained staff to deliver reference, ICT, and user-education services.	76	71	38	37	222	2.84	.07	Accepted
5	Many community members are unaware of the full range of library services?	77	70	37	38	222	2.84	.08	Accepted
6	No space, seating, ventilation and conducive for learning.	74	68	40	40	222	2.79	.09	Accepted
	Grand Mean						**2.64**	**0.03**	

Key: AS, Strongly Agree: A, Agree: Dis Agree: Strongly Disagree:

The specific item means in Table 3 provide clear insight into the challenges affecting the Potiskum Public Library. The mean score of 2.79 for insufficient funding reflects strong user agreement that financial limitations hinder the library's ability to provide up-to-date services. Similarly, the item stating that library collections are current and adequate received a high mean of 2.84, showing that users overwhelmingly see the collections as outdated and insufficient, despite the item being framed positively.

Power and internet interruptions also pose major problems, as reflected in a mean score of 2.85, the highest among the items—indicating that disruptions in electricity and internet severely reduce the quality of service delivery. The issue of inadequate trained staff scored 2.84, demonstrating that users believe the library lacks personnel who are equipped to provide reference services, ICT support, and user education. The perception that many community members are unaware of library services also earned a mean of 2.84, suggesting that outreach and publicity efforts are not strong enough. Finally, the item concerning inadequate space, seating, and ventilation scored 2.79, showing that the physical environment fails to provide a comfortable and conducive learning atmosphere.

These item-level results paint a consistent picture of serious operational challenges affecting the effectiveness of the library. Each of the problem areas identified is strongly affirmed by respondents, suggesting that without targeted interventions—such as improved funding, better staffing, infrastructure upgrades, and stronger publicity—the library will struggle to expand or sustain its impact on community development. The result is consistent with Musa (2022), who noted that effective library services enhance educational growth and information accessibility within communities.

Conclusion

This study assessed the adequacy of resources, efficiency of service delivery, and the impact of library services on meeting the information needs of users in the Potiskum Public Library, Yobe State. The findings revealed that while the library plays an important role in providing information and promoting literacy, its resources and facilities are only moderately adequate, with a grand mean of 2.56. Service delivery was found to be functional but not fully efficient, with a grand mean of 2.53, indicating the need for improved promptness and personalization in services. The impact on community information needs was rated higher, with a grand mean of 2.64, showing that despite limitations, the library significantly contributes to education, research, and community development. Overall, the results suggest that the Potiskum Public Library has a strong foundation for supporting its users, but strategic improvements in resources, facilities, and service quality are necessary to maximize its potential.

Recommendations

Based on the findings of this study, several practical steps are recommended to strengthen the effectiveness of the public library in Potiskum Local Government.

1. The local government should increase funding allocations to the library to enable the acquisition of current books, learning tools, and essential operational resources. Improved funding will also make it possible to upgrade library infrastructure, ensuring a more conducive and functional environment for users.
2. The library management should prioritize the development of ICT facilities, including reliable internet connectivity, computers, and digital literacy tools. Enhancing ICT services will not only support students and job seekers but also position the library as a modern learning hub that meets current information needs. In addition, staff should be trained continuously to competently manage digital resources and guide users.
3. There is a need to redesignng and expansion of community-focused programs. The library should introduce activities such as literacy clubs, skills workshops, reading competitions, health information sessions, and youth engagement programs. These activities will attract different age groups and stimulate increased use of library services. Moreover, establishing partnerships with schools, NGOs, and community-based organizations will help enrich these programs and promote shared responsibility for community development.

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FACTORS FACILITATING ADOPTION OF INSTANT MESSAGING FOR SERVICE DELIVERY TO LIBRARY CUSTOMERS IN FEDERAL UNIVERSITY LIBRARIES IN NORTH EAST STATES NIGERIA.

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Abstract

This study investigated Factors Facilitating Adoption of Instant Messages for Service Delivery to Library Customers in Federal University Libraries in North East States Nigeria. The study was guided by two objectives: to identify the factors facilitating the adoption of Instant Messaging Service for information provisio and to determine library Customers satisfaction with the adoption of Instant Messaging for Information Service provision by the Customer Service Divisions of the Federal University Libraries in the North East State Nigeria. Quantitative method was adopted for the study, descriptive survey research design was udesd the population of the study was made up of both staff and the registered students in the customer service division of the Federal University Libraries Studied. Seventy-five (75) staff and three hundred seventy-eight (378) registered students were selected as the sample size of the study. survey research design was employed for the study and questionnaire was used as instrument for data collection. Cluster sampling technique was used. Recommendation, in order to maintain the level of adoption of Instant Messaging Services the Staff of the Customer Service Divisions of the Federal University Libraries studied should make the best used of the facilities adopted; such as Intranet, Wireless, Local Area Network, Computers, Routers, Servers at any time. The Customer were highly satisfied with the adoption of Instant Messaging Service such as short messaging service, cross platform messaging service, Internet relay chat, and email messaging service for information provision. The staff of the Customers Service Divisions should give more emphasis on reaching out the customers' needs. Conclusion, the adoption of Instant Messaging Service by the Customer Service Divisions of the Federal University Libraries studied had significant influenced on both the staff and students. It has improved the quality of Information Services provided rendered to the Customers.

Key words: Factor, Instant Messaging Services, Service Delivery, Library Customer, Federal University Libraries

Introduction

Libraries must continuously improve themselves with up-to-date computer technologies for knowledge transmission and networking, and this need for technological advancement is a key factor facilitating the adoption of instant messaging (IM) services for information provision in the customer service division. For the sustenance of efficient service delivery, library

professionals must possess adequate knowledge and skills in ICT techniques and handling procedures (wakil, Zakri & Daudu,2022). Thus, changes in Library and Information Services (LIS) are essential to keep pace with new technologies and modern computer-networking experiences. The adoption of instant messaging in academic libraries is strongly influenced by its capability to support effective, efficient communication and the immediate receipt of acknowledgments or replies (Tarofder, e'tal…2023) IM provides a convenient contact point for library patrons seeking information and reference help commonly referred to as chat reference and also offers a unique method of communication among library staff. Librarians are able to provide information rapidly to users, synchronously or asynchronously, in an informal and user-friendly way. This fosters relationship-building and improves interactions between library staff and users. Because IM by its nature encourages brevity and clarity, it helps users articulate their needs more directly. Additionally, IM increases librarians' productivity by eliminating time wasted through slower communication methods, such as email delays or voicemail, or by having to physically move around the workspace.

The employment and adoption of IM services in library and information provision is further facilitated by the need for fast responses to customer queries. A recent study that explored mobile instant messaging for reference queries found that students preferred WhatsApp, Instagram, Telegram, and Facebook Messenger over in-person reference in a post-COVID context (Holtgraves, 2022). Through IM, users feel more comfortable asking sensitive questions without embarrassment and can receive immediate support, which encourages wider usage. This integration simplifies communication, supports meeting coordination, and strengthens collaboration. Instant messaging enables interlocutors to convey short typed texts efficiently, improving communication globally for end users.

Statement of the problem

Ultimately, these advantages underscore the key factors facilitating the adoption of IM services for information provision within the customer service division. Instant Messaging (IM) has emerged as a vital communication tool capable of bridging the gap between libraries and their patrons by enabling real-time, interactive information provision. As noted by Wakil, Zakari and Daudu (,2022). Instant Messaging Service adoption for information service provision in academic libraries especially at the Customer Service Divisions. Instant Messaging Service rendered a great satisfaction and effective communication in respect to information service delivery to the library customers. Despite these recognized advantages, existing literature provides limited insight into the extent to which university libraries in Nigeria particularly those in the North East have adopted IM as a customer service and information-provision tool. Preliminary observations reveal that although IM platforms offer opportunities for timely communication, reminders, and user engagement, their adoption within many university library customer service divisions remains minimal. This weak integration contributes to persistent service challenges, especially during processes such as undergraduate and postgraduate clearance, staff exit procedures, and the return of borrowed library materials. The absence of effective IM-based communication often results in overdue or lost resources, user frustration,

delays in graduation or administrative processing, and avoidable conflicts between library staff and patrons.

Furthermore, earlier studies Idi (2015) indicate that while basic ICT tools (e.g., computers, internet connectivity, photocopiers, and printers) are available in selected university libraries in the North East, the specific use of IM services within customer service divisions is still under-utilized. What remains unclear are the factors that facilitate or hinder the adoption of IM for effective information provision and customer service delivery in these libraries.
It is therefore necessary to investigate the level of IM adoption and the factors influencing its effective use in the customer service divisions of federal university libraries in North East Nigeria. Understanding these factors will help determine how IM can be better leveraged to enhance communication, improve service delivery, and support efficient library operations of libraries.

Objectives of the Study:

1. To identify the factors facilitating the adoption of Instant Messaging Service for information provision in the Customer Service Divisions of the Federal University Libraries in the North Eastern State Nigeria.
2. To determine library Customers satisfaction with the adoption of Instant Messaging for Information Service provision by the Customer Service Divisions of the Federal University Libraries in the North East State Nigeria.

Literature Review

Effective communication is central to information provision in libraries, as it enables the exchange of messages between individuals or devices through a shared medium. Instant Messaging (IM) has emerged as one of the key communication technologies that support real-time interaction between libraries and their users. IM platforms ncluding email, Internet Relay Chat (IRC), social networking applications, and Voice over Internet Protocol (VoIP) tools enable quick, synchronous communication that enhances users' access to information and improves service delivery. Thus, Social media allows librarians to provide Help Desk and Ask-a-librarian services using specific instant messaging tools like Facebook and Twitter (Tekale & Dalve-Pati, 2019).

Customer satisfaction is a major factor influencing the adoption of IM services. Particularly, social media is being deployed in the library environment to market products and services, keep users abreast of new developments, engage them on a real-time basis, and obtain Feedback Promise (Izuagbe 2 & Mercy,2020) describe satisfaction as the positive feeling users experience after receiving a service that meets their expectations, noting that satisfied users are more likely to remain loyal and continue engaging with information service providers. In the library context, IM contributes to user satisfaction by providing fast responses, personalized assistance, and convenient access to support services, thereby meeting users' information needs effectively.

The availability and accessibility of ICT infrastructure also play a crucial role in facilitating IM adoption through digital platforms via mobile applications. Izuagbe, Ifijeh & Ilo (2021) identify digital platforms for library services as Telegram, WhatsApp, YouTube, Zoom, Messenger, and Google classroom. In line with this, Nasir (2020) reported that academic libraries in Malaysia render digital services through chat services (library WhatsApp group). platforms such as WhatsApp, Telegram, Viber, Windows Live Messenger, and Yahoo Messenger as widely used IM services that have become more accessible through cloud-based systems and mobile applications. Similarly, social network allows individual to join and create a personal profile, then formally connect with other users of the systems as social friend. It can be expressed as social connecting sites among the social user in web 2.0 domain. The potential of social networks to be relevant to information seeking and sharing from the more specialist web 2.0 sites. (John, Henry &Funmilayo,2020) highlight how Web 2.0 technologies such as social networking platforms and interactive communication tools have transformed collaboration and communication processes within organizations, including libraries. These technologies have made it easier for libraries to adopt IM services by offering user-friendly, low-cost, and highly accessible tools for communication.

Advancements in ICT have further strengthened the case for IM adoption in libraries. Mobile phones have become integral to our daily lives, revolutionizing how we access and share information. Libraries at the forefront of information dissemination have embraced this technology to enhance their services and reach a wider audience. Mobile phone-based library services offer users the flexibility to access library resources anytime, anywhere, from the comfort of their devices. (Prakash 2022). The proliferation of smartphones, tablets, and online networks has enhanced communication capabilities across institutions. These mobile communication systems support is flexible, anytime-anywhere access, making IM an ideal tool for reaching library users, especially in customer service divisions where prompt assistance is required. Mobile applications are useful to develop an innovative future-forward way that supports library services. He suggested iOS and Android mobile applications in libraries for creativity and innovation for mobile (Services Kesselman, 2022). Library professionals increasingly rely on ICT tools for their daily tasks, research, and information handling activities, which IM helps to streamline.

From the broader ICT perspective, it encompasses a wide range of technologies including internet services, information systems, and network-based communication tools that facilitate the transmission and retrieval of information. This information retrieval device or tools serve as a platform between the user and the needed library material. 'Information retrieval tools in online academic databases are a subset of online information retrieval systems that focus specifically on scholarly content (Abba,2020). Within this context, IM offers significant advantages for library customer service operations by minimizing distance barriers, accelerating information delivery, and offering an alternative to traditional face-to-face or telephone-based communication.

The growing integration of IM technologies into daily life further supports their adoption in libraries. Various app development tools and mobile technologies are currently used to

develop mobile apps for different operating systems such as Android and Windows. For Android app development, mostly JavaScript was used, while Apple apps are typically developed using the X-code and deployed to iPhone, iPod Touch, or iPad (Singh&Madhusudhan,2023). IM tools have become ubiquitous across personal, academic, and professional environments. Their influence is evident in students' learning habits and information-seeking behaviors, which increasingly rely on digital communication channels. As academic communication becomes more collaborative and socially oriented, IM services provide an effective platform for real-time knowledge sharing and support.

Overall, the literature shows that factors such as communication efficiency, user satisfaction, ICT accessibility, technological advancements, and shifts in user behavior strongly facilitate the adoption of IM services in library customer service divisions. These factors not only enhance information provision but also improve the responsiveness, reach, and overall effectiveness of library service delivery.

Methodology

Quantitative research and descriptive research design was adopted for this study. The population of this study consist of seventy-five (75) staff of the Customer Service Divisions and twenty thousand four hundred and ninety-seven (20497) registered students of the Customer Service Divisions of the Federal University Libraries in the North Eastern States Nigeria making a total of 20,572. Seventy-five (75) copies of questionnaire were administered to the staff members of the Customer Service Divisions of the Federal University, Libraries in the North East Nigeria. Sixty-six (66) copies representing 88% of the questionnaire completed and returned where found valid and useful for the study. For the registered students in the Customer Service Divisions of the Federal University Libraries studied, three hundred and seventy-eight (378) copies of the questionnaire were administered out of which three hundred and forty (340) representing 91.1% were returned and found useful for the study.

Findings and Discussion

This section presents the findings of the study. It is presented in line of the research question used as follows:

Factors Facilitating Adoption of Instant Messaging Service for information provision in the Customer Service Divisions of the Federal University Libraries studied in the North- Eastern State Nigeria

Availability of the network facilities play important roles in easy access and utilisation of needful information resource of the library in Customer Service Division. The staff were expected to make such facilities available in order to encourage customers to effectively and efficiently utilize the facilities for their daily activities. Table 1.1 presented the data collected and analysed base on the types of network facilities adopted with regards to instant messaging services.

Table 1. 1 Factors Facilitating Adoption of Instant Messaging Service for information provision in the Customer Service Divisions of the Federal University Libraries the North- Eastern State Nigeria

S/N	Network Facilities Adopted for Instant Messaging Service	University Libraries studied														M	SD
		UNIMAID		FUK		MAUTECH		FUG		ATBU		FUW		TOTAL			
		F	%	F	%	F	%	F	%	F	%	F	%	F	%		
1	Intranet	10	14.5	2	2.9	2	2.9	1	1.4	3	4.3	7	10.1	25	36.2	4.16	3.54
2	Internet	2	2.9	4	5.8	4	5.8	3	4.3	5	7.2	3	4.3	21	30.4	3.5	1.04
3	Local Area Network	8	11.6	2	2.9	2	2.9	0	0.0	2	2.9	3	4.2	17	24	2.83	2.71
4	Computers	6	8.7	7	10.1	7	10.1	2	2.9	5	7.2	5	7.2	32	46.4	5.33	1.86
5	Routers	5	7.2	2	2.9	2	2.9	2	1.4	2	2.9	3	4.3	17	24	2.83	1.37
6	Servers	2	2.9	3	4.3	3	4.3	3	4.3	2	2.9	4	5.3	18	27.3	3	0.78

Key: UNIMAID= University of Maiduguri – FUK= Federal University of Kashere- MAUTECH= Madibo Adamawa University- FUG= Federal University Kashere – ATBU= Abubakar Tafawa Balewa University- FUW= Federal University WukariVH= Very high VL= Very Low-U= Undecided

Based on the mean score of 3.0 as the benchmark. Table 1.1 showed the Network Facilities adopted for Instant Messaging Service. The services were computer, Intranet, Internet, Local Area Network with means scores of 5.33, 4.16, 3.5 respectively. However, based on the bench mark mean score of 3.0, Router, Server were the ones with the low level of adoption with the mean scored of 2.83,2.82. The findings of this study is in line with the study conducted by Tekale & Dalve-Pati (, 2019) who enumerated the type of Internet facilities used for Instant Messaging. They are: Email, telephony Internet, Internet Relay Chat (IRC), Videoconferencing. Internet telephony and integrate telephone services into computer networks. This technology is combination of hardware and software that enables the use of Internet as the transmission medium for telephone calls and the rest. This implies that the customers patronize and demand the use of the facilities more often at the Customer Service Divisions.

Library Customers Satisfaction with the Adoption of Instant Messaging Service for Information Provision by the Customer Service Divisions of the Federal University Libraries in the North- Eastern Nigeria.

Customer Satisfaction is a fundamental priority of any organisation. This section was set out to identify satisfaction of the customers with the Adoption of Instant Messaging Service for information Service, provided for them the table 1.2 presented the data analysed with regards to the Customers satisfaction with adoption of Instant Messaging Service. (IMS)

Table 1.2 Library Customers' Satisfaction with Adoption of Instant Messaging Service for Information Provision

S/N	Types of Instance Messaging Service	University Libraries studied																		TOTAL		M	S.D
		UNIMAID			FUK			MAUTECH			FUG			ATBU			FUW						
		HS	RN	U	HS	RS	U	HS	RS	U	HS	RS	U	HS	RS	U	HS	RS	U				
		F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F%	F	%		
1	Short Messaging Service	153 (45)	52 (15.3)	23 (6.8)	15 (4.4)	10 (2.9)	3 (0.9)	1 (0.3)	0 (0.0	0 (0.0)	6 (1.8)	4 (1.4)	0 (0.0)	34 (10)	11 (3.1)	0 (0.0)	17 (5)	10 (2.9)	1 (0.3)	340	100	18.88	36.2
2	Group Chatting Service	131 (38.5)	64 (18.8)	33 (9.7)	1 (0.3)	20 (5.9)	7 (2.0)	0 (0.0)	1 (0.3)	0 (0.0)	0 (0.0)	9 (2.6)	1 (0.3)	44 (12.9)	1 (0.3)	0 (0.0)	0 (0.0)	17 (5)	11 (3.2)	340	100	18.88	33.3
3	Teleconferencing Service	126 (39.6)	68 (20)	34 (10)	1 (0.3)	20 (5.9)	7 (2.0)	0 (0.0)	1 (0.3)	0 (0.0)	0 (0.0)	2 (0.6)	8 (2.4)	40 (11.8)	5 (1.5)	0 (0.0)	0 (0.0)	15 (4.4)	13 (3.8)	340	100	1888.	32.3
4	Videoconferencing Service	132 (38.8)	81 (23.8)	15 (4.4)	1 (0.3)	12 (3.5)	15 (4.4)	0 (0.0)	1 (0.3)	0 (0.0)	0 (0.0)	6 (1.8)	4 (1.2)	35 (10.3)	10 (2.9)	0 (0.0)	0 (0.0)	18 (5.3)	10 (2.9)	340	100	18.88	34.3

5	Live Messaging Service	127 (37.3)	74 (21.8)	27 (7.9)	9 (2.6)	19 (5.6)	1 (0.3)	0 (0.0)	1 (0.3)	0 (0.0)	1 (0.3)	9 (2.6)	0 (0.0)	40 (11.8)	5 (1.5)	0 (0.0)	15 (4.4)	11 (3.2)	2 (0.5)	340	100	18.88	32.9
6	Cross platform Messaging Service	153 (45)	54 (15.9)	21 (6.2)	2 (0.6)	13 (3.8)	13 (3.8)	0 (0.0)	1 (0.3)	0 (0.0)	4 (1.2)	3 (0.9)	3 (0.9)	37 (10.9)	6 (1.6)	2 (0.6)	0 (0.0)	11 (3.2)	17 (5)	340	100	18.88	36.4
7	Email Messaging Service	138 (40.6)	59 (17.4)	31 (9.1)	20 (5.9)	7 (2.0)	1 (0.3)	1 (0.3)	0 (0.0)	0 (0.0)	3 (0.9)	4 (1.2)	3 (0.9)	39 (11.5)	4 (1.2)	2 (0.6)	17 (5)	11 (3.2)	0 (0.0)	340	100	18.88	33.9
8	Internet Relay Chat	145 (42.6)	43 (12.6)	41 (12.1)	0 (0.0)	14 (4.1)	14 (4.1)	0 (0.0)	1 (0.3)	0 (0.0)	0 (0.0)	5 (1.5)	5 (1.5)	35 (10.3)	8 (2.4)	2 (0.6)	1 (0.3)	15 (4.4)	12 (3.5)	340	100	18.88	34.5

Key: UNIMAID= University of Maiduguri – FUK= Federal University of Kashere- MAUTECH= Madibo Adamawa University- FUG= Federal University Kashere – ATBU= Abubakar Tafawa Balewa University- FUW= Federal University WukariVH= Very high VL= Very Low-U= Undecide

HS=highly satisfied-HS representing- highly satisfied and satisfied- RS= rarely satisfied- RS representing rarely satisfied and not satisfied-U= undecided.

Based on the mean benchmark mean score of 3.0, it revealed that, the customers found Instant Messaging Service interested and useful to them for their daily activities. The services were at above average comprised of: Cross Platform Messaging Service, Short Messaging Service, Internet Relay Chat, Videoconferencing Service, Email Messaging Service, Group Chatting Service, Teleconferencing Service and Live Messaging Service respectively with the mean scores of 18.88 respectively. This finding is in line with the study conducted by. John, Henry &Funmilayo, (2020) which stated that in the workplace, IM can offer a cost-effective means of connecting in real-time and may increase communication effectiveness between employees. It offers a number of advantages over email, telephone, and face-to-face between the customers and the library staff. Within the academic library, IM offers the possibility of not only improving access to librarians for research help but also provides the opportunity to enhance communication and collaboration throughout the entire organization. This implies that, the customers were highly satisfied and impressed with the services rendered to them because of the technological adoption which facilitated quick access to information.

Summary of the Findings

The followings were the findings of the study based on the data collected and analysed.

1. Factors facilitating adoption of Network facilities for the Instant Messaging Service in the Federal University Libraries Studied were Internet, local Area Network, Computer and Router.
2. The library Customers level of satisfaction with the adoption of Instant Messaging Service for information provision in the Federal University Libraries studied were, Short Messaging Service, Cross Platform Messaging Service, Internet Service Relay chat and Email Messaging Service. They eased the customer's ways of accessing information in the library.

Conclusion

From the analysis and summary of the findings of this study, it was deduced that, the factor facilitating adoption of Instant Messaging Service by the Customer Service Divisions of the Federal University Libraries studied had significant influenced on both the staff and students. It has improved the quality of Information Services provided rendered to the Customers. In the same vein the Customers were impressed and satisfied with the technological adoption with for information provision to them.

Recommendations

From the findings and the conclusion of the study the following recommendations were proposed.

1. In order to maintain the level of adoption of Instant Messaging Services for information provision in the Customer Service Divisions of the Federal University Libraries studied should make the best used of the facilities adopted; such as Intranet, Wireless, Local Area Network, Computers, Routers, Servers at any time.

2. The Customer were highly satisfied with the adoption of Instant Messaging Service such as short messaging service, cross platform messaging service, Internet relay chat, and email messaging service for information provision. The staff of the Customers Service Divisions should give more emphasis on reaching out the customers' needs.

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ORGANISATIONAL COMMITMENT AND LIBRARIANS' PERCEIVED JOB PERFORMANCE IN ACADEMIC LIBRARIES IN SOUTHWEST NIGERIA

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Abstract
This research paper examines the connection between Organisational commitment and perceived job performance in the librarians of the selected universities in South-West Nigeria. The research design used was a cross-sectional survey. The sample population consisted of 434 academic librarians in federal, state, and private universities in the area with 314 librarians being sampled using systematic and purposive sampling techniques. Out of the 314 questionnaires issued, 309 were filled and returned, which gave response rate of 98.4. Data analysis was done using descriptive statistics (frequency, percentages, means and SDs), and inferential statistics (pearlon correlation and multiple regression analysis). The findings indicated that the perceived job performance of librarians was high (mean = 4.42) and the Organisational commitment was moderate (mean = 3.06). Perceived job performance was positively associated with Organisational commitment (r = 0.309), and the pair of variables was found to be significant in predicting perceived job performance (R 2 = 0.100, Adjusted R 2 = 0.094; p < 0.05). Also, there were no substantial differences in Organisations commitment or perception of actual job performance among librarians working in public and private universities (p > 0.05). Years of experience of librarians, however, were found to have varied statistically in regard to their perceived job performance (r = 21.592, p = 0.001). The study suggests that the management of the university should consider better Organisational commitment through sufficient professional support, good working environment and the facilities needed to make the librarians more effective. To ensure that perceived job performance is high among academic librarians in South-West Nigeria, Organisational commitment is essential in strengthening their commitment.

Keywords: Organisational Commitment, Perceived Job Performance, Academic Libraries, Librarians, Southwest Nigeria

Introduction

Librarian commitment towards work processes and organisational commitment are a state of thinking and feeling, which determine the interaction between the professional and the library setting. Such commitment has serious consequences to the decision of a librarian to renew his or her library membership and the overall performance by the librarian. According to Samuel, Onuoah, and Ojo (2014), commitment is a form of engagement that limits the freedom to act, and thus a personal choice in the field of work or life, in general. When librarians demonstrate dedication to their profession, they have higher chances of increasing their skill base and value proposition and get more successful as compared to disengaged ones. A dedicated librarian is always committed, gives the best performance when given the right incentives and through repeated displays of the said commitment earns the trust and respect of other colleagues and library users (Concise Oxford Dictionary, 2011).

Organisational commitment has always been credited with the success of an individual or an organisation since it defines the obligation of an individual to his or her employer or organisation and the willingness of an individual to follow through a given course of action. An employee who is loyal to a particular organisation identifies with it, conforms to its goals and objectives and develops improved performance level. As a result, a dedicated librarian in an academic library will be devoted to his/her job, the dilemmas involved with that job and to users, depending on the level of organisational support. Human resource strategy thus is an important outcome of organisational commitment (Dixit & Bhat, 2012; Ismail, 2012).

Organisational commitment is the factor that unites the employees with their organisation; the employees who feel as part of the organisation and understand its goals are more likely to showcase loyalty and dedication. This belief encourages employees to ensure meaningful contributions to organisational success. The affective bond that the staff develops with their organisation is instrumental in contributing towards increased commitment. Unsatisfied employees are less committed, less willing to work harder and tend to find alternative employment. In the case of the lack of new job opportunities, they become less engaged, both mentally and emotionally, reducing their efficacy in the perceived job performance (Dixit & Bhat, 2012; Yusuf & Metiboba, 2012; Folorunso, Adebowale & Abodunde, 2014).

Librarians in academic libraries are committed to the success of the institutional goals in the form of efficient service delivery. These goals can be achieved only in the case when human and material resources are adequate and there is good management of institutions and an effective leadership that ensures efficient running of library services. Leadership plays a crucial role in any organisational development (Fatokun, Salam & Ajegbomogun, 2010). There is therefore a need to study the effects of organisational commitment on how librarians perceive their perceived job performance in the selected academic institutions in Southwest Nigeria. In addition, the research will be centered on the area of library management and the issues that motivate librarians to do the best work.

Tertiary institutions cannot do without academic libraries in their academic endeavors. They have significant contribution in scholarly and scientific activities as they avail information resources to the students, faculty, and researchers. Katamba, and Abdulsalam (2014) describes academic libraries as highly structured systems, which are integrated in the learning and research contexts. Imam, Abbasi, Muneer and Qadri (2013) emphasizes that academic libraries provide access to vital information sources to lecturers, researchers, scientists, policymakers as well as the students. In the modern academic libraries, information and communication technology (ICT) is being used to complement the service delivery process, since it allows the effective collection, storage, retrieval, and dissemination of data. However, human resources are the most essential in the attainment of these goals.

Academic libraries have human resources that comprise of professionals with varying intellectual abilities and expertise. Academic libraries help higher education institutions in training and developing highly skilled professionals that facilitates national development. Libraries also need specific staff, such as librarians, library officials, assistants, attendants, and technical people to reach their goals. Organisational commitment is important in keeping the employees committed and interested in their roles.

The professional library workers have been trained in library and information science, and have acquired at least a bachelor degree in librarianship. Others have higher degrees like masters of doctoral degrees. They are supposed to manage the sections of the library, acquire, classify materials, make references, and promote the circulation of libraries. Paraprofessional employees, in their turn, are trained on the diploma level and help professional librarians by completing the support functions, including the filing and cataloguing of books and their upkeep (Mardanov, 2024).

Considering the above, researchers state that organisational commitment largely influences the perceptions of the perceived job performance by librarians. Although different researches have been conducted on the aspect of organisational commitment individually, there is still a gap that exists to understand its effects on research libraries in Southwest Nigeria. Furthermore, the differences in the economic and sociocultural backgrounds show that the results of the research that is carried out in the Western countries are not necessarily transferable to the developing countries. This research is therefore aimed to critically examine the correlation between organisational commitment and the perceived job performance among librarians in the Southwest Nigerian academic libraries.

Statement of the Problem

University libraries are used to support overall university goals, which are learning, teaching, research, and community service. To achieve these goals, librarians should effectively perform their specific roles in order to enhance productivity in institutions. However, without the input of dedication and commitment that its human resources have, an Organisation cannot thrive. Lack of Organisational commitment can foster low productivity, high levels of absenteeism and high levels of staff turnover as well which is harmful to the stability and effectiveness of the Organisation.

The low Organisational commitment levels among the librarians in the university libraries are an indication of reduced commitment to the librarians own institutions. The impetus behind this phenomenon is often the feeling of regret over the profession, the loss of the motivation towards the job, and the willingness to pursue the better opportunities elsewhere. Early research has shown that librarians are not only irregular in their punctuality but also are not fully dedicated to their work and even their presence in the university libraries is not always working in the best interests of the institutions. Therefore, their perceived job performance is not so good as expected. Moreover, the attitudes of librarians towards users of libraries and the

way they approach services are usually poor which can be explained by the lack of Organisational commitment.

It follows that this research is therefore an attempt to explore the nexus between Organisational commitment and perceived job performance among librarians in selected university libraries in Southwest Nigeria. The study will help evaluate the Organisational commitment and the perceived job performance of the librarians, as well as examine the factors which affect them.

Objectives of the Study

The specific objectives of the study are to:

1. Ascertain the level of perceived job performance of librarians in selected universities in Southwest, Nigeria.
2. Determine the level of organisational commitment of librarians in the selected universities in Southwest, Nigeria.
3. To find the relationship between organisational commitment and perceived job performance of librarians in selected universities in Southwest, Nigeria.

Literature Review

Organisational commitment is among the key concepts that have been extensively researched about employee motivation, personnel, and performance. It is crucial in any organisation because it is believed that those who have a strong organisational drive work harder to contribute to the performance of the organisation, whereas those who lack the drive or are dissatisfied with their workplace are less emotionally and psychologically committed to the organisation (Ogunbanjo 2021). Various studies have been conducted by various scholars to investigate the relationship between organisational drive and performance.

Previous research has shown a variety of outcomes. Some have seen a beneficial association between organisational dedication and performance, but others have shown a negligible relationship between the two. Susanty and Miradipta (2013), Shihhosseini and Nadi (2015) performed a study on full-time employees working for three businesses in the industrial sector. In Jordan, researchers discovered a link between employee work success and continuing organisational commitment.

In addition, Malik, Ghafoor, and Naseer (2011) analysed and quoted a study to investigate the connection between organisational effectiveness and employee motivation and performance in Pakistan's banking and communications industries. A Pearson correlation was done on a sample of 103 respondents. The findings demonstrated a high correlation between organisational effectiveness and employee motivation. This illustrates how a business can create extraordinary perceived job performance output by increasing librarians' efficiency and effectiveness. Ahmed, Babatunde, and Oshinaike (2024) investigated the organisational and psychological predictors of perceived job performance among librarians at private institutions. Employees at private university libraries in Nigeria reported in this study that organisational attributes, including organisational devotion and organisational culture, are better markers of perceived job performance than psychological factors (work

motivation and self-esteem). According to the findings, organisational commitment and work success, as stated by academic librarians, are strongly correlated.

In contrast, it was discovered that when an organisation practices self-government, autocratic leadership styles and authoritarian regulations are in place, and only those at the top make choices and give instructions to subordinates to do various tasks. This indicates that there is no organisational component (organisational commitment) or psychological element (self-esteem), and this sort of organisational environment suppresses innovations that would improve workers' perceived job performance in order to achieve the organisation's goals and objectives. As a result, their work performance suffers. When authoritarian leadership styles leave academic libraries, motivation suffers, and librarians' self-esteem suffers because of their inability to do their jobs successfully. This demonstrates that there can never be a strong link between organisational commitment and employee perceived job performance , and that this will always hurt organisational development, success, and performance (Manzoor, 2012; Ogiamien & Izuagbe, 2016).

Employee commitments, such as emotional commitment, continuance commitment, and normative commitment, were examined by employees in a division in Pakistan to see how they affected how well they believed their jobs were being performed. The research showed a positive relationship between worker commitment and rated job performance (Khan, Farooq & Khan, 2010). Because of this, the perceived quality of the work performed by librarians was found to be a good indicator of their commitment. To improve employee performance and, as a result, organisational performance, he recommended that managers to pay special attention to all of the elements that come before and after employee commitment.

Affective, normative, and continual commitment are three organisational commitment dimensions that influence employee performance, according to the findings of a study by Ogunbanjo, Awonusi, and Olaniyi (2022) on the impact of organisational commitment dimensions on the performance of academic librarians at public university libraries in southwest Nigeria. The only organisational commitment that is significantly correlated with employee perceived job performance, according to Tolentino's (2013) study of academic and administrative staff at a chartered institution, is emotional commitment. Academic library leadership must consider the kinds of motivational incentives that will elicit the emotional, societal, and ongoing commitment of librarians, motivating them to be active in their careers.

Methodology

This study adopted a survey research design to examine the relationship between Organisational commitment and perceived job performance of librarians in selected university libraries in South West Nigeria. The population consisted of 434 academic librarians across federal, state, and private universities in the region. Using complete enumeration sampling, 314 questionnaires were distributed, and 309 valid responses were received, resulting in a 98.4% response rate. The sample librarians were drawn from the following universities: Federal University of Agriculture Library, Abeokuta, Ogun State (25 respondents, 8.0%); Covenant University Library, Ota, Ogun State (22 respondents, 7.0%); and University of Ibadan Library, Ibadan,

Oyo State (27 respondents, 8.6%). Data collection was done using a structured questionnaire, which had been tested on content validity and reliability. The data collection was conducted through the issuance of the questionnaires to the respondents and the recovery of the questionnaires. The analysis was further conducted using the descriptive statistics such as frequency counts, percentages, means, and standard deviations and the inferential statistics like Pearson correlation and multiple regression analysis in order to determine the relationships between Organisational commitment and perceived job performance.

Result and Discussion

The Level of Perceived Job Performance of Librarians

This objective sought to ascertain the level of perceived job performance by librarians in selected universities in the southwest, Nigeria. Table 1 comprises the responses by the study respondents.

Table 1: The Level of Perceived job performance of Librarians

S/N	Item	VLD	LD	M	HD	VHD	$\bar{x}$	SD
	Job-specific task performance							
1	I used to perform the library routine given to me in the university library	7 2.3%	10 3.2%	25 8.1%	85 27.5%	182 58.9%	4.38	0.93
2	I attend to the information requests in **this** university library	3 1.0%	7 2.3%	16 5.2%	108 35.0%	175 56.6%	4.44	0.78
	Average mean						**4.41**	**0.86**
	Non-job-specific task performance							
3	I meet the approved goals of this university library	5 1.6%	9 2.9%	12 3.9%	123 39.8%	160 51.8%	4.37	0.83
4	I do provide my input to the growth and development of this university library	3 1.0%	3 1.0%	24 7.8%	108 35.0%	171 55%	4.43	0.76
	Average mean						**4.40**	**0.80**
	Communication							
5	I use communication skills while working in the university library	3 1.0%	3 1.0%	22 7.1%	103 33.3%	178 57.8%	4.46	0.75
6	I use information tools and technologies while working in the university library	2 0.6%	5 1.6%	17 5.5%	104 33.7%	181 58.6%	4.48	0.73
	Average mean						**4.47**	**0.74**
	Demonstrating effort							
7	I am very creative and diligent at work as a librarian in this university library	2 0.6%	6 1.9%	17 5.5%	100 32.4%	184 59.5%	4.48	0.75
8	I perform my job with	3	5	24	107	170	4.41	0.78

	competency with working under pressure as a librarian in this university library	1.0%	1.6%	7.8%	34.6%	55.0%		
Average mean							**4.45**	**0.77**
	Personal discipline							
9	I perform my work schedule on time in this university library	1 0.3%	6 1.9%	15 4.9%	105 34.0%	182 58.9%	4.49	0.71
10	I am always working in the university library	4 1.3%	3 1.0%	19 6.1%	94 30.4%	189 61.2%	4.49	0.77
Average mean							**4.49**	**0.74**
	Peer/team performance							
11	I love working with other librarians in this university library	4 1.3%	4 1.3%	19 6.1%	109 35.3%	173 56.0%	4.43	0.78
12	I also assist other librarians in this university library	2 0.6%	5 1.6%	18 5.8%	106 34.3%	178 57.6%	4.47	0.74
Average mean							**4.45**	**0.76**
	Supervision/leadership							
13	I also assess work performed by other librarians in this university library	6 1.9%	11 3.6%	29 9.4%	105 34.0%	158 51.1%	4.29	0.92
14	I work with minimum supervision in this university library	3 1.0%	12 3.9%	23 7.4%	93 30.1%	178 57.6%	4.39	0.86
Average mean							**4.34**	**0.89**
	Management/administration							
15	I always coordinate the ability of librarians in my library	8 2.6%	10 3.2%	28 9.1%	112 36.2%	151 48.9%	4.26	0.94
16	I anticipate and proffer solutions to problems in this university library	5 1.6%	4 1.3%	29 9.4%	111 35.9%	160 51.8%	4.35	0.83
Average mean							**4.31**	**0.89**
	Average Weighted Mean = 4.42 (0.81)							

Table 1 shows that the level of perceived job performance of librarians in university libraries in Southwest, Nigeria was high ($\bar{x}\bar{x}$= 4.42). Perceived job performance was divided into eight dimensions, namely: job-specific task performance, non-job-specific task performance, communication, demonstrating effort, personal discipline, peer/team performance, supervision/leadership and management/administration. The group mean for each perceived job performance dimension was also calculated. The result revealed that personal discipline($\bar{x}\bar{x}$= 4.49), non-job specific task performance ($\bar{x}\bar{x}$= 4.47) communication($\bar{x}\bar{x}$= 4.47), demonstrating effort($\bar{x}\bar{x}$= 4.45), peer/team performance ($\bar{x}\bar{x}$= 4.45), job specific task

performance($\bar{x}\bar{x}$= 4.41), supervision/leadership ($\bar{x}\bar{x}$= 4.34) and finally, management/administration ($\bar{x}\bar{x}$= 4.31) were high. This implies that the level of perceived job performance of librarians in university libraries in Southwest, Nigeria was high.

Level of Organisational commitment of librarians

This objective sought to determine the level of organisational commitment of librarians in selected universities in the southwest, Nigeria.

Table 2: Level of organisational commitment of librarians

S/N	Librarians' commitment	VLD	LD	HD	VHD	$\bar{x}$	S.D
	Affective Commitment						
1.	This university library has a great deal of personal meaning for me.	25 8.1%	42 13.6 %	124 40.1 %	67 21.7 %	3.54	1.20
2.	I would be happy to spend the rest of my career in this university library.	42 13.6 %	38 12.3 %	104 33.7 %	58 18.8 %	3.32	1.29
3.	I am fortunate to be an integral part of this university library.	25 8.1%	27 8.7%	127 41.1 %	60 19.4 %	3.55	1.14
4.	I really feel that this university library's problems are my own.	31 10.0 %	33 10.7 %	108 35.0 %	57 18.4 %	3.41	1.20
5.	I do feel a strong sense of belonging to this university library.	21 6.8%	29 9.4%	121 39.2 %	69 22.3 %	3.61	1.13
6.	I do feel emotionally 'attached' to this university library.	30 9.7%	36 11.7 %	113 36.6 %	68 22.0 %	3.50	1.23
3.49	**1.20**						
	Normative Commitment						
7.	I would feel guilty if I left this university library	64 20.7 %	49 15.9 %	76 24.6 %	56 18.1 %	3.04	1.40
8.	This university library deserves my loyalty	28 9.1%	30 9.7%	98 31.7 %	75 24.3 %	3.52	1.22
9.	I owe a great deal of personal achievement to this university library.	32 10.4 %	39 12.6 %	111 35.9 %	49 15.9 %	3.34	1.19
10.	I do feel an obligation to remain with this university library.	40 12.9 %	51 16.5 %	99 32.0 %	45 14.6 %	3.19	1.25
3.27	**1.27**						

	Continuance Commitment						
11.	It would be difficult for me to leave this university library even when the opportunity exists elsewhere.	62 20.1 %	51 16.5 %	95 30.7 %	41 13.3 %	3.01	1.35
12.	I believe that I have too few opinions to consider before leaving this university library.	51 16.5 %	61 19.7 %	82 26.5 %	49 15.9 %	3.06	1.33
13.	My commitment to this university library makes it difficult for me to work elsewhere.	49 15.9 %	80 25.9 %	73 23.6 %	48 15.5 %	2.97	1.33
14.	The scarcity of alternative jobs makes it difficult to leave my present job.	54 17.5 %	54 17.5 %	73 23.6 %	58 18.8 %	3.09	1.36
15.	Leaving this university library right now will disrupt the plans I have for myself.	60 19.4 %	55 17.8 %	68 22.0 %	56 18.1 %	3.02	1.38
16.	Staying with this university library is a matter of necessity.	41 13.3 %	63 20.4 %	81 26.2 %	59 19.1 %	3.17	1.32
3.05	**1.35**						

Table 2 shows that the level of organisational commitment of librarians in university libraries in Southwest, Nigeria was moderate ($\bar{x}\bar{x}$= 3.06). Organisational commitment was divided into three dimensions, namely: affective commitment, normative commitment and continuance commitment. The group's mean for each organisational commitment dimension was also calculated. The result revealed that affective commitment ($\bar{x}\bar{x}$= 3.49), normative commitment ($\bar{x}\bar{x}$= 3.27) and continuance commitment ($\bar{x}\bar{x}$= 3.05) were moderate. This implies that the level of organisational commitment of librarians in university libraries in Southwest, Nigeria was moderate.

Relationship between organisational commitment and perceived job performance of librarians

This objective sought to find out the relationship between organisational commitment and perceived job performance of librarians in selected university libraries in Southwest, Nigeria?

Table 3: Relationship between organisational commitment and perceived job performance of librarians

Variables	**Mean**	**Std. Dev.**	**N**	**R**	**p-value**	**Remarks**
Perceived job performance	65.58	9.08	309	.309*	.000	Sig.
Organisational commitment	52.32	15.13				

Table 3. There is a good correlation between organisational commitment and perceived work performance of librarians in a few Southwest Nigerian university libraries (r = 0.309). An alpha value of 0.05 was applied to the derived significant probability value (p-value) of 0.000. The null hypothesis is rejected since the significant probability (p-value) of 0.000 is less than the alpha value of 0.05. This suggests that, in a few Southwest Nigerian university libraries, librarians' reported work success is positively correlated with organisational commitment.

The findings, the librarians in the university libraries in Southwest Nigeria exhibit a great deal of perceived job performance, with an overall mean of 4.42 of eight dimensions which include: job-specific task performance, non-job-specific task performance, communication, demonstrating effort, personal discipline, peer/team performance, supervision/leadership, and management/administration. The highest mean (4.49) was registered by personal discipline and then close behind were non-job-specific task performance and communication (both at 4.47). This implies that librarians are very self-controlled, communicate effectively, and perform more than their assigned work, which promotes the effectiveness of teams and leadership in libraries. These findings are in agreement with other comparable studies conducted in Nigerian academic libraries that indicate the librarians are performing their institutional duties well and are also playing an important role in library development and service delivery (Adewoyin, Nkechi & Madukoma 2020; Nazneen & Mohammad 2017).

Organisational commitment of the librarians was moderate (mean = 3.06), affective commitment (3.49) being more than normative (3.27) and continuance commitment (3.05). It means that librarians are quite emotional and have a sense of obligation to their institutions, as well as might balance the costs and benefits of their continued employment, which might impact retention and engagement in the long run. The medium level indicates possible vulnerabilities; an example of such a situation is environmental or managerial changes that are likely to decrease commitment and affect performance in a negative way, which correlates with the results of Adewoyin, Nkechi & Madukoma (2020) and Mayowa-Adebara (2018).

Organisational commitment and perceived job performance showed a statistically significant positive correlation (r = 0.309, p = 0.000) and support the hypothesis that increasing commitment correlates with better job performance. This correlation explains that, the more emotionally engaged and the more committed librarians are to their libraries, the better they do and show more efforts in terms of task and leadership aspects. The statement is in line with the results of Usman et al. (2018) and Agwu (2014) both authors have revealed that an engaged workforce promotes increased productivity and accomplishment of goals in academic libraries.

The practical implications are also evident: the library management must pay its attention to the strategies that can be used to increase the three types of the Organisational commitment. This may involve professional development, supportive leadership approaches, recognition and reward systems and alleviating the workplace

conditions to enhance emotional attachment of librarians and lower their risk of turnover. Through the maintenance and enhancement of Organisational commitment, university libraries will be able to maintain and enhance high levels of job performance that is vital towards the achievement of academic and research demands. The combination of the performance dimensions and Organisational commitment results demonstrates that the degree of Organisational commitment to the institution has a positive impact on the dedication, communication, and leadership skills of the librarians, which, in turn, has a positive effect on the overall effectiveness of the library and the quality of its services (Adekunle, 2020; Nazneen & Mohammad 2017); Usman et al. (2018) and Agwu (2014).

Conclusion and Recommendations

The results of the current research supported the hypothesis according to which librarians working at one of the sample libraries in the southwestern region of Nigeria were assessed as having a high level of performance. The perceived job performance measures testify to the fact that librarians are skilled in various activities, which include collection management, reference services, and cataloguing. However, one of the results raised an interesting concern of how librarians faced challenges in predicting the possible challenges and designing responsive measures, hence a need to continue developing specific skills to enhance their effectiveness and coordination. The study also shed light on the central role of organisational commitment in determining the perceived job performance by librarians. The presence of strong service to the host institutions by librarians increases their chances of creating good impacts to the overall goals of the library. The findings suggest that perceived job performance can be increased through the development of a working environment that makes librarians feel appreciated, encouraged, and engaged in professional development processes, such as workshops, conferences, and seminars.

The most important resource of any library organisation is the human resource which brings in creativity, expertise and innovations that can improve productivity of the institutions. Organisational commitment, which consists of affective, continuance and normative dimensions, has an impact on the sense of belonging and commitment to the institution amongst the librarians. This study recommends that university library administrators in Southwest Nigerian universities acknowledge the dynamic nature of their work environment and adopt strategies that promote professional growth, engagement, and long-term commitment among librarians.

Based on the findings, it is recommended that the perceived job performance because the researchers reported a high degree of perceived job performance in various dimensions that included personal discipline, communication, and task performance. Incentives are required to sustain and improve such positive behaviours. To maintain high efficiency and effectiveness in libraries, reward systems, professional development programs, and sufficient resources should be provided to librarians, and Organisational commitment enhanced with an intermediate rate of organisational commitment, especially management should use strategies that would enhance the emotional and normative commitment of librarians. This may include the development of more participatory decision-making schemes, acknowledgment of

employee merits, and developing career growth opportunities, which will entrench librarians' loyalty and diminish turnover intentions. Furthermore, the association between commitment and performance is also necessary to be studied. The fact that the organisational commitment and perceived job performance have a positive relationship highlights the need to adopt integrated human resource practices that at the same time improve the two constructs. This, practically, involves encouragement of the librarians by providing them with supportive leadership, specifying the objectives of the institution, and providing them with frequent feedback, thus not only enhancing their sense of commitment but also raising their job performance.

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INFORMATION LITERACY SKILLS FOR RETRIEVAL OF INFORMATION RESOURCES BY SCIENCE AND TECHNOLOGY STUDENTS IN FEDERAL POLYTECHNIC, OFFA KWARA STATE OF NIGERIA

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Abstracts

The study assess Information Literacy Skills for the Retrieval of Information Resources by Science and Technology Students in Federal Polytechnic, Offa, Kwara State, Nigeria. The main objectives of the study was to assess the level of information literacy skills for retrieving of information resource by science and technology students. Quantitative research methodology and descriptive survey research design were employed. Population consisted of 401 students of the HND program. Questionnaire was used as the instrument for data collection. Total enumeration sampling technique was used for sample selection. The study found that students demonstrate a high level of literacy in searching and critical thinking skills. It also identified difficulty in evaluating the source credibility as the most significant challenges encountered in retrieving information resources by science and technology students in Federal Polytechnic, Offa. The study concluded that majority of science and technology students in federal polytechnic, Offa were technology literate in searching and critical thinking, inability to effectively evaluate credibility and reliability of information resources. It recommended that management should address digital literacy challenges by embedding digital literacy modules into all academic programs and organizing focused training sessions. However, Librarians, IT experts, and faculty should jointly design these programs to make them practical and engaging.

Keywords: Information literacy, Information resources, Retrieval skills, Students, Science and Technology.

Introduction

In the era of rapid technological advancement and information explosion, the ability to search, evaluate, and use information effectively has become essential skills for students, particularly those in the fields of science and technology. Today's learners need to know that information has been made available in large quantities over time, but the 21st century has been described as "information overload". This is because the volume of information being produced today is enormous and comes in various formats. The users of information today are probably not having a problem with the availability of information, but getting the most trusted and fair information from the clutter of the information available (Mingyue & Ali 2021).

Information literacy skills are a set of skills needed to find, retrieve, analyze, and use information. In an information-oriented environment, a person needs to be able to recognize the need for information, be aware of the resources available, know how to find the information, evaluate the results, work with or exploit the results, use, communicate or share the information responsibly and ethically (Shyh-Mee, and Singh, 2008). Consequently, it enables students to identify their information need. Students who lack these skills experience delays and frustrations when attempting to complete course-related work which requires research (Oakleaf & Owen, 2010). More also information literacy includes the capability of individuals to identify, locate, and critically evaluate information for decision making, knowledge creation, and problem solving. In the words of Omarsaib (2015), in the 21st century, largely depend upon being able to access information using technology and being able to manipulate technology to access and use information ethically. This implies that information literacy skills constitute the ability to find, retrieve, analyze, and use information. But for clarity and consistency, this study used information literacy skills to represent all skills that enable information users to retrieve and exploit a wide range of information sources, resources, and services provided via library walls or remote access and the Internet. Such skills include skills for using OPAC, databases, institutional repositories, Internet Search Engines, and ICT skills for information retrieval.

On the other hand, Information retrieval refers to the ability to effectively locate, access, and retrieve information from various sources, including digital databases, libraries, archives, and the internet. These skills encompass techniques for formulating search queries, evaluating search results, and refining search strategies to find relevant and reliable information. Additionally, information retrieval is the technical skills and knowledge needed to explore and use information retrieval tools to identify available resources and distinguish them from other resources not needed (Onah, *et al*., 2020).

So also, information retrieval is concerned with retrieving documents that are likely to be relevant to a user's information need as expressed by his request (Fordjour, *et al*., 2010). A request is an imperfect expression of a user's information need which must have been defined (Omiunu, 2014) and only a user will be able to tell whether a document retrieved contains the information such user is seeking (Fordjour *et al*., 2010). This implies that documents retrieved may not be relevant to a request, and two users with identical requests submitted can be satisfied in different ways. One document may be relevant to one user and not to the other.

Now that more and more information resources is available online in digital format than in print which play a significant role in the day to day activities of any science and technology students as observed by Bankole, Ajiboye and Otunla (2015) identified information resources provided in electronic formats such as internet, CDROM databases, e-books e-journals, Online database, Online Public Access Catalogues, and other computer –based electronic networks which encompass a wide range of products, including e-books, e-serials/e-periodical, CD-ROMs, mailing list, databases, etc. These resources have a common feature of being used and sometimes

modified by computer systems. In the same vein, Yakubu and Olatoye (2015) information resources are the information on devices such as the net, hard disc, flash drive, and CDs. It could be in the form of a database application created for a particular organization that manages data and allows easy access, fast storage, and retrieval of that data. Electronic Information Resources encompass a wide range of products, including e-books, e-serials/e-periodical, CD-ROMs, mailing lists, databases, etc.

Statement of the Problem

Information literacy skills are concept, which refers to the competencies of people to recognize the need for information and to satisfy their information needs for survival, self-actualization, and development. It is made up of three elements, which include generic skills, information skills, and values and beliefs (Webb & Powis, 2022) these skills enable students to evaluate the reliability and credibility of information resources, facilitating effective retrieval and utilization of information, this is essential for achieve academic success, and for becoming informed and engaged user of information a priority among scholars, students, and researchers alike.

Despite the abundance of information resources available from different sources, students of science and technology are struggling to effectively locate, evaluate, and utilize these resources, which could be the reason they found it difficult to conduct research, evaluate critical information, cite sources, and commit plagiarism. Could this deficiency hinder their academic work, due to a lack of information literacy skills required for retrieving the available resources? Furthermore, science and technology students need to possess more skills to retrieve information.

Objective of the Study

The study has the following objectives:

1. To assess the level of information literacy skills used for retrieval of information resource by science and technology students in Federal Polytechnic, Offa.
2. To find out the extent of retrieval to information resource by science and technology students of Federal Polytechnic, Offa
3. To investigate the impacts of information literacy skills on retrieval of information among students of science and technology in the Federal Polytechnic, Offa.
4. To explore factors influencing the use of information literacy skills of science and technology Students for information retrieval and access in Federal Polytechnic, Offa.
5. To identify challenges encountered by science and technology students of the Federal Polytechnic, Offa, in applying information literacy skills in retrieving information

Literature Review

Information Literacy Skills

Over the decades, the concept has evolved from a focus on library instruction to encompass broader digital and media literacy skills. For instance, Sharma, Deepmala, and Upadhyay (2021) explained that literacy competence is a different sub-skill inclusive of ideas, opinions, making decisions, and solving problems.

So also, the Ability to seek, evaluate, recognize, know, and use information legally and ethically is information literacy skill (IL). While there is no globally accepted definition, information literacy skills are commonly understood as a set of skills that enable individuals to navigate the complex information landscape. There is a need for information literacy skills in workplaces, especially in academic environments, and because of its importance in carrying out research, learning, and handling office files and data as they come in and go out. Okoye, (2020) emphasized that each type of information is known by its function and what it stands to address. For this reason, the information user must have adequate knowledge of how to source and use information, and thus the need for Information literacy.

However, Currie and Aris (2000) argue that applying these skills in today's information-rich environment for navigating, evaluating, and using information effectively and ethically. Key skills include: Critical Thinking: enables students to analyze and evaluate information from different perspectives, recognize assumptions, and develop reasoned arguments based on evidence, Communicating Information: Effectively communicating the findings in an appropriate format, whether through writing, presentations, or other methods, ensuring clarity and proper citation. Problem-Solving and Decision-Making: librarians and educators effectively use information to make informed decisions and solve complex problems. So also Adapting to New Tools: Keeping up-to-date with technological advancements that impact how information is accessed, processed, and shared. Digital Literacy: Proficiency in using digital tools and technologies, including understanding search algorithms, evaluating the credibility of online sources, and using tools for data analysis, visualization, and organization. Ethical and Legal Understanding: Knowledge of intellectual property rights, privacy laws, and ethical standards related to information sharing, plagiarism, and use. Information Synthesis: The ability to combine information from diverse sources into coherent arguments or insights, recognizing patterns and connections, and Search Strategies: Advanced techniques for conducting effective searches in databases, academic journals, and the web, utilizing keywords, filters, and Boolean operators.

Methodology

The researcher adopted a quantitative method for the study using descriptive survey research design. The target population is school of science and technology students in federal polytechnic offa kwara state with a total number of four hundred and one (401) admitted for 2023/2024 session. The entire population was used for the study. Total enumeration sampling technique was used to examine the entire population because it was suitable for this study, and the entire population is sufficiently small, which is manageable by the researcher. In a parallel vein, Stat Trek

(2016) stated that sometimes, if the entire population is sufficiently small then the researcher can include the entire population in the study. The research instrument was used in the study is the self-developed closed-end questionnaire. The instrument was subjected to both face and content validation to ascertain the validity of the instrument. The reliability of the instrument was established by conducting a pilot study at Kwara State Polytechnic, Ilorin. The reliability index of 0.95 was obtained using Cronbach's Alpha, a researcher, which indicates that the instrument is reliable and Data collected will be coded and inputted into the SPSS.

Findings and Discussion

The response rate according to each department is presented in **Table 4.1**.

Table 4.1: Response Rate of the Students of Science and Technology.

Departments	**Copies of Questionnaire Distributed**	**Copies of Questionnaire Returned**	**Percentage of Questionnaire Returned**
Applied Physics	40	35	8.7%
Biochemical and Chemical Science	181	140	35.0%
Microbiology	180	161	40.0%
Total	**401**	**336**	**83.8%**

Source: ***Field Data 2024***

Table 4.1 reveals the response rate of the students, as shown in Table 4.1, demonstrates a high level of participation in the study, with an overall response rate of 83.8%. Out of the 401 questionnaires distributed across the three departments, 336 were returned and found useful for the study. The Microbiology department had the highest response rate at 40% (161 out of 180), followed by the Biochemical and Chemical Science department with 35% (140 out of 181). and the Applied Physics department with 8.7% (35 out of 40),

Table: 4.3 Level of Information Literacy Skills used in Retrieving Information Resources by Science and Technology Students in Federal Polytechnic, Offa

S/N	Information Literacy Skills	Highly Used		Moderately Used		Used		Low Used		Total		Mean (X)	SD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Searching Skills	150	44.6	120	36.7	41	12.2	25	7.4	336	100	3.2	0.01
2	Critical Thinking Skills	145	43.1	132	39.2	45	13.4	14	4.7	336	100	3.2	0.02
3	Analytical Skills	113	33.6	160	47.6	50	14.9	13	3.9	336	100	3.1	0.02
4	Communicating Skills	95	28.3	130	38.7	75	22.3	36	10.7	336	100	2.8	0.01
5	Problem Solving Skills	85	25.3	122	36.3	97	28.9	32	9.5	336	100	2.8	0.01
6	Retrieval Skills	95	28.3	140	41.7	75	22.3	26	7.7	336	100	2.9	0.01
7	Information Technology Skills	90	26.8	123	36.6	90	26.8	33	9.8	336	100	2.8	0.01

Source: Field Survey (2024)

Table 4.2 presented the analysis of information literacy skills utilization by science and technology students which reveals a hierarchy of skill deployment patterns. The Table showed that; searching skills and critical thinking skills demonstrated the highest level of use with identical mean scores of 3.2 each, followed by analytical skills with 3.1. retrieval skills recorded a mean value of 2.9, while communicating skills, problem solving skills, and information technology skills all achieved mean scores of 2.8 each. When evaluated against the benchmark of 2.5, all information literacy skills fall on the positive side, indicating above-threshold utilization levels among science and technology students of Federal Polytechnic Offa. This finding aligns with Ogbonna et al. (2017) who reported that majority of students expressed confidence in their information literacy skills capabilities, though the moderate mean values suggest room for improvement. The dominance of searching and critical thinking skills reflects students' recognition of these as fundamental competencies in the digital information environment. However, the relatively lower scores for problem-solving and information technology skills indicate potential gaps in advanced application capabilities. This pattern is consistent with research by Ilogho (2014), which found that students demonstrated deficiencies in identifying diverse information sources, suggesting that while basic searching skills are present, comprehensive information literacy competencies require further development.

Table 4.3: What Extent do science and technology students have access on Retrieval to Information Resources in Federal polytechnic Offa

S/N	Access to Information Resources	Highly Accessed		Moderately Access		Low Access		Not Accessed		Total		Mean (X)	SD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Monograms	126	37.5	130	38.7	40	11.9	40	11.9	336	100	3.0	0.01
2	Patents	119	35.4	135	40.2	52	15.5	30	8.9	336	100	3.0	0.01
3	E-books	156	46.4	97	28.9	67	19.9	16	4.8	336	100	3.2	0.02
4	E- Journals	110	32.7	128	38.1	83	24.7	15	4.5	336	100	3.0	0.02
5	Manuscripts	87	25.8	126	37.5	98	29.1	25	7.4	336	100	2.8	0.01
6	Archives	51	15.2	130	38.7	120	35.7	35	10.4	336	100	2.6	0.03
7	Bibliographies	85	25.3	115	34.2	91	27	45	13.4	336	100	2.7	0.01
8	Digital Databases	84	25	120	35.7	98	29.1	34	10.11	336	100	2.8	0.01
9	Magazines	58	17.3	143	42.5	110	32.7	25	7.4	336	100	2.7	0.02
10	CD ROMs	75	22.3	141	41.1	88	26.1	32	9.5	336	100	2.8	0.01
11	Thesis	86	25.6	108	32.1	119	35.4	23	6.8	336	100	2.8	0.01
12	OPAC	95	28.3	123	36.6	85	25.3	33	9.8	336	100	2.8	0.01

Source: Field Survey (2024)

This finding is supported by research from the University of Michigan (2024), which identified students' increasing preference for digital sources of information while maintaining library usage for information retrieval needs. The lower accessibility scores for traditional resources like Archives and Manuscripts may reflect both availability constraints and students' unfamiliarity with these specialized resources.

The finding implied that; the digital-first approach to information resource access suggests successful integration of technology in information seeking behaviors. However, the underutilization of specialized resources like archives indicates potential gaps in comprehensive research skills that could limit students' ability to conduct thorough academic investigations.

Table 4.4: Impact of Information Literacy Skills on retrieval to Information Resources by Science and Technology Students

S/N	**Impacts of Information Literacy Skills**	**Strongly Agreed**		**Agreed**		**Neutral**		**Disagreed**		**Strongly**		**Total**		**Mean (X)**	**SD**
		Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**		
1	Enhances students' ability to access, evaluate, information effectively	46	13.7	40	11.9	25	7.4	85	25.3	140	41.7	336	100	2.3	0.05
2	Amalgamates and generates new facts or knowledge for creative outcomes	32	9.5	51	15.2	54	16.1	89	26.5	110	32.7	336	100	2.4	0.06
3	Empowers,students to understand the content and extent of their research	25	7.4	53	15.8	52	15.5	85	25.3	121	36	336	100	2.3	0.08
4	Enables students to develop and enhance critical thinking skills	25	7.4	65	19.3	45	13.4	81	24.1	120	36.1	336	100	2.4	0.08
5	Contributes to effective decision-making, problem-solving, and innovation	25	7.4	45	13.4	71	21.1	95	28.3	100	29.8	336	100	2.4	0.08
6	Enables students to identify fake news and reliable information	55	16.4	75	22.3	25	7.4	83	24.7	98	29.2	336	100	2.7	0.05

	sources														
7	Equips students with skills to develop information-searching strategies	34	10.11	77	22.9	25	7.4	80	23.8	120	36	336	100	2.5	0.06
8	8 Enables students to adapt to new technologies	20	5.9	89	26.5	20	5.9	74	22.1	133	39.6	336	100	2.4	0.10
9	Advances personal development, academic pursuits, and future employment	23	6.8	95	28.3	77	22.9	64	19	77	22.9	336	100	2.8	0.08
10	Improves academic performance of students	59	17.5	55	16.4	75	22.3	27	8.1	120	35.7	336	100	2.7	0.03

This finding contradicts the theoretical expectations of information literacy education and aligns with concerns raised by Chukwusa (2022), who identified inadequate information literacy evaluation as a significant problem in Nigerian educational institutions. The particularly low scores for evaluation and research comprehension capabilities suggest fundamental gaps in higher-order thinking skills application.

The finding implied that; the universally negative perception of ILS impact indicates a significant disconnect between skill possession and practical effectiveness. This suggests that while students may possess technical competencies, they lack the metacognitive awareness to recognize or effectively apply these skills in meaningful ways, potentially limiting their academic and professional development.

Table 4.5: Factors influencing the use of Information Literacy Skills on retrieval of information by Science and Technology Students in Federal Polytechnic, Offa.

S/n	Factors Influencing Information Literacy Skills	Frequency	Percentage (%)
1	Technology advancement factor	134	39.9
2	Intellectual property and copy rights law factor	254	75.6
3	Ethical use of information factor	121	36.0
4	Search strategies factor	231	68.8
5	Information over load factor	123	36.6
6	Access to digital tools factor	201	59.8
7	Formal training factor	156	46.4
8	Familiarity with technology factor	211	62.8

Source: Field Survey (2024)

Table 4.5 presented the factors influencing information literacy skills utilization which demonstrate clear priority patterns among science and technology students of Federal Polytechnic Offa. The Table revealed that; intellectual property and copy rights law factors emerged as the most influential with a frequency and percentage of 254(75.6%), followed by Search strategies factor with 231(68.8%). Familiarity with technology factor with 211(62.8%), while access to digital tools factor scored 201(59.8%), formal training factor was significant for 156 students (46.4%), Technology advancement factor for 134 students (39.9%), Information overload factor for 123 students (36.6%), and followed by ethical use of information factor for 121 students (36.0%). The eminence of legal and procedural factors reflects increasing awareness of intellectual property issues in the digital age. It was found out that intellectual property and copyright law factors influenced 75.6% of students, representing the highest factor affecting ILS use. This finding is supported by research indicating that digital literacy programs in Nigerian tertiary institutions emphasize foundational skills including ethical information use (Digital Literacy and Skills Development in Nigeria, 2024). The high ranking of search strategies aligns with the earlier finding that searching skills are among the most utilized information literacy competencies.

The finding implied that; the dominance of legal and technical factors suggests that students' information literacy development is significantly influenced by external constraints rather than intrinsic motivation for learning. This pattern may indicate a compliance-driven rather than competency-driven approach to information literacy education.

Table 4.6: Challenges encountered by science and Technology Students in using Information Literacy Skills for retrieving Information Resource in Federal Polytechnic, Offa

S/N	Challenges Encountered	Frequency	Percentage (%)
1	Ineffective search strategies and keyword selection	154	45.8
2	Difficulty in evaluating the source credibility	264	78.5
3	Language barriers	131	38.9
4	Digital literacy skills	231	68.7

5	Inadequate supports from educators and librarians	113	33.6
6	Insufficient critical thinking skills	201	59.8
7	Copyright, intellectual property rights, and data privacy issues	166	49.4
8	Technical challenges such as unstable Internet connection, paywalls, and power cuts	241	71.7

Source: Field Survey (2024)

Table 4.6 presented the challenges encountered by science and technology students of Federal Polytechnic Offa and the table reveals significant barriers to effective information literacy skills implementation. The table pointed out that; difficulty in evaluating the source credibility was identified as the most significant challenge recording a frequency and percentage of 264 (78.5%), followed by technical challenges such as unstable Internet connection, pay walls, and power cuts with frequency and percentage of 241(71.7%). Followed by digital literacy skills with 231(68.7%), while insufficient critical thinking skills have a frequency and percentage of 201(59.8%). Copyright, intellectual property rights and data privacy issues challenged 166 representing (49.4%), ineffective search strategies and keyword selection recorded frequency and percentage of 154(45.8%), language barriers impacted 131 students (38.9%), and inadequate support from educators and librarians was reported by 113 students (33.6%). It was inferred that; difficulty in evaluating source credibility affected 78.5% of students, representing the most significant barrier to effective ILS implementation with inadequate support from educators and librarians as the least challenges. The predominance of credibility evaluation challenges aligns with broader research on information literacy difficulties. Ohio State University (2024) identifies evaluating information credibility as one of the most difficult challenges students faces, requiring significant knowledge of various information source types. The high incidence of technical challenges reflects infrastructure limitations commonly encountered in developing educational contexts, as documented in research on polytechnic institutions in Nigeria (Tella, 2016).

The finding implied that; prevalence of credibility evaluation challenges indicates fundamental gaps in critical thinking and analytical skills that undermine effective information literacy. Combined with technical infrastructure limitations, these challenges create a compound barrier to information literacy development that requires both educational and institutional interventions.

Conclusion

Based on the findings of the study, the science and technology students in federal polytechnic Offa discharged some level of information literacy and retrieval skills but more need to be done to enhanced their ability to evaluate credibility of information resources, and the ability to use different search strategies in information retrieval.

In line with the findings of this study, the following recommendations were made:

1. It is recommended that the federal polytechnic offa should introduce a comprehensive Information Technology Skills Development Program to address the observed deficiency in IT literacy.

2. It is recommended that the federal polytechnic offa should improves students' access and engagement with e-books by implementing targeted awareness campaigns and access support programs.
3. It is recommended that the federal polytechnic offa should implements regular and structured Information Literacy Training Programs to improve students' ability to access, evaluate, and communicate information effectively.
4. It is recommended that the federal polytechnic offa should enhances students' familiarity and comfort with technology by establishing technology engagement hubs and organizing technology orientation programs.
5. It is recommended that the federal polytechnic offa should addresses digital literacy challenges by embedding digital literacy modules into all academic programs and organizing focused training sessions.

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RECORDS MANAGEMENT PRACTICES FOR SERVICE DELIVERY BY EMBROIDERERS IN ZARIA LOCAL GOVERNMENT, KADUNA STATE, NIGERIA

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Abstract

The study investigated records management practices for service delivery by embroiderers in Zaria local government, Kaduna State, Nigeria. To identify the types of records generated for service delivery and to examine how records generated are organized for effective service delivery by embroiderers in Zaria Local Government, Kaduna State. The study adopted a Quantitative Research Methodology utilizing a Cross-sectional Survey Research Design, chosen for its efficiency in facilitating data collection from a large number of subjects at a single point in time, thereby supporting the generalization of findings to broader contexts, promoting objectivity, and providing the necessary precision for investigation. The Target Population consisted of 325 professional Embroiderers operating in Zaria Local Government, Kaduna State, drawn from four key locations: Bakin Kasuwa, Karauka, Tudun Wada, and Kofar Kuyambana. The sample size, initially insufficient at 48, was statistically determined using the Yamane (1967) formula for finite populations at a 5% margin of error, using questionnaire as instrument for data collection. The finding revealed that customer records, followed by design sketches and pattern records, moderately practiced record, also production schedules and work-in-progress records, fabrics and materials inventory records and employer records. In addition, the most frequently used method of organizing records by embroiderers in Zaria Local Government was alphabetical order, followed by numerical order. Also, moderately practiced methods included alpha-numeric order and subject-based organization. The study concluded that record management practices of Embroiderers in Zaria Local Government, Kaduna State, Nigeria are not seamless in nature. Therefore, the study recommended that Embroiderers should develop standardized templates for each record type and creating a hybrid classification system that combines these approaches could also be help.

Keywords: Records Management Practices, Embroiderers, Service Delivery

Introduction

Records management (RM) involves the systematic creation, organization, storage, and disposal of records, and it is essential for promoting accountability, efficiency, and informed decision-making. For small businesses and artisans, RM is especially important because many rely on informal documentation methods that limit their ability to track finances, comply with regulations, or access credit. Studies show that poor record-keeping practices remain common among small enterprises in developing countries, reducing their growth prospects and overall sustainability (Olajide & Obialo, 2020). Evidence from South Africa and Ghana demonstrates that effective RM significantly improves business performance, financial transparency, and managerial decision-making (Ajibade & Khayundi, 2025; Mintah, Gabir, Aloo & Ofori, 2022). In Nigeria, proper record-keeping has also been linked to better business continuity, succession planning, and improved performance among small enterprises (Nwanmuoh et al., 2025; Aderinto, 2025).

The relevance of records management for small businesses becomes particularly clear when examining embroidery in Zaria, where traditional Hausa embroidery (dinkin hannu) serves both cultural and economic functions. In this context, artisans including women and youth often operate informal workshops or home-based businesses that rely on ad hoc methods for tracking orders, materials, and sales (Mustapha, Ahmed & Shunom, 2025; Folabalogun, 2024). The lack of structured documentation limits their ability to scale operations, access finance, and plan for long-term sustainability, mirroring the broader challenges of small enterprises with poor record-keeping (Olajide & Obialo, 2020; Atah & Bessong, 2024). Recent studies highlight that revitalizing embroidery as a structured small business opportunity can promote economic empowerment while preserving cultural heritage (ResearchGate, 2023; Mustapha, Ahmed & Shunom, 2025). This underscores how implementing systematic record-keeping practices among Zaria's embroidery artisans could enhance operational efficiency, strengthen business continuity, and support both economic and cultural development, demonstrating the practical significance of RM for artisan-based enterprises.

Despite embroidery's socio-economic potential in Zaria, broader artisan businesses in Nigeria face persistent operational challenges that reflect into the embroidery trade. Many artisans struggle with poor documentation because their enterprises are informal and lack structured financial and business-record systems, limiting their ability to monitor cash flow, track orders, and plan ahead (IJSSERs, 2024). The informal nature also leads to service delays, as artisans frequently operate with inadequate infrastructure and limited access to tools or workspace, slowing down production and delivery (Professions.ng, 2023). Furthermore, the lack of formal contracts and transparent pricing can drive client conflicts, particularly around agreed designs, payment terms, and delivery expectations (InfoguideNigeria, 2025). These documentation and operational gaps undermine trust between artisans and their customers and make it difficult for artisans to scale or formalise their businesses effectively.

Effective records management (RM) can substantially enhance service delivery in small artisan enterprises such as embroidery businesses by ensuring clearer, more accountable

operations. When artisans systematically record orders, payments, and production schedules, they can reduce errors and delays, thereby delivering services more reliably and on time. Proper record-keeping also supports financial transparency and enables better resource planning virtues shown in Nigerian SMEs, where formalised accounting records drive operational efficiency and inform strategic decisions (Aderinto, 2025; Forvis Mazars, 2025). A study in Ghana likewise found that SMEs with structured RM practices make better decisions, allocate resources more effectively, and therefore deliver higher quality services to their clients. PubMed In practice, RM helps small enterprises build trust with customers by maintaining clear documentation of agreements, payments, and delivery schedules a foundation for professionalism, repeat business, and client satisfaction. As such, integrating RM into the embroidery micro-businesses in Zaria could significantly improve their service delivery capacity, reduce conflicts, and support sustainable growth.

The purpose of this study is to investigate the role of records management in improving the business operations of embroidery artisans in Zaria. Specifically, the study seeks to examine existing record-keeping practices, identify the challenges associated with poor documentation, and assess how effective records management can contribute to better service delivery and business performance. This research is significant because embroidery artisans form a substantial part of the informal economy in Zaria, yet their growth is often constrained by inefficient management systems, service delays, and frequent client disputes.

Statement of the Problem

Effective records management is widely acknowledged as central to business efficiency and long-term sustainability. In many Nigerian small enterprises, however, systematic record-keeping remains weak. According to Aderinto (2025), accounting record-keeping among SMEs significantly improves business performance, but many small business owners lack structured systems.

Despite the well-documented advantages of organized record-keeping, artisan-level businesses (such as embroidery artisans) often operate informally and do not benefit from these practices. Atah and Bessong (2024) found that poor or inconsistent record-keeping undermines the sustainability of small-scale business operators, by limiting their ability to track orders, manage finances, and maintain reliable client relationships.

Given these observations, it is reasonable to hypothesize that embroidery artisans in Zaria may face similar problems due to inadequate records management. If these artisans adopt more formal systems to document client specifications, track production, and record delivery timelines, they could reduce errors, minimize client disputes, and improve service delivery. This study therefore aims to empirically investigate how records management practices influence the operational effectiveness and customer satisfaction of embroidery artisans in Zaria, Kaduna State.

Research Questions

1. To identify the types of records generated for service delivery by embroiderers in Zaria Local Government, Kaduna State.

2. To examine how records generated are organized for effective service delivery by embroiderers in Zaria Local Government, Kaduna State.

Literature Review

Concept and Importance of Records Management

Records management (RM) is a systematic approach to creating, organizing, maintaining, and disposing of records, which supports accountability, operational efficiency, and informed decision-making in small businesses and artisan enterprises. Effective RM enables artisans to track transactions, monitor operations, and make strategic decisions that improve business sustainability. Atah and Bessong (2024) found that structured record-keeping significantly enhances the sustainability and operational performance of small-scale enterprises in Nigeria. Hamid, Maigoshi, and Abdullahi (2023) similarly highlight that proper accounting and transactional records are crucial for long-term business survival. Both studies emphasize the value of RM for operational efficiency; however, most focus on financial and operational records rather than the creative, client-specific records central to artisans such as embroidery designers. This gap indicates a need for research examining RM practices in creative enterprises, particularly regarding their influence on service quality and client satisfaction.

Critically comparing these findings, there is consensus on the foundational role of RM in small enterprises, but the literature rarely addresses how artisans integrate creative, client-centered records with financial and operational documentation.

Types of Records Generated

Employee records are an essential category of documents maintained by embroidery artisans. These include contracts, pay rates, work hours, and performance evaluations, which are critical for workforce management. Employee records ensure compliance with labor laws and provide a basis for performance reviews and fair compensation. According to Garcia and Roberts (2021), these records are especially important for embroidery businesses employing multiple workers or freelance artisans. With the growth of remote work and flexible employment arrangements in the creative sector, accurate employee records are increasingly necessary for managing diverse teams and legal compliance. Business registration and license documents constitute another vital category. These include incorporation papers, tax identification numbers, permits, and licenses. Smith and Lee (2022) note that organized legal records establish legitimacy and ensure regulatory compliance. Proper registration also builds client trust, particularly for larger contracts, enhancing the professional credibility of artisans.

Digital records, including social media interactions, website analytics, and email communications, have become central to modern embroidery businesses. Clark and Harris (2020) emphasize that digital records are critical for marketing, client engagement, and brand visibility. Websites and social media function as virtual portfolios, while analytics tools track engagement and customer behavior to inform marketing strategies. Email communications maintain client relationships by confirming orders and providing project updates. Customer feedback and review records, including satisfaction surveys, are essential for improving service

quality. Taylor and Parker (2022) observe that feedback records enable artisans to understand client preferences, address concerns, and foster loyalty.

Order and payment records are crucial for managing transactional aspects. These records track customer orders, customization details, and payment histories. Johnson and Brown (2023) assert that accurate order and payment records ensure timely delivery, prevent errors, and facilitate dispute resolution. Collectively, the variety of records from design sketches to financial statements supports efficient business management, compliance, customer satisfaction, and sustainable growth. Furthermore, embroidery designers often manage client-sourced materials, such as photographs, videos, magazine clippings, voice recordings, and links shared via WhatsApp, Facebook, Instagram, or in-person consultations. While literature recognizes the importance of design and financial records, there is a gap in empirical studies exploring how artisans integrate these diverse client-sourced records into their workflow.

Methods of Organizing Records

The organization of records is central to effective RM. Onwuchekwa and Ukpong (2023) report that SMEs using structured filing systems and digital tools experience fewer errors and operational delays. Hamid et al. (2023) also highlight that accounting software and spreadsheets improve financial tracking and reporting. In artisan businesses, records organization involves cataloging design sketches, logging client interactions, maintaining production schedules, and tracking inventory systematically. Critically, many small artisans rely on informal systems, such as notebooks, WhatsApp messages, and client-provided references. While these methods offer flexibility, they can result in lost information or errors. This gap highlights the need to study hybrid record-keeping methods that combine traditional and digital approaches in artisan enterprises.

Records Management and Service Delivery

RM directly impacts service delivery outcomes, including timeliness, accuracy, and client satisfaction. Eke, Nwonu, and Obayagbonna (2023) demonstrate that SMEs with organized records meet deadlines more reliably and minimize operational errors. Aderinto (2025) similarly shows that structured record-keeping improves transparency, reliability, and trust between businesses and clients. For embroidery artisans, accurate design, material, and client interaction records influence the quality of the final product and overall customer experience. Comparing studies, while there is consensus that RM enhances service quality, empirical evidence on artisan enterprises remains limited. Few studies investigate how integrating creative, client-specific records affects order accuracy, production timelines, and customer satisfaction, underscoring a gap this study seeks to address.

The relationship between records management and service delivery in embroidery enterprises becomes clearer when viewed through the lens of the Records Life Cycle Model. Each stage of the life cycle record creation, classification, maintenance, use, and disposition directly influences how efficiently and accurately embroidery artisans interpret client requests, manage workflow, and deliver finished products.

Theoretical framework

At the creation stage, embroidery artisans receive client instructions through verbal consultations, sketches, photographs, digital images, voice notes, and social media messages. If these inputs are not properly documented, details may be forgotten or misinterpreted, leading to design errors, inaccurate measurements, or mismatched garments. Effective record creation therefore enhances clarity and reduces ambiguity in service delivery.

During the classification and maintenance stages, records must be systematically organized into categories such as measurements, design specifications, production timelines, payment details, or digital references. When such records are poorly arranged scattered across notebooks, unsorted phone galleries, or unorganized WhatsApp threads artisans experience delays, confusion, and errors. Conversely, proper classification supports timely retrieval, prevents mistakes, and contributes to punctual delivery.

At the use stage, embroidery artisans continually rely on records while stitching, modifying designs, tracking clients' preferences, and updating order progress. The accuracy of this stage depends entirely on how well earlier record-keeping activities were executed. Well-maintained records promote reliability, enabling artisans to consistently meet client expectations. Finally, the disposition stage, which involves archiving or safely disposing of records, affects long-term customer relationships. Archived records help artisans serve returning customers more efficiently because previous measurements, design preferences, and transaction histories are readily available. This continuity strengthens trust and fosters repeat patronage.

Empirical Studies Related to Artisans or Small-Scale Enterprises

A study conducted by Mzera (2024) examine the influence strategic record management and Small Enterprise Growth in Kenyan Coast. It specifically investigated the types and procedures of strategic records as well as the perceptions of enterprise owners towards strategic records management. A semi structured questionnaire was administered to 384 Embroiderers that were sampled through simple random sampling. Reliability and validity of the questionnaire was done using Cronbach's Alpha whose results were reliable at above 0.7. Data was analyzed using descriptive as well as inferential statistics with the help of Statistical Package for Social Scientists. Particularly noteworthy was the strong positive linear relationship between Growth of Small and Medium Enterprises (SMEs) and Treasury Single Account (TSR) (R= 0.645, p-value= 0.000). However, the dependent variable showed a moderate correlation with PEO (R= 0.228, p-value= 0.000). These Pearson correlation coefficients indicated the individual impact of each variable on a unit increase in Growth of SMEs. It was further revealed that a one-unit increase of TSR was associated with a 0.021 unit increase in growth of small enterprise. Besides, a unit increase in PEO yielded a 0.400 unit increase in growth of small enterprises.

The findings of the study revealed that there was a significant relationship between strategic records management and the growth of small enterprises in Kenyan coast. The study identified certain key strategic record management records that were necessary for growth of Substitute Effect (SEs) such as financial records, customer records and procurement records among others.

The study also established that SE owners had a positive attitude towards strategic record management but variety of tools which can provide and generate the required info to meet managerial needs. The study concluded that there was need for creation of awareness, training and continuous improvement with reference to the uptake of strategic records management practices by small enterprises in Kenyan Coast.

A study conducted by Chauhan(2020) investigated that, With the rise of eco-consciousness in consumers, craftsmanship and artisanship have been on an upward trajectory, this emerging interest in meaningful connections with the material, where handcrafted products are regarded as a sustainable alternative and an embodiment of cultural heritage, produced with minimal waste and use of natural material, is seen as a direct response to environmental issues within the industry (Mamidipudi, 2018) and a part of the slow movement, challenging the mass-produced and homogenous styles (Fletcher, 2010). Designers in today's environment with their heightened sense of social responsibility (Papanek, 1985) have taken upon a strategic role of preserving and aiding the same handicraft industry. Although on one hand interest in crafts has led to its popularity, on the other it has led to the reduced skill level of artisans (Scrase 2003), as the artisans now reproduce simpler designs for an alien, volatile market, often far away from their cultural context, reducing their role to that of a producer or labour (Scarse, 2003; Mamidipudi, 2018), pushing the younger generation of artisans to see future in the craft industry as impractical and the perception of crafts in society problematic (ibid). This creates a binary setting where the artisans occupy the place of struggling old traditional group, in a need of an upgrade or modernisation. These mainstream craft narratives in the fashion industry focus largely on innovation and reformation through new technology and modernisation of traditional practice, shifting the ownership of craft knowledge from practitioners to designers, creating hierarchy in the system, stripping the artisans of their knowledge and failing to recognise craftspeople in the creative sphere as creatives. Therefore, the focus of this research is to explore a grass-root solution for the alleviation of artisan's status, to consider them not just as technical experts or skilled labour but appreciate their intangible knowledge, manifested through their products in design collaborations, disrupting the power hierarchies observed in the current model. The research thus explores how craftsmanship and the position of artisans engaging in community-based craft activities can be re-contextualized and valued in the present system. Methodology This is achieved through an investigation of the interaction of textile artisans, practising in communities belonging to a traditional knowledge transfer system and a formal design education system, and its impact on their creative outputs, further forming their creative and cultural identities. The research takes an interpretivist paradigm, through a case study of Somaiya Kala Vidya, a design school for artisans in Gujarat, India. Qualitative methods like ethnographic fieldwork; analysis of crafts practised by the students in the institute; semi-structured interviews of alumni and current students; participant observation of both groups of artisans; examination of artefacts in museums, material culture in local shops and retail, providing an empirical context for the study. Conclusions The research concluded that the new developments in design education for artisans have a positive impact on their confidence in seeing themselves as unique powerful creatives in the industry. Through a socio-cultural model, the 2 research highlights the creative and individualistic aptitudes of the artisans capable of

encouraging a shift in craft research. The dichotomies present between traditional and modern, in craft collaborations can be addressed if only the architects of the practice have the social agency to translate, shape, and transform their craft. With access to a broader array of craft and locations, this model can be used as an educational and sensitisation tool for both the artisans to unpack meanings and for designers and urban design students to gain a deeper understanding.
Joseph (2022) Paradigm Shifts in Recordkeeping Responsibilities conducted a study that examined the international standards for records management with specific reference to ISO 15489, which has been widely accepted as an influential and critical set of principles and guidelines that ensure records management systems are fit for purpose. The research questions were what are the techniques used in record keeping and what standards are in place for records keeping. The study adopted a qualitative research design and employed a case study method. Data were collected through content analysis of organizational records management practices and relevant documents, though the sample size was not specified. The instrument used was a content analysis checklist which was applied to identify techniques and standards referenced in practice. Data were analyzed thematically to draw patterns and meaning across the content. The findings revealed that new techniques for records keeping exist and that there are gradual changes from traditional manual methods of record keeping to modern digital and electronic methods. The study further revealed that ISO 15489 provides a global benchmark for effective records management and that organizations that align their practices to this standard are more likely to maintain reliable, accessible, and authentic records. It concluded that strict adherence to ISO 15489 should be emphasized and recommended that existing techniques of record keeping be continuously improved by adopting new and emerging techniques to meet changing organizational and technological needs.

Harris (2022) introduced that records retention in the organization ensures regulatory compliance in the organization. The research question used were what are Big bucket Categories? How many records series does your current retention schedule have? The methodology used was quantitative, the method used was survey, and the instrument used was questionnaire. The findings of the study reported that organization large records series were not retained properly, the categories that made up of big bucket were not up to the records retention standards. The study recommended that for organization's records categories to be retained properly big bucket theory must be adopted and the organizations records series should be selected based on Records retention standards.

A study conducted by Oloniruha and Momohjimoh (2022), An Assessment of Students' Records Management System and Preservation as a Determinant for the Effective Retrieval and Dissemination of Information in Tertiary Institutions in Kogi State, Nigeria. The objective of the study is to determine how students' records are organised, preserved, managed, retrieved, and the challenges encountered. The study sample population comprised of 92 selected records management personnel from some randomly selected tertiary institutions in Kogi State, Nigeria. Descriptive survey method using simple random sampling techniques is used for the study; observation and questionnaire are the instrument used for data collection. The major findings of the study revealed: ineffectiveness in student's record management system incompetent

personnel, inadequate infrastructural facilities, constant power failure, minimal ICT facilities and inadequate space and preservation facilities. Based on these findings, the following recommendations were made; effort should be made for provision of standby generator/inverter/Solar energies as an alternative to power supply, training of staff especially on ICTs, digitalization of their records provision of adequate funding, enough infrastructural facilities such as storage facilities including electronic storage devices and adequate preservation apparatus. While RM research emphasizes operational efficiency and financial performance in SMEs, several gaps exist. Few studies explore artisan enterprises, particularly embroidery businesses, and the direct relationship between RM and service delivery metrics such as timeliness, accuracy, and client satisfaction. Additionally, the use of hybrid systems combining digital and traditional records remains underexplored. Addressing these gaps, this study investigates how RM practices among embroidery artisans in Zaria, Kaduna State, affect service delivery and operational efficiency.

From the reviews, it was revealed that records management plays a central role in ensuring accountability, efficiency, and sustainability in small enterprises, including artisan businesses such as embroidery. Scholars emphasize that structured record-keeping enhances operational performance, financial tracking, and compliance, with records ranging from employee documentation and business registration to digital records, customer feedback, and transactional records. Embroiderers generate essential records such as design sketches and patterns for creative consistency, inventory records for material management, and financial records for monitoring income and expenses. They also organize records using systematic methods like alphabetical, numerical, alpha-numeric, chronological, subject-based, and geographical arrangements, though many artisans still rely on informal systems such as notebooks and WhatsApp messages. Digital tools, including social media, email, and analytics platforms, are highlighted as vital for marketing, client engagement, and service delivery, while feedback records and order/payment documentation ensure accuracy and customer satisfaction. However, the literature shows contradictions between ideal structured practices and the informal realities of artisans, with gaps in understanding how creative, client-sourced records are integrated into workflows. More so, none of the reviewed studies focused specifically on records management for service delivery among embroiderers in the North-Western region, particularly in Zaria Local Government, where artisans face challenges such as garment mismatches, wrong dispatches, issuing incorrect garments, and delays in completing embroidery orders. This study therefore identifies both a geographical and literature gap, which it intends to fill.

Methodology

The study adopted a Quantitative Research Methodology utilizing a Cross-sectional Survey Research Design, chosen for its efficiency in facilitating data collection from a large number of subjects at a single point in time, thereby supporting the generalization of findings to broader contexts, promoting objectivity, and providing the necessary precision for investigation. The Target Population consisted of 325 professional Embroiderers operating in Zaria Local Government, Kaduna State, drawn from four key locations: Bakin Kasuwa, Karauka, Tudun Wada, and Kofar Kuyambana. The sample size, initially insufficient at 48, was statistically

determined using the Yamane (1967) formula for finite populations at a 5% margin of error, which yielded a required minimum sample size of 180 respondents (n approx 180). This sample was selected using a Purposive Sampling Technique based on strict inclusion criteria: respondents must be shop owners or master embroiderers responsible for management, and possess a minimum of five (5) years of professional experience. The primary instrument for data collection was a Structured, Self-Developed Questionnaire designed using a 5-point Likert Scale. The instrument's quality was established through face and content validity, ensured by review from a panel of three Vocational Education experts and two experienced Master Embroiderers. Its **r**eliability was confirmed through a pilot test analyzed using the Cronbach's Alpha (alpha) method in the Statistical Package for the Social Sciences (SPSS), with reliability coefficients ranging from 0.755 to 0.897, indicating good internal consistency. Data was coded and analyzed using SPSS, Version 26, where Descriptive Statistics (frequency counts, percentages, and means) were the primary tools used to summarize and analyze the data against an interpretation benchmark of 50%.

Table 1: Types of records generated by Embroiderers in Zaria Local Government, Kaduna State, Nigeria.

This objective sought to identify the types of records generated by Embroiderers in Zaria Local Government. The responses were analyzed and presented in table 1

S/No	Types of Records Generated	Bakin Kasuwa	Karauka	Kofar Kuyambana	TUDUN WADA	TOTAL
		Frq (%)	Frq (%)	Frq (%)	Frq (%)	
1.	Customer records	15(34.1%)	12(27.3%)	6(13.6%)	4(9.1%)	37(83.9%)
2.	Design sketches and Pattern records	6(13.6%)	6(13.6%)	15(34.1%)	6(13.6%)	33(74.8%)
3.	Fabrics and materials inventory records	3(6.8%)	6(13.6%)	0(0%)	0(0%)	9(20.4%)
4.	Financial Statements (income, expenses, taxes) records.	3(6.8%)	0(0%)	3(6.8%)	0(0%)	6(13.6%)
5.	Production schedule and work in progress records	3(6.8%)	3(6.8%)	9(20.5%)	0(0%)	15(34.1)
6.	Employers' records	0(0%)	6(13.6%)	0(0%)	3(6.8%)	9(20.4%)
7.	Business registration and license documents	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)
8.	Digital records (social media, email)	0(0%)	0(0%)	0(0%)	0(0%)	0(0. %)
9.	Customer's feedback and review records.	0(0%)	0(0%)	0(0%)	0(0%)	0(0. %)
10	Order and payment records	0(0%)	0(0%)	0(0%)	0(0.0%)	0(0.0%)

Source: Field Survey, (2025) Benchmark 50%

The above table shows that the most frequently generated records by embroiderers in Zaria Local Government were customer records (83.9%), followed by design sketches and pattern records (74.8%). Moderately practiced record types included production schedules and work-in-progress records (34.1%), fabrics and materials inventory records (20.4%), and employer records (20.4%). The least generated records were financial statements (13.6%), while business registration and license documents (0%), digital records (0%), customer feedback and review records (0%), and order and payment records (0%) were completely absent.

The data indicate that customer records and design sketches dominate as the primary documentation practices among embroiderers, while other forms of record-keeping remain supplementary or neglected. Customer records are essential for tracking clients, maintaining relationships, and ensuring repeat business. Design sketches and pattern records serve as creative archives, enabling consistency, innovation, and replication of embroidery styles. Production schedules and inventory records provide some structure for workflow and materials management, though their limited use suggests that many embroiderers rely on informal systems. Employer records, though present in some cases, highlight minimal attention to staff documentation.

Financial statements, which are critical for monitoring income, expenses, and taxes, are rarely maintained, reflecting weak financial management practices. The complete absence of business registration and license documents underscores the informal nature of embroidery enterprises in Zaria, limiting their access to government support and formal markets. Similarly, the lack of digital records, customer feedback, and order/payment documentation reveals a gap in modern business practices, particularly in leveraging technology for growth and customer engagement.

These results are consistent with the literature. Garcia and Roberts (2021) emphasize that employee records are essential for workforce management, ensuring compliance with labor laws and supporting fair compensation. Yet, the low percentage of employer records in the table suggests that embroiderers in Zaria are not fully adopting this practice, which may expose them to risks in managing staff and freelance artisans.

Similarly, Smith and Lee (2022) highlight the importance of business registration and license documents for legitimacy, regulatory compliance, and client trust. The complete absence of such records in the table corroborates the informal nature of embroidery enterprises in Zaria, limiting their ability to secure larger contracts and professional credibility.
Clark and Harris (2020) stress the growing role of digital records including social media, email, and website analytics in marketing and client engagement. However, the table shows no evidence of digital record-keeping among embroiderers, underscoring a significant gap in modernization and brand visibility. This lack of digital documentation prevents artisans from leveraging online platforms as virtual portfolios or tracking customer behavior for strategic growth.

Taylor and Parker (2022) argue that customer feedback and review records are vital for improving service quality and fostering loyalty. Yet, the absence of such records in the table indicates that embroiderers are not systematically collecting client opinions, which may hinder their ability to adapt to customer preferences and build long-term relationships.
Johnson and Brown (2023) emphasize the importance of order and payment records for managing transactions, ensuring timely delivery, and resolving disputes. The table's finding of 0% adoption in this category highlights a critical weakness in transactional management among embroiderers in Zaria.

Collectively, the literature underscores the importance of diverse records from employee documentation to digital engagement for efficient business management, compliance, and sustainable growth. The table findings corroborate these insights by showing that while embroiderers prioritize traditional records (customers and designs), they neglect modern, financial, and regulatory documentation. This gap reflects both the informal orientation of embroidery enterprises and the urgent need for interventions to strengthen record-keeping practices.

This implies that customer and design records ensure continuity in service delivery and creativity, the neglect of financial, administrative, and digital records poses challenges for sustainability, accountability, and modernization. Training programs in record management, digital literacy, and business registration could help embroiderers transition from informal to formal enterprises. Strengthening documentation practices would not only improve efficiency but also open opportunities for growth, access to credit, and integration into broader markets. the study successfully identified the types of records generated by embroiderers in Zaria LGA, showing that record-keeping is dominated by customer and design documentation, supplemented by limited operational records, and constrained by the absence of modern, financial, and regulatory documentation.

Table 2: Records Generated Organized for Delivery of Service by Embroiderers in Zaria Local Government.
To uncover how are Records Generated Organized for Delivery of Service by Embroiderers in Zaria Local Government.

	LOCATIONS					
S/No		**BAKIN KASUWA**	**KARAUKA**	**KOFAR KUYAMBANA**	**TUDUN WADA**	
	Organization of records by embroiderers	**Frq (%)**	**Frq (%)**	**Frq (%)**	**Frq (%)**	**TOTAL**
1	Base on alphabetical order	9(20.5%)	6(13.6%)	9(20.5%)	6(13.6%)	30(68.2%)
2	Base on numerical order	6(3.6%)	7(15.9%)	5(11.4%)	7(15.9%)	25(46.8)
3	Base on alpha/numeric order	9(20.5%)	2(4.5%)	0(0%)	0(0%)	11(25.0%)
4	Base on chronological method	6(13.6%)	0(0%)	0(0%)	0(0%)	6(13.6%)
5	Base on subject of the records	2(6.5%)	0(0%)	6(13.6%)	0(0%)	8(20.1%)
6	Base on geographical location of the records	0(0%)	1(2.8%)	2(4.5%)	1(2.8%)	4(10.1%)
7	Base on the embroiderers discretion	3(6.8%)	3(6.8%)	0(0%)	2(4.5%)	8(18.1)

Source: field survey (2025) Benchmark 50%

The above table shows that the most frequently used method of organizing records by embroiderers in Zaria Local Government was alphabetical order (68.2%), followed by numerical order (46.8%). Moderately practiced methods included alpha/numeric order (25.0%), subject-based organization (20.1%), and organization based on embroiderers' discretion (18.1%). The least applied methods were chronological organization (13.6%) and geographical organization (10.1%), both falling well below the 50% benchmark.

The data indicate that alphabetical and numerical organization dominate as the primary methods of record arrangement among embroiderers, reflecting a preference for simple, accessible systems that do not require advanced training or technology. Alphabetical order is particularly useful for organizing customer names and design references, while numerical order is often applied to invoices, receipts, or sequential orders.

Alpha/numeric and subject-based organization provide more structured approaches, but their limited use suggests that most embroiderers rely on basic methods rather than formal filing systems. The reliance on discretionary organization (18.1%) highlights the informal nature of record management, where artisans often depend on personal judgment rather than standardized procedures. Chronological and geographical methods, though recognized in record management theory, are rarely used, indicating that embroiderers do not systematically track records by time or location.

These results are consistent with the literature. Onwuchekwa and Ukpong (2023) report that SMEs using structured filing systems and digital tools experience fewer errors and operational delays. The dominance of alphabetical and numerical methods in the table reflects attempts at structured organization, but the absence of digital systems corroborates the literature's observation that many small enterprises still rely on informal methods. Hamid et al. (2023) highlight that accounting software and spreadsheets improve financial tracking and reporting. Yet, the low percentages for numerical and chronological organization in the table suggest that embroiderers in Zaria have not integrated such tools into their record-keeping practices, limiting their ability to manage finances systematically. The literature also notes that artisan businesses often catalog design sketches, client interactions, production schedules, and inventory systematically. While the table shows some adoption of subject-based and alpha/numeric organization, the relatively low percentages confirm that such practices are not widespread among embroiderers in Zaria.

This implies that while alphabetical and numerical organization ensure basic accessibility and continuity in service delivery, the neglect of chronological, subject-based, and digital systems poses challenges for efficiency, accountability, and modernization. Without structured methods, embroiderers risk errors, delays, and lost information, which can undermine customer satisfaction and business growth.

The study successfully identified the methods of record organization used by embroiderers in Zaria LGA, showing that record-keeping is dominated by alphabetical and numerical systems, supplemented by limited operational methods, and constrained by the absence of modern, digital, and standardized organizational practices.

Conclusion

It is concluded that record management practices of Embroiderers in Zaria Local Government, Kaduna State, Nigeria are not seamless in nature. This study provides an overview of the records activities surrounding embroiderers and highlights both strengths and gaps. The findings reveal that the most frequently generated records include customer records for tracking clients and ensuring repeat business, and design sketches and patterns for creative consistency and replication. Moderately practiced records such as production schedules, inventory records, and employee records provide some structure for workflow and workforce compliance, while financial records are rarely maintained. Critical records such as business registration documents, digital records, customer feedback, and order/payment records were completely absent, underscoring the informal orientation of embroidery enterprises. Moreover, embroiderers organize their records using systematic methods to ensure easy retrieval and efficient storage. Common strategies include alphabetical and numerical organization, supplemented by alpha-numeric, chronological, subject-based, and geographical arrangements. However, reliance on discretionary methods reflects informality and inconsistency. These organizational practices improve operational efficiency, accuracy, and embroidery service delivery, but remain limited by the absence of modern digital systems.

The study further shows that while physical storage methods such as folders, cabinets, shelves, and cartons are used to manage sketches, invoices, and contracts, digital options such as cloud storage, email platforms, and specialized embroidery software are not yet adopted. This lack of digital integration prevents embroiderers from leveraging technology for marketing, client engagement, and financial management.

Recommendations

1. Embroiderers should develop standardized templates for each record type. These templates should include designated spaces for customer contact details, design specifications, order deadlines, and progress updates.
2. It is recommended that creating a hybrid classification system that combines these approaches could help. This system could involve assigning each customer a unique alphanumeric code (combining initials and order numbers) that appears on all related documents. Training sessions should be conducted by government and non-profit organizations to teach embroiderers how to implement this system effectively, including proper labeling techniques and cross-referencing methods to connect related records across different schemes.

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RESEARCH PATTERNS OF LIBRARY AND INFORMATION SCIENCE (LIS) SCHOLARS: A CONTENT ANALYSIS OF ONLINE JOURNALS PUBLISHED AT UNIVERSITIES OF NORTHWEST, NIGERIA (2014-2024)

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Abstract:
This study examined the research patterns of Nigerian Library and Information Science (LIS) scholars (2014- 2024). The specific objectives of the study were to: find out the preferred research area of LIS Scholars; determine the predominant research design employed by the scholars; and ascertain the statistical tools employed by the scholars understudy for their data analysis. Using quantitative methodology, a content analysis was carried out on four (4) online journals published in universities of Northwest, Nigeria. Total of 155 articles made up the subject of the study. The data collected was analysed using descriptive statistical tools such as frequency counts, simple percentages, and charts. Findings of the study revealed that the preferred research area of LIS Scholars were information resource management (25.16%) and knowledge management (19.35%); descriptive survey design was predominantly used (60.00%); as quantitative data collection approach was the most frequently used (70.00%) among the scholars understudy. Thus, the study recommended that LIS research should explore other areas and methodology such as software/system analysis, content analysis, bibliometrics, quasi-experimental, and grounded theory.

Keywords: Research Patterns; Library and Information Science; Content Analysis; North-west, Nigeria

Introduction

Research is essential for sustainability of any profession or academic discipline. It is a scientific (well planned) and informal inquiry into a phenomenon, situation or a problem with view of finding the fact about the phenomenon or proffer lasting solution to identified problem. The outcome of research leads to the creation of new knowledge, expansion of the existing ones and decision making process. Despite the fact that all formal research follows a systematic approach to finding solution to identified problem, variations exist in the pattern used by different group of scholars, institutions, or countries. Research pattern is consistent approach or methodology adopted by group of scholars while investigating a phenomenon or topic. This is determined by the preferred research area, methodology used and theories mostly adopted by a group of scholars within a range of time (Liang, Jin, Lu, Wu & Hu, 2016).

Library and Information Science (LIS) is a discipline concerned with information resource management within and outside the library environment. LIS Scholars like their counterpart scholars have their pattern of research which may vary by institutions or

countries. Malik, Jun and Kumar (2020) opined that although similarities exist among scholars conducting research in LIS, patterns differ by country, region or institutions. Generally, LIS scholars employ a wide range of consistent steps, techniques and strategies in their process of data collection, testing hypothesis and making inferences. The prominent research patterns follow by LIS scholars include: survey research design, quantitative approach to data collection, mixed method, case study, bibliometrics and content analysis (Chu, 2015; Togia & Mallan, 2017 & Saeed & Muhammed, 2021).

Statement of Problem

Pattern of research adopted by researchers determines their research success. A vibrant and well defined pattern minimizes bias, errors, and resources; ensure efficient time management and hitch free collection and analysis of data; leading to a reliable research output, which proffer solution to identified problem and/or contribute to existing knowledge. Diversification of research patterns in a particular field of study guarantees an in-depth investigation into a phenomenon; and ensures the sustainability of the profession. Despite this, the study conducted by Malik, Jun and Kumar (2020) uncovered that LIS scholars in Pakistan maintained similar approaches to investigate phenomena. The researcher observed that there is dearth of literature on the pattern of research methodology adopted by LIS scholars in Nigeria. It is on this premise that this study is set to investigate the research pattern of LIS scholars, as published in online journals of Library and Information Science in North-West region, Nigeria from 2014 to 2024.

Objectives of the study

The main objective of the study was to examined the research (methodology) patterns adopted by Library and Information Science (LIS) scholars (2014- 2024). The specific objectives of the study were to:

1. find out the preferred research area of the scholars understudy;
2. find out the research approach(es) predominantly used by the LIS scholars;
3. determine the predominant research design employed by the scholars understudy;
4. uncover the research instrument mostly used by the scholars understudy; and
5. ascertain the statistical tools employed by the scholars understudy for their data analysis.

Literature Review

Research pattern is determined by predominantly research area, research approach(es) commonly used; research design mostly adopted; and preferred keywords used by a group of scholars over a period of time.

Preferred Research Area among LIS Scholars

Research area predominantly used by a group of scholars can be used to predict their research pattern. Research area implies related topics from which a researcher can select a topic or questions to be investigated. Ahmad (2019) opined that LIS is a dynamic profession which does not rely on conventional research areas and methodologies; rather, its research areas evolve over time. the result of Scientometrics study conducted by Hans (2020) titled "evaluation of research topic in LIS between 1996 to 2019" divulged that though there was progressive decrease in research in librarianship, information science areas such as bibliometrics, remained unchanged, as areas like information retrieval dominated the research in LIS within the period of the study. The findings further reported that Internet and social media related topics gain popularity.

In agreement to the findings of Hans, A bibliometrics study conducted by Mokhtarpour and Akbar (2021) reported that "information retrieval" and "information seeking" were two prevalent research areas of LIS scholars between 1990 and 2016. The study further divulged that studies in the areas of "Internet" and "World Wide Web" attract the attention of many LIS scholars. In yet another bibliometrics study conducted in Arab World by Siddique, et. al (2023) reported that areas predominantly used by LIS scholars in Arabian States were "Information seeking", "Information Literacy", "Information Seeking Behaviour", "Knowledge Management" and "Bibliometrics". The study further revealed that "Internet" and "open Access" areas gain popularity in recent time. In related study carried out in African Continent by Amusan and Adeyoyin (2022) titled "Publication patterns in African Journal of Libraries and Information Science from 2009 to 2019" uncovered that indexing and serial collection management were no longer explored by LIS Scholars in Africa within the period range.

Research Approach predominantly used by LIS Scholars

Research approach involves collection of either numerical (quantitative), non-numerical (qualitative) data or combination of both (mixed method) (Creswell, 2018). The predominantly used approach can be used to determine the pattern of research adopted by a group of scholars. The findings of a study conducted in India by Pandey, et al (2023) reported that though many research methodologies were used in LIS research in India, qualitative approach was the mostly preferred, using survey, correlational and experimental designs. In agreement to the findings of Pandey, et al, the result of a content analysis carried out by Ferran-Ferrer, et al (2017) uncovered that 45.69% of the articles studied adopted quantitative approach; 44.67% used qualitative approach; as 9.64% used mixed method approach.

The study carried out by Togia and Mallari (2017) reported that majority of the empirical research articles in LIS employed quantitative approach, however, the use of qualitative approach increases. The study further reported that mixed method had not gained enough recognition in LIS research. In support of the Togia and Mallari, the findings of the study conducted in U.S by Hamid titled "Evolution of LIS research" revealed that 90.47% of the articles studies adopted quantitative approach; 5.76% used qualitative approach while 3.06 used mixed method. Contrary to above findings, the result of an analysis conducted by Saeed and Muhammed (2021) titled "Library and Information Science Research in Pakistan" revealed that 50.62% adopted qualitative approach, while 49.38% used quantitative method. The result of a content analysis conducted by Chu (2015) using 1162 research articles in three (3) LIS Journals revealed that using multiple method in single study (mixed method) and qualitative approach were the common practice in LIS.

Research Design Predominantly Employed by LIS Scholars

Research design frequently used by a group of scholars can determine the pattern they adopt. Creswell (2018) defined research design as the sum total plan and strategies used to guide a researcher in carrying out a reliable research. Research design encompasses all steps taken toward a successful research. These consist of research approach, objectives of the study, population, and sampling, method of data collection and technique of data analysis. The result of content analysis conducted by Togia and Malliari, (2017); and Varvelin and Vokkari (2022) reported that the predominantly used research design in LIS were survey,

Scientometrics, system and software analysis, content analysis, bibliometrics, experimental, grounded theory, arthrography and case study.

The study of Togia and Malliari, (2017) revealed that survey design was the predominantly used in LIS related research, which account for over 37% of all research articles published in the field, followed by software analysis and design which account for 26.8% of the total articles while content analysis account by 9.6% of the total articles published in LIS. The result of content analysis conducted by Luo and McKinney (2015) titled "JAL in past decade" reported that survey and content analysis were two most frequently used research designs adopted by LIS scholars in the journal from 2004 to 2013. The result of an analysis conducted by Lund and Wang (2021) titled "An analysis of research method utilized top LIS journals (1980-2019)" reported that there was high decline in the use of case study strategy and an increase in diversification of strategies.

Research instrument mostly used by LIS Scholars

Research instrument is a device or tools used to measure quantity under observation, and/or perform specific tasks. In research, instrument is used for data collection, measurement and analysis. The type of instrument mostly used by a group of scholars determines their pattern of research. The study conducted in Pakistan by Saeed and Muhammad (2021) titled "Library and Information Science Research in Pakistan" uncovered that 437 out of 1128 article studied adopted questionnaire as instrument for data collection. This implies that over 38% of all journal articles studied used questionnaire in collection of quantitative data, while others used different tools including interview, bibliometrics, content analysis and qualitative approaches.

The findings of a content analysis conducted by Chu (2015) on research method in LIS revealed that out of 367 journal articles studied, 51 (13.90%) adopted questionnaire as instrument for data collection, 49 (13.35%) used interview, as 52 (14.16%) used content analysis, 141 (38.42%) used theoretical approach, 31 (8.96%) used bibliometrics, 18 (4.90%) used transaction log analysis, 11 (3.00%) used observation, 9 (2.45%) adopted webometrics, while 7 (1.91%) used historical method, other instrument recorded insignificant percentage.

Statistical tools employed by LIS Scholars for data analysis

Data collected in the course of the research is meaningless unless it is analysed. Quantitative data collected during the research is analyzed using different statistical tools. The statistical tools frequently use by a group of scholars determines their research pattern. The findings of the study conducted by Zhang, et al (2017) reported that the type of statistical method used depend upon the area of research in LIS, as studies in "information retrieval" use parametric and non-parametric statistics, studies in "information use" adopt correction and regression methods. Venkatachalam, et al (nd) reported that LIS research adopted statistical tools such as correlation, regression, parametric test such as "Z" test, "T" test, ANOVA, and non-parametric test such as chi square test.

In the study carried out by Zhang, et al (2016) titled "A study of statistical methods used in six journals of library and information science" revealed that t-test, ANOVA test, and X^2 test were the three most frequently used statistical tools in quantitative research published in the six journals. In a data analysis carried out by Ahsan and Kanwal (2021) using a result

of a content analysis both qualitative and quantitative research articles, published by Pakistani authors in national and international journal from 2001 to 2016. The result revealed that majority of the articled used descriptive statistical tools such as frequency counts, charts, and simple percentages to analyze their data, while few used inferential statistics.

Methodology

The study adopted quantitative approach, using content analysis as the research method. The study evaluates and analyses four (4) online journals published at universities in North-West, Nigeria namely: Bayero University Journal of Library and Information Science, Kano (BJLIS); Khalifa Isyaka Rabi'u University International Journal of Contemporary Librarianship, Kano; Umaru Musa Yar'adua University, Katsina (UMYU) Journal of Library and Information Science; and Samaru Journal of Information Studies A B U, Zaria . Total of 155 articles published between the years 2014 and 2024 made up the subject of the study. The title of each article, and methodology were evaluated to identify the research areas covered, research approaches adopted, research designs used, instruments used for data collection, and statistical tools employed for data analysis. The data extracted was coded and analysed using descriptive statistical tools such as frequency counts, simple percentages, and charts.

Data Presentation and Analysis

The data collected from 155 articles published (2014-2024) in the online journal studied, was analysed and presented in line with the research objectives raised during the study, as in table 1-7. The data contains in each table were further elaborated as below:

Table 1: Demography Information of Online Journals Published in North-west, Nigeria

S/N	Journal Title	University	Number of Articles available online	Percentages
1	Bayero University Journal of Library and Information Science (BJOLIS)	Bayero University, Kano	22	14.19%
2	KHAIRUM International Journal of Contemporary Librarianship	Khalifa Isyaku Rabi'u University, Kano	7	4.52%
2	Umaru Musa Yar'adua University (UMYU) Journal of Library and Information Science	Umaru Musa Yar'aduwa University, Katsina	14	9.03%
4	Samaru Journal of Information Studies	Ahmadu Bello University, Zaria	112	72.26%
		Total	**155**	100%

Source: Online Journals websites

Table 1 above shows that 112(72.26%) of the article studied were published in Samaru Journal of Information Studies of Department of Library and Information Science, ABU, Zaria; 22 representing 14.19% of the articles were published in Bayero University Journal of Library and Information Science (BJOLIS). The table also indicates that 14(9.03%) of the articles were published in Umaru Musa Yar'adua Journal of Library and Information; as only 7 representing 4.52% of the articles were published in KHAIRUN International Journal of Contemporary Librarianship. This signifies that most of the articles were published in Samaru Journal, while KHAIRUN Journals has least articles. This disparity is due to the fact that Samaru Journal has been present online since 2014 while the remaining are either new journals or partially inactive.

Table 2: Research Areas preferred by LIS Scholars

Research Area	Frequency	Percentage (%)
Information Resource Management	39	25.16
Knowledge Management	30	19.35
User Information Behaviour	23	14.84
Library Administration	23	14.84
Bibliometrics	0	0.00
Record Management & Archive Administration	3	1.94
Internet & Social Media	7	4.52
Information & Communication Technology	7	4.52
Information Literacy/User Education	10	6.45
Information Retrieval	13	8.39
Total	**155**	**100**

From table 2 above, it can be deduced that 39(25.16%) of the articles studied explored information resource management area; 30(19.35%) studied knowledge management area; 23(14.84%) each explored user information behaviour and library administration. From least end, none of the articles explored bibliometrics area and only 3(1.94%) of the articles explored the area of record management and archive administration. The chart also revealed that 7(4.52%) of the articles explored the area of social media and Information and Communication Technologies (ICTs) respectively; as 10(6.45%) of the articles explored the area of information literacy/user education. This revealed that areas of Information resource management and knowledge management were predominantly research areas explored by LIS scholars in North-western region of Nigeria, while research areas such as bibliometrics and record and archive administration were barren areas.

Table 3: **Research Approach predominantly used by the LIS scholars**

Research Approach	Frequency	Percentage (%)
Quantitative	107	69.03
Qualitative	32	20.65
Mixed method	16	10.32
Total	155	100

Table. 2 above revealed that 107(69.03%) of the articles published (2014-2024) in four online journals understudy adopted quantitative data collection approach; 32(20.65%) used qualitative approach; while only 16(10.32%) used mixed method. This signifies that LIS scholars predominantly used quantitative data collection approach.

Table 4: Research design predominantly used by LIS scholars

Research Design	Frequency	%
Descriptive Survey	93	60.00%
Exploratory	13	8.39%
Pure Experimental	0	0.00%
Triangulation	13	8.39%
Quasi-experimental	0	0.00%
Case study	0	0.00%
Content analysis	12	7.74%
Bibliometrics	0	0.00%
System & Software Analysis	0	0.00%
Grounded Theory	12	7.74%
Ehnography	0	0.00%
Phenomenology	0	0.00%
Expost-factor	12	7.74%
Total	**155**	**100**

Table 4 above revealed that 93(60.00%) of the articles published in four online LIS Journals employed descriptive research design; exploratory, and triangulation, designs recorded 13(8.39%) each. While content analysis, grounded theory and ex-post factor designs recorded 12(7.74%) each. None of the articles adopted pure-experimental, quasi-experimental, case study, bibliometrics, system and software analysis, ethnography or phenomenology designs. This suggests that descriptive survey is predominantly used by LIS scholars in North-western region of Nigeria.

Table 5: Research Instrument mostly used by LIS Scholars

Instrument	Frequency	Percentage (%)
Questionnaire	93	60.00
Interview	31	20.00
Questionnaire and Interview	16	10.32
Observation	0	0.00
Others	15	9.68
Total	**155**	**100**

Table 6 above shows that 93(60.00%) of the articles published in online journals of LIS published at universities of Northwest, Nigeria (2014-2024) adopted questionnaire as instrument for data collection; 31(20.00%) used interview, 16(10.32%) of the articles used

the combination of both (questionnaire and interview) and 15(9.68%) of the articles used different instruments. None of the article used observation.

Table 7: Statistical Tools employed by LIS Scholars

Statistical tool	Frequency	Percentage (%)
Simple percentage	39	25.16
Frequency count	33	21.29
ANOVA	8	5.16
Kanda-tua	8	5.16
Standard deviation	17	10.97
mean	17	10.97
Thematic analysis	33	21.29
Total	**155**	**100**

From table 7 above, it can be inferred that 39(25.16%) of the articles published in the online journals (2014-2024) analyzed their data using simple percentage; 33(21.29%) of the articles used frequency counts and thematic data analysis respectively. 17(10.97%) used mean and standard deviation respectively. Only 8(5.16%) of the articles used ANOVA and Kenda-tua tools respectively. Use of simple percentage and other descriptive statistics is connected to the fact that majority of the articles adopted descriptive survey. None of the study used either correlational survey or experimental designs, where hypothesis is tested using inferential statistical tools.

Discussion of Findings

Finding of the study revealed that research areas of Information resource management and knowledge management were predominantly areas explored by LIS scholars in North-Western region of Nigeria, while research areas such as bibliometrics and record and archive administration were barren areas. This is contrary to the findings of the study conducted by Hans (2020) and that of Mokhtarpour and Akbar (2021) which reported that "information retrieval" and "information seeking" were two commonly research areas used by LIS scholars, while research areas such as bibliometrics, remained unchanged.

The study also revealed that quantitative data collection approach is the most frequently used among LIS Scholar; while qualitative approach is moderatly used. This concur with the finding of the study carried out by Togia and Mallari (2017), which reported that majority of the empirical research articles in LIS employed quantitative approach, nevertheless, this study contradics the report of the studies conducted by Pandey, et al (2023); and Ferrer, et al (2017), which revealed that qualitative data approach is the most widely used approach among LIS Scholars in India.

The study revealed that descriptive survey design was the prevalent research design among LIS scholars, while research design such as exploratory, triangulation, content analysis, grounded theory and ex-post factor designs were partly used by the scholars. This agreed with the part of findings of the study conducted by Togia and Malliari, (2017); and Varvelin and Vokkari (2022) which reported that survey research design was the predominantly used design among LIS scholars; and disagreed with other part of their

findings which revealed that Scientometrics, system and software analysis, content analysis, bibliometrics, experimental, grounded theory, arthrography and case study were partially used by LIS Scholars.

The study uncovered that questionnaires and interviews were the research instrument mostly used LIS scholars. This concur with the findings of Saeed and Muhammad (2021); and Chu (2015) who uncovered that questionnaire and interview were the most frequently used research instruments among Pakistani and Chines LIS scholars.

The study further revealed that simple percentage, frequency counts and thematic data analysis were prevalently used by LIS scholars. This is contrary to the findings of the study carried out by Zhang, et al (2017); Venkatachalam, et al (nd); and Zhang, et al (2016) who reported that LIS research adopted statistical tools such as correlation, regression, parametric test such as "Z" test, "T" test, ANOVA, and non-parametric test such as chi square test. However, the study agrees with the findings of the study conducted by Ahsan and Kanwal (2021) which uncovered that majority of the articled used descriptive statistical tools such as frequency counts, charts, and simple percentages to analyze their data, while few used inferential statistics.

Conclusion

Success of any research depends on the methodology or pattern adopted in collection and analysis of data. A clear and well-defined pattern leads to a reliable research output, which proffer solution to identified problem and/or contribute to existing knowledge. Variations exist in the pattern used by different group of scholars, institutions, or countries. Sticking to a particular pattern, approach, design, or methodology leads to partial or shallow investigation of the phenomenon, which leads to gap in knowledge.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. LIS scholars in Nigeria should explore other research designs such as software/system analysis, content analysis, bibliometrics, quasi-experimental, and grounded theory.
2. LIS scholars in Nigeria should explore areas of library automation, as there are few research conducted in that area.
3. Research conducted on a phenomenon using quantitative approach should be repeated using qualitative approach for an in-depth understanding of the phenomenon.
4. More empirical research should be carried out by Nigerian LIS scholars in current trends such as applications of Artificial Intelligence (AI), virtual reality and blockchain technology in information services.

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PERCEPTION OF RESIDENTS IN VULNERABLE AREAS AFFECTED BY SECURITY CHALLENGES ON INTELLIGENT INFORMATION SHARING WITH SECURITY AGENTS IN ZAMFARA STATE, NIGERIA

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ABSTRACT

This study investigated the Perception of Residents in Vulnerable Areas Affected by Security Challenges on Intelligent Information Sharing in Zamfara State, Nigeria. Three Objectives guided the study which includes: finding out the perception of people residing in vulnerable areas affected by security challenges on intelligent information sharing in Zamfara State, identifying the reasons for sharing intelligent and uncovering the challenges faced by people residing in vulnerable areas affected by security challenges on intelligent information Sharing in Zamfara State. Quantitative research methodology and descriptive survey was used. The population comprised of 1009 people residing in this vulnerable areas affected by security challenges in which 101of the population was drawn as sample size going by the rule of thumb. Questionnaire was the instrument use to collect data. The data collected were presented and analyzed using Frequency distribution table and percentages. The study revealed that majority of the respondents' perceived intelligent information as sharing intelligent information very risky, intelligent information is very good, intelligent information can save lives, sharing intelligent information can lead to progress and disagree with the perception of sharing intelligent information is not useful because it does not have impact; majority of the respondents share intelligent information to take action, for security reasons and for the protection of their community; majority of the respondents face the challenge of fear of being implicated, afraid of being kidnapped and assassinated and fear of being arrested. The study recommended that all the stakeholders to come together and find a lasting solution to this menace; people should share information for various reasons that will stop the banditry activities insurgency in the state; government should encourage people to share information and assure the safety of life and properties. The study concluded that the issue of security is everyone's' business therefore all the residents must collaborate with the security agents to share relevant information for the safety of the entire community.

KEYWORDS: Information sharing, Perception, Vulnerable, security challenges, intelligent information

INTRODUCTION

Insecurity has been one of the major problems terrorizing the corporate existence of Nigeria and affecting the supposed development in many facets of human endeavour within the states of the federation. Insecurity ranges from Boko Haram to Niger Delta militancy to IPOB and to rustling, kidnapping, Protests and school children abduction. Security is everybody's business, irrespective of his social, economic or political status. From the social angle, the people must provide the government/security agencies with all the relevant information regarding any suspicious personality or movement in their domain. While those with financial capability have to contribute the little they can afford as part of their social responsibility towards provision of security in the state.

Intelligent information in fight against insecurity plays a critical role in strengthening Nigeria's National security against potential future attacks. Specifically, intelligent will help enable the nation to identify potential threats, share information more readily, provide mechanisms to protect the Nation, and develop response capabilities. Intelligent information offers great possibilities for the welfare, health and safety of people.

Information can also be seen as a strategic resource for virtually every person or group of persons in organizations or establishments, whether public or private and information is valued as much as human resources, financial resources and material and plant resources, becoming the fourth factor of production. Societies that do not have access to the information they need will sooner or later be left behind in terms of cultural and technological development. Information is an important tool used in the realization of any objective or goal set by individuals, thus it remains the lifeblood of any individual or organization. It is a valuable resource required in any society; thus acquiring and using information are critical and important activities (Ekoja 2010).

Information sharing is considered one of the most representative tools to change the function and structure of country. It allows decision makers to manage information from several sources at the same time. It has the potential to support the transformation of organizational structures and to provide communication channels between multiple organizations working in different locations. Traditionally, people distribute information along a well-defined, top-down channel. Today, due to the spread of social technologies, information can be shared with great ease and almost no effort. This ease of information sharing makes it very difficult to assure that all information travels along the defined channels. Thus, many organizations that already use social technologies to a wider extend are facing the problem of how to adopt their policies to the new nature of information sharing (Caffrey, 2009).

Information sharing describes the exchange of data between various organizations, people and technologies. There are several types of information sharing:

- Information shared by individuals (such as a video shared on Facebook or YouTube)
- Information shared by organizations (such as the RSS feed of an online weather report)
- Information shared between firmware/software (such as the IP addresses of available network nodes or the availability of disk space)

The advent of Internet and social media platforms has facilitated the huge growth in global information sharing. When it comes to personal information however, no matter how

easy it is to port the actual data, there are laws in most countries prohibiting the sharing of personal data without explicit permission being granted. In the U.S. and Europe, it is a criminal offense to share any personal data about anyone without such explicit permission. There is plenty of other information sharing that does not fall under the law and information sharing is increasing as more networks and organizations connect and information becomes easier to share across the internet.

The Nigerian security issues are getting more deteriorating despite the government effort and security agencies to end the menace. This is due to the emergence of many violence, cattle rustlers, herdsmen, Niger delta terrors, cases of kidnapping and other criminal offences across the nation (Elaigwu, 2005). Despite the fact that defense/security falls under the EXCLUSIVE list in the Nigeria's constitution, namely, solely in the hands of the federal government, the states and local governments have to come in, in whatever capacity to assist the federal government in discharging that responsibility in order to have effective security for the lives and property of the citizenry.

Nigeria's police have the primary responsibility for internal security in the country. The federal government controls the police force, which has thousands of personnel (Nigerian Constitution (2014). Section 4 of the Police Act provides that police are responsible for the preservation of law and order, the protection of life and property, and the due enforcement of all laws and regulations with which they are directly charged within the country (Republic of Nigeria 2014). Despite the police mandate as lead agency for internal security, the government has also deployed the military to respond to this internal crisis because of its severity and the lack of police capacity to adequately respond. This has been justified by the assertion that the police are not sufficiently equipped to effectively respond to the threats (Ayoola, 2013).

Zamfara state government has judiciously and religiously tried in many capacities within its limit to assist the security agencies in the state. The Zamfara state government has donated more than 350 vehicles to the security agencies in the state, motor circles, etc. This is with the exception of financial and other necessary assistance it has been providing to our security agencies in many different times (Salis, 2018).

Despite all these efforts by the state, local governments and police, they heavily rely on the intelligent information provided to them by the people especially from the vulnerable areas like Yankuzo to enable them act. It is based on this background that the study investigated the perception of residents of vulnerable areas affected by security challenges on intelligent information sharing with security agents in Zamfara state, Nigeria.

Research Questions

The research addressed the following key research questions:

1. What are the perceptions of residents of vulnerable areas affected by security challenges on intelligent information sharing with security agents in Zamfara State?
2. What are the reasons for sharing intelligent information with security agents by residents of vulnerable areas affected by security challenges in Zamfara State?
3. What are the challenges faced by residents of vulnerable areas affected by security challenges on intelligent information sharing with security agents in Zamfara State?

Literature Review

This section reviews literature base on the concepts related to the study

Concept of Information Sharing

Information sharing in library and information science encompasses both conceptual frameworks and practical implementations aimed at enhancing accessibility, transparency, and collaboration within the profession.

Pilerot (2012), demonstrates that definitions of information sharing vary significantly, reflecting notions of what is shared, who shares, and where the sharing occurs. Drawing on philosophical concepts such as open texture, language games, and meaning holism, the study identifies six theoretical frameworks that can act as building blocks toward an integrated understanding of information sharing activities in LIS (Pilerot, 2012). This perspective focus on nature of information being shared, person who share the information and the time during which the information is shared. Talja (2004) similarly explores types and levels of information sharing such as strategic, paradigmatic, directive, and social sharing, highlighting that sharing may occur through consulting, peer influence, and collaborative information behaviours across academic communities (Talja, 2004). This is in agreement with the Pilerot in terms of nature and types of the information being shared.

As regards practical dynamics and policy of information sharing, Agboke and Ekeng (2025) reflect on how resource sharing, once limited to traditional library methods, has evolved into dynamic, technology-facilitated practices. Tools like email, WhatsApp, and other social media platforms are now leveraged to support resource sharing, reflecting the changing landscape in which libraries operate (Agboke & Ekeng, 2025). This also extends to information sharing in different context of information business.

Information sharing is very vital in any social setting. This is particularly important in tackling security challenges in vulnerable areas. In Lagos, communities have deployed WordPress-powered tools such as anonymous reporting portals, heatmap dashboards, and push notifications, enabling residents to share real-time security threat data with police and neighbourhood patrols—this digital interface has significantly enhanced actionable intelligence sharing in vulnerable areas (Itelemedia, 2023-2024). This implies that, in Lagos, digital platforms such as WordPress-based portals now allow residents to share real-time intelligence with police.

Kenya's expansion of the Nyumba Kumi initiative features Regional and County Security and Intelligence Committees (RSICs/CSICs), which institutionalize grassroots intelligence flows by integrating village elders and local leaders into formal security reporting and threat-prevention frameworks (Kenya strategy, 2024). By this, Kenya has formalized grassroots intelligence flows through Nyumba Kumi and RSIC/CSIC structures.

At Nigeria's 2025 CARSPO conference, a roadmap was developed for intelligence-led policing, emphasizing modernized, citizen-integrated strategies—such as community partnerships, digital surveillance integration, and regional intelligence collaboration—to enable two-way information sharing between residents and security forces (AllAfrica, 2025). This roadmap emphasizes inclusive, intelligence-led policing with citizen participation

Together, these studies indicate that LIS scholarship on information sharing spans theoretical, behavioral, and policy-oriented dimensions. Conceptual work emphasizes definitional clarity, while empirical studies reveal structural and technological enablers—and barriers—to information sharing. Larger publishers and higher-ranked journals appear more capable of institutionalizing formal data-sharing policies. Meanwhile, evolving technologies are

empowering libraries to collaborate beyond traditional boundaries. Furthermore, information sharing extends to intelligent information where technology is now used to collaborate with communities in tackling security challenges in areas such as Kenya and Lagos.

Concept of Insecurity

The concept of insecurity would be best understood by first presenting the concept of security. In the view of Akin (2008) security refers to "the situation that exists as a result of the establishment of measures for the protection of persons, information and property against hostile persons, influences and actions". It is the existence of conditions within which people in a society can go about their normal daily activities without any threats to their lives or properties. It embraces all measures designed to protect and safeguard the citizenry and the resources of individuals, groups, businesses and the nation against sabotage or violent occurrence (Ogunleye, et al, 2011). According to Igbuzor (2011) it demands safety from chronic threats and protection from harmful disruption.

Security however, can be described as stability and continuity of livelihood (stable and steady income), predictability of daily life (knowing what to expect), protection from crime (feeling safe), and freedom from psychological harm (safety or protection from emotional stress which results from the assurance or knowing that one is wanted, accepted, loved and protected in one's community or neighbourhood and by people around. It focuses on emotional and psychological sense of belonging to a social group which can offer one protection). This description structured the concept of security into four dimensions. However, these dimensions can be weaved together to give a composite definition of security as the protection against all forms of harm whether physical, economic or psychological. It is generally argued however that security is not the absence of threats or security issues, but the ability to rise to the challenges posed by these threats with expediency and expertise.

Insecurity on the other hand, is the antithesis of security. However, because of the very many ways in which insecurity affects human life and existence, the concept of insecurity has usually been ascribed different interpretations in association with the various ways which it affects individuals. Some of the common descriptors of insecurity include: want of safety; danger; hazard; uncertainty; want of confidence; doubtful; inadequately guarded or protected; lacking stability; troubled; lack of protection; and unsafe, to mention a few. All of these have been used by different people to define the concept of insecurity. These different descriptors, however, run into a common reference to a state of vulnerability to harm and loss of life, property or livelihood. Beland (2005) defined insecurity as "the state of fear or anxiety stemming from a concrete or alleged lack of protection." It refers to lack or inadequate freedom from danger. This definition reflects physical insecurity which is the most visible form of insecurity, and it feeds into many other forms of insecurity such as economic security and social security.

Two views are of essence to this research. These are (1) Insecurity as the state of being open or subject to danger or threat of danger, where danger is the condition of being susceptible to harm or injury, and (2) Insecurity as the state of being exposed to risk or anxiety, where anxiety is a vague unpleasant emotion that is experienced in anticipation of some misfortune. A major point about insecurity implied in these definitions is that those affected by insecurity are not only uncertain or unaware of what would happen but they are

also not able to stop it or protect themselves when it happens. It is in this view that we would describe insecurity in this paper as: 'not knowing, a lack of control, and inability to take defensive action against forces that portend harm or danger to an individual or group, or what make them vunerable'. 'Vunerability' is the situation that we do not know and we cannot face or anticipate. It is also something we may know would happen but we are not able to face it. Insecurity as a result of criminal activities individually or corporately creates insecurity and breach of the peace that are likely to or indeed affect legitimate social and economic activities in the country (Akintokunbo, 2011). This problem has the damaging consequence of giving the signal to the rest of the international community that Nigeria is not a safe and secure place and as such not suitable for economic Investment and activities. Little wonder or no wonder, investors particularly foreign, are leaving the shore of Nigeria for other African countries with relative peace. This has the tendency of rubbishing the so-called transformation agenda of President Goodluck Jonathan and making the expected gains from Foreign Direct Investment (FDI) a mirage.

According to Omoyibo and Akpomera (2013), security is a concept that is prior to the state, and the state exists in order to provide that concept. Security is the prime responsibility of the state (Thomas Hobbes, 1996). The 1999 Constitution of the Federal Republic of Nigeria specifically states that "The security and welfare of the people shall be the primary purpose of government". Unfortunately, government on this constitutional responsibility has failed to provide a secured and safe environment for lives, properties and the conduct of business and economic activities. The alarming level of insecurity in Nigeria has fuelled the crime rate and terrorist attacks in different parts of the country, leaving unpalatable consequences for the nation's economy and its growth.

Perception of People on Intelligent Information Sharing

Acquiring information and knowledge demand many resources. Nevertheless (or maybe as a result), people often share data, content, knowledge, and code. In fact, some identify the act of sharing information as an attribute of humanity itself (Dunbar, 2006). Sharing information is performed regularly, even spontaneously, via formal and informal channels. Information is typically shared face-to-face, in departmental meetings, written reports, telephone conversations, water-cooler meetings, and other traditional forms. It seems that sharing occurs uniquely with information, in ways not replicated with other goods or services. People don't tend to share their possessions, but they do tend to share and expect sharing of information and knowledge.

Information sharing is considered one of the most representative tools to change the function and structure of country. It allows decision makers to manage information from several sources at the same time. It has the potential to support the transformation of organizational structures and to provide communication channels between multiple organizations working in different locations. Traditionally, people distribute information along a well-defined, top-down channel. Today, due to the spread of social technologies, information can be shared with great ease and almost no effort. This ease of information sharing makes it very difficult to assure that all information travels along the defined channels. Thus, many organisations that already use social technologies to a wider extend are facing the problem of how to adopt their policies to the new nature of information sharing (Caffrey, 2009).

Information sharing is defined as the act of providing a helpful answer to a request for information. Thus, sharing is different from plain posting of information in 'broadcast' mode. Sharing is responsive. It depends on the kindness of peers, friends, or complete strangers or on some intangible reward structure. Since sharing is done mainly by copying and not by a market mechanism involving the transfer of money in exchange for exclusive access to information or expertise, it tends to form a market structure similar to that of public goods. The problem of sharing may stem from the medium used rather than from the willingness to share (Dixon, 2000). People may be naturally willing to share information as suggested by Constant et al. (1994; 1996) but the effort of using technology to do so may be too great, or the reward may not be apparent due to lack of feedback from the database or from the recipient.

Reasons for Sharing Intelligent Information

Information sharing is a key to delivering better, more efficient services that are coordinated around the needs of the individual. It is essential to enable early intervention and preventative work, for safeguarding and promoting welfare and for wider public protection. Information sharing is a vital element in improving outcomes for all. Any decision to delay sharing information with an appropriate agency where a child or young person is at risk of, or is suffering, abuse or neglect must be taken cautiously and only in circumstances where the increased risk to the safety or welfare of the child or young person clearly outweighs the benefits of sharing information. You must be able to justify your decision. You must record the decision not to immediately share information, along with your reasons and any advice you have received.

The goal of sharing information is to provide information to others, either proactively or upon request, such that the information has an impact on another person's (or persons') image of the world, i.e., it changes the person's image of the world, and creates a shared, or mutually compatible working, understanding of the world (Berger 2007.) Information sharing includes providing information, confirming the information has been received, and confirming that the information is jointly understood. Information sharing is an important component of information behavior. It is an essential activity in all collaborative work, and helps to bind groups and communities together (e.g., Davenport & Hall 2002.) When working together group, or team, members must continually provide information to others and to some degree mutually understand and use information others provide. When information is not effectively shared, collaborative group work fails.

People often share stories, news, and information with the people around them. We forward online articles to our friends, share stories with our co-workers at the water cooler, and pass along rumors to our neighbors. Such social transmission has been going on for thousands of years, and the advent of social technologies like texting, Facebook, and other social media sites has only made it faster and easier to share content with others. According to Jonah (2005), the author of a new study published in *Psychological Science*, a journal of the Association for Psychological Science, the sharing of stories or information may be driven in part by arousal. When people are physiologically aroused, whether due to emotional stimuli or otherwise, the autonomic nervous is activated, which then boosts social transmission. Simply put, evoking certain emotions can help increase the chance a message is shared. In the study, Berger suggests that feeling fearful, angry, or amused drives people to

share news and information. These types of emotions are characterized by high arousal and action, as opposed to emotions like sadness or contentment, which are characterized by low arousal or inaction.

According to a study conducted by psychologists at UCLA (2017), listed the primary reason people share information as.

Information: We convey useful information to others. We forward informative emails to our closed one when we think that might help them. So, useful information is one of the reasons behind our sharing but this is a trivial motive.

People share to entertain others: Study suggests that people are regularly attuned to how the things they're seeing will be useful and interesting, not just to themselves, but also to other people," "We always seem to be on the lookout for who else will find this helpful, amusing or interesting, and our brain data are showing evidence of that." When we first consume a piece of content, one of the primary thoughts we have is, "Will others find this interesting?" We may not directly ask ourselves this question, but it's something we subconsciously consider.

People share to define themselves: People love to be understood. We like for others to know where we stand on issues, personal convictions, interests, and dislikes. Often, we share content in order to define ourselves. Even more importantly, people share idealistic images of what they want to be. The thing about social media is that it allows users to portray whatever they want.

People share to persuade: Many people share content in order to persuade others to believe what they believe. This has been on full display over the past year and a half as America has gone through a particularly heated political season. Millions of people have shared billions of articles explaining their political beliefs, denouncing opposing beliefs, and trying to convince people to agree with them. It rarely works, but it's interesting to note that this is a huge underlying factor when it comes to important topics.

People share because others share: The fifth reason why people share is that others share. This may sound redundant, but it's true. We live in a world where much of life takes place via social media. If you aren't sharing things, then nobody really knows you're there. Some people don't like to share, but they feel like it's the only way to remain visible. This type of sharing is the shallowest and is largely unpredictable.

People Share When They Feel a Connection: One of the more common reasons behind why people share is that they feel some sort of emotional connection. Everyone has their own emotional triggers, but the average person feels inclined to share a piece of content when they feel anger, shock, awe, humor, sadness, etc. When people feel an emotional connection, they often feel compelled to share those emotions with their peers. Generally speaking, this type of sharing behavior takes place immediately after consuming the content. The longer the gap between the emotional reaction and the opportunity to share, the less likely it is that someone will do so.

Safety reasons: Some share information to alert their family and friends about the current happenings and how to stay safe. They share information to everybody they can get in touch with so as to minimize the security threats**.**

Challenges faced on Intelligent Information Sharing

No matter where you live in the world, people are faced with a number of challenges when it comes to information sharing. The Commission of the European Communities has identified these challenges throughout the European Union (2015): spreading of untrue

information, fear of death, it can make you to become suspicious, information sharing can implicate you, information sharing can lead to kidnapping, fear of arrest.

Lilly (2001) says the cry of "fake news" has become commonplace and consumer confidence in even traditional media outlets has been significantly eroded. Unfortunately, false, misleading, or confusing online content can harm your brand's reputation, upset even loyal customers and can dissuade people from even considering the purchase of your products or services.

Methodology

The quantitative research method and descriptive survey design was used to conduct the study. This is because, Osuala 2005 opined that a survey research, studies both large and small populations, and by selecting and studying samples chosen from the population, it helps to discover the relative incidence, distribution and interrelations of variables. Survey method was used in this study because the researchers deal with different people in Yankuzo Area Development Council. The population of the study comprised the residents of the affected Villages in Yankuzo Area Development Council, Tsafe Local Government Area. This is because the researchers are having access to the area through the research assistants. The population is presented in table;

Population Table

S/N	Villages	Population
1	Asaula	155
2	Bukebuke	230
3	Mandaba	273
4	Gurbi	351
	Total	**1009**

Source: Tsafe Local Government Secretariat (2024)

The sample size for this study was 101 base on the rule of the thumb formular that suggested the use of 10% if the population is more than one thousand. Yount (2006) said a population from 101-1000, 10% will be taken out of the population as the sample size of the study. Going by the rules, 10% of 1009 will be 101.

Self-developed questionnaire translated in to Hausa language which is the predominant language in the study area was the instrument used to collect data in this study. Frequency and percentages was the procedure used to collect data.

Result and Discussion

This section presented the data collected, do the analysis and discuss the findings.

The researchers distributed 101 copies of questionnaires to the respondents. All the 101 copies were returned duly completed representing 100% turn over. This high response was achieved as a result of cooperation and assistant received from research assistants being part of the affected area. Details are presented in the table below:

Table 2: Response Rate

Questionnaires	Frequency (F)	Percentage (%)
Copies of Questionnaires Distributed	101	100
Copies of Questionnaires Filled and Returned	101	100%

This section presents the findings in terms of the gender distribution of the respondents and years of residing in the area by the respondents.

Table 3: Gender Distribution

Gender	Frequency (F)	Percentage (%)
Male	80	79.2
Female	21	20.8
Total	**101**	**100**

Table 3 shows the gender wise distribution of study population, it is observed that majority of the study population 80 (79.2%) belongs to male population while 21(21%) of the respondents belongs to male population. It can be concluded that majority of the study sample are male population only. Onsogo (2007) opines that gender equality means giving men and women, girls and boys, the same opportunities to participate fully in the development of their societies and achieve self-fulfillment. The male population was more because it the time of research, the researcher encounters the male populace more than the female populace. This could be attributed to the religious and cultural factors of the area.

Table 4: Year of Residing Distribution of Respondents

Year	Frequency (F)	Percentage (%)
1-5 years	1	1.0
6-10 years	5	5.0
11-15 years	26	25.7
16 years and above	69	68.3
Total	**101**	**100**

Table 4 shows the years of residing of the study population. It is observed that majority of the respondents that resides from 16 years and above with 69 (68.3%), next is 11-15 years with 26 (25.7%), 6-10 years 5 (5.0%) and 1-5 years 1 (1.0%). From the table above, it can be observed that respondents that resides 16 years and above were more because the researcher encounter them more than others.

Result and Discussion

This section analyzed and discussed the data collected for the purpose of answering the research questions raised in the study. Frequency tables and percentages used to compute and present the results.

Perception of people on intelligent information

The section identifies the perception of people on intelligent information. In order to achieve this, a list of items was outlined for the respondents to tick the level of agreement with each statement.

Table 5 Perception of residents on intelligent information sharing

S/N	ITEMS	Strongly agree		Agree		Not Agree		Undecided	
		F	%	F	%	F	%	F	%
1	Sharing intelligent information is very risky	64	63.4%	14	13.9%	23	22.8%	0	0%
2	Sharing intelligent information can lead to my death	22	21.8%	43	42.6%	31	30.7%	5	5.0%
3	Sharing intelligent information can save lives	56	55.4%	44	43.6%	0	0%	1	1.0%
4	Sharing intelligent information is very good	80	79.2%	20	19.8%	1	1.0%	0	0%
5	Sharing intelligent information can reduce insurgency and kidnapping	49	48.5%	40	39.6%	11	10.9%	1	1.0%
6	Sharing intelligent information is not useful because it does not have impact	21	20.8%	10	9.9%	69	68.3%	1	1.0%
7	Sharing intelligent information can lead to progress	43	42.6%	52	51.5%	2	2.0%	4	4.0%

Table 5 shows Sharing intelligent information is very risky 64 (63.4%) strongly agree, 14 (13.9%) agree, 23 (22.8%) not agree, 0 (0%) undecided, Sharing intelligent information can lead to my death 22(21.8%) strongly agree, 43 (42.6%) agree, 31 (30.7%) not agree, 5 (5. %) undecided, Sharing intelligent information can save lives 56 (55.4%) strongly agree, 44(43.6%) agree, 0(0%) not agree, 1(1.0%) undecided, Sharing intelligent information is very good 80(79.2%) strongly agree, 20(19.8%) agree, 1(1.0%) not agree, 0(0%) undecided, Sharing intelligent information can reduce insurgency and kidnapping 49(4(8.5%) strongly agree, 40(39.6) agree, 11(10.9) not agree, 1(1.0) undecided, Sharing intelligent information is not useful because it does not have impact 21(20.8) strongly agree, 10(9.9) agree, 69(68.3) not agree, 1(1.0) undecided, Sharing intelligent information can lead to progress 43(42.6) strongly agree, 52(51.5) agree, 2(2.0) not agree, 4(4.0). undecided.

From the discussion, it is observed that majority of the respondents perceived intelligent information as very risky, intelligent information is very good, intelligent information can save lives, sharing intelligent information can lead to progress and disagree with the perception of sharing intelligent information is not useful because it does not have impact. These findings are in line with findings of Dixon, 2000, Dunbar, 2006 and Caffrey, 2009 in their respective studies as presented in the literature review.

Reasons for sharing Intelligent Information

This section presents analysis on the reasons why people share intelligent information. In order to achieve that, list of reasons were highlighted for the respondent to choose from.

Table 6: Reasons for Sharing Intelligent Information

S/N	ITEMS	Frequency	Percentage
1	People share to take action	60	30.2%
2	People share to define themselves	2	1.0%
3	People share to stay connected	1	.5%
4	People share to persuade	5	2.5%
5	People share because others share	5	2.5%
6	People Share When They Feel a Connection	6	3.0%
7	Security reasons	98	49.2%
8	People share for the protection of their community	22	11.1%
	Total	**199**	**100.0%**

Table 6 shows People share to take action 60 (30.2%), People share to define themselves 2 (1.0%), People share to stay connected 1 (.5%), People share to persuade 5 (2.5%), People share because others share 5 (2.5%), People Share when they feel a connection 6 (3.0%), security reasons 98 (49.2%), People share for the protection of their community 22(11.1%). From the table above, it is observed that majority of the respondents share intelligent information to take action, for security reasons and for the protection of their community.

From the discussion, it is observed that majority of the respondents share intelligent information for security reasons, others share intelligent information for action to be taken while some respondents agreed that intelligent information is shared to protect the community they live in so that they can save lives. Similarly, some respondents believed that one of the reason people share intelligent information is to make them relevant in the society. These finding is aligning with the findings of Jonah 2005 and UCLA 2017 in their respective studies as presented in the literature review. They discovered that people share information to persuade, to connect, to be relevant, to protect their community among other reasons.

Challenges faced in Intelligent Information Sharing

One of the objectives of this research is to identify the challenges in information sharing among people residing in vulnerable area of insecurity, in order to obtain the answers, the respondents were asked to indicate their challenges in intelligent information sharing as outline in the table below:

Table 7: Challenges faced in Intelligent Information Sharing

S/N	Challenges	F	%
1.	Spreading of untrue information	6	5.9%
2.	Fear of death	5	5.0%
3.	Fear of becoming a suspect	6	5.9%
4.	Information sharing can implicate you	32	31.7%
5.	Fear of being kidnapped and or assassinated	32	31.7%
6.	Fear of being arrested	20	19.8%

Table 7 shows Spreading of untrue information 6 (5.9%), Fear of death 5 (5.0%), It can make you to become suspect 6 (5.9%), Information sharing can implicate you 32 (31.7%), Information sharing can lead to the kidnapping and assassination 32 (31.7%), Fear of arrest 20 (19.8%). From the table above, it is observed that majority of the respondents face the challenge that information sharing can implicate you, information sharing can lead to kidnapping and assassination and fear of arrest.

From the discussion, it is observed that majority of the respondents share shared their challenge for sharing intelligent information for the fear of being implicated, arrested, and killed or being suspected to be part of the crime syndicates. Similarly, some respondents believed that sharing untrue information regarding the insecurity as another challenge that stop or prevent them from sharing intelligent information. These finding is in consonance with the findings of European Union 2015 where they found that sharing untrue information may likely lead to death and arrest. Lilly 2001 also found that fake news sharing are challenge to information sharing.

Conclusion

Insecurity has been one of the major problems terrorizing the corporate existence of Nigeria and scuttling the supposed development in many facets of human endeavour across the states of the federation. There is virtually no Nigerian state that has not been disturbed by one of these monsters. Security is everybody's business, irrespective of his social, economic or political status. From the social angle, the people must provide the government/security agencies with all the relevant information regarding any suspicious personality or movement in their domain. While those with financial capability have to

contribute the little they can afford as part of their social responsibility towards provision of security in the state.

Recommendations

Arising from the findings of this study, the following recommendations are made:

1. The Zamfara state and Tsafe Local Governments in collaboration with the security agents should create awareness via mass and social media to the populace regarding the benefit of intelligent information sharing. This will give the residents a positive perspective and attitude in sharing the information with the security.
2. The district and village heads of Yankuzo ADC should create awareness to the residents on the reasons for sharing intelligent information. This will make the populace share information not to make relevance or to stay connected but for the protection of their community.
3. The security agents should bring the residents of Yankuzo ADC closer so that the fear of being arrested, suspected, killed or being kidnapped will go away from their minds. This will give them free atmosphere to share relevant information timely to the security agents and will lead to the protection and security of the areas.

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WHATSAPP STICKERS AND EMOJIS USAGES AMONG STUDENTS IN THE UNIVERSITY OF ILORIN, KWARA STATE, NIGERIA

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Abstract
In recent years, the emergence of digital communication has been marked by the unprecedented use of visual elements such as WhatsApp stickers and emojis among students. In view of this, this study investigated the extent of usage of WhatsApp stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria. A survey research design was adopted for this study using Google questionnaire to collect data from the respondents. A stratified sampling technique was used to select five faculties that represented the population of this study. A total of 325 respondents represented the sample for this study. In terms of frequency of usage, findings revealed that religious stickers and body parts emojis were mostly used among students. It further revealed diverse reasons for using stickers and emojis such as adding humor, conveying emotions, and illustrating points among others. However, no significant gender difference was found in the perceived benefits of stickers and emojis. The results of this study has shown that the use of WhatsApp stickers and emojis has come to stay as an integral component of online communication among students. Therefore, WhatsApp and other messaging platforms should continue to develop and expand their sticker and emoji libraries to meet the evolving needs of users.

Keywords: WhatsApp, Stickers, Emojis, Usage, Student

Introduction

The emergence of digital communication has been marked by the gradual integration of visual elements such as stickers and emojis to enhance the expression of emotions and convey distinct meanings in text-based interactions. However, before the widespread adoption of emojis, a simpler and more impactful form of visual communication existed, known as emoticons. Emoticons, which are combinations of keyboard characters were used to represent facial expressions and emotions (Hassan, 2018). They served as precursors to the colorful and diverse emojis that are now commonly used in our daily conversations (Streets, 2023). However, emojis have been well embraced due to the diverse ways they can be used to relay feelings and emotions on messaging platforms as technology evolves (Prada et al., 2018). Therefore, emojis can be viewed as pictorial icons representing a wide range of emotions, objects, and symbols (Novak et al., 2015). They have now become integral to online communication, especially on social media platforms (Sampietro, 2020).

WhatsApp, a popular social media platform has revolutionized the way people connect with others. One of the key features that has contributed to this transformation is the introduction of stickers. Stickers can be defined as "illustrations or animations of characters, expressive

images to which words or phrases are sometimes attached to communicate emotions, reactions, and sentiments in chats"(Konrad et al., 2020). They have provided a new dimension to communication, allowing users to express themselves more visually and engagingly. For instance, WhatsApp has created a library of stickers comprising a variety of images ranging from cute animals to funny memes among others to cater to the diverse needs of users. Also, users are allowed to create their custom stickers, for the sake of personalization and creativity of conversations (Lopez, 2024).

As WhatsApp continues to evolve and innovate, stickers and emojis have remained a key feature that enhances the way users express themselves in their day-to-day online communication; and its use has become increasingly prevalent among university students in Higher Education Institutions (HEIs). The unprecedented use of stickers and emojis, especially among students can be adduced to reasons such as breaking communicative strains that characterize formal contexts, relaying serious events such as violent demonstrations, gaining attention; averting errors that could occur in writing, supporting a text message, sending greetings to loved ones during festive occasions and vacations among others (Chukaokeke & Obiamalu, 2021; Zhou et al., 2017).

Despite the popularity of the use of stickers and emojis among students in HEIs in Nigeria, there is a dearth of studies in this area. There is, therefore, an urgent need to investigate the extent of the use of WhatsApp stickers and emojis among University students in the Nigerian environment. This study is significant because it would provide empirical evidence on the use of WhatsApp stickers and emojis among students in HEIs in Nigeria. In addition, this study would contribute to the growing body of literature on the impact of stickers and emojis on among university students in the Nigerian environment.
In view of this, this study intends to assess the extent of the use of WhatsApp stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria.

Statement of Problem

Undoubtedly, the role of stickers and emojis in improving digital communication has led to its wide adoption among students. Despite the widespread use of these visual elements, very few studies have examined the extent of the use of stickers and emojis among students in their daily interactions. Therefore, the dearth of empirical studies in this area is a significant gap that drives the urgent need to undertake this research. In view of this, this study intends to examine the extent of the use of WhatsApp stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria.

Research Questions

The following research questions were derived from the objectives earlier stated

i. What is the frequency of usage of WhatsApp stickers among students at the University Ilorin, Kwara State, Nigeria?

ii. What is the frequency of usage of WhatsApp emojis among students at the University Ilorin, Kwara State, Nigeria?

iii. What are the reasons for using WhatsApp stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria?

iv. What are the perceived benefits of WhatsApp Stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria?

Hypothesis

The below hypothesis was tested at 0.01 significant level

i. There is no significant gender difference in the perceived benefits of WhatsApp stickers and emojis among male and female students at the University of Ilorin, Kwara State, Nigeria.

Literature Review

Globally, researchers have examined the use of WhatsApp stickers and emojis among students from varying perspectives, however there are still very few empirical studies in the Nigerian context.

Brief Account of the Operations of WhatsApp Messenger

WhatsApp is an instant messaging application that has gained tremendous popularity among smartphone users globally, especially among youths due to the diverse functionalities it offers. Due to its popularity, it brought about several innovations to improve the adoption by users. WhatsApp introduced several features on the app such as grey check mark indicating that a message has been sent from the sender's phone but not received yet on the recipient's phone. Also, a two grey check marks shows that a message has been delivered to the recipient's phone but has not been read yet. Immediately, the recipient's reads the message, the check marks turn blue. At the same time, a time stamp appears next to these check marks revealing the time the message was delivered to the recipient. Another feature introduced by WhatsApp was the option to create and join groups or leave at will. Lately, WhatsApp introduced stickers and emojis to enrich the ways users communicate on the platform. These stickers are in the form of pictures, and images that can be used to express emotions or feelings by anyone in their course of communicating with a person or groups of persons on the platform.

Concept of Stickers

Stickers were first introduced in Japan by an internet company, Naver, in 2011 for line mobile platforms (Wikipedia, 2017). However, due to the usefulness and wide acceptance of these visual elements, most of the messaging platforms incorporated the use of stickers as a means of communication by users. Stickers are used to express self in terms of feelings and emotions (Lee *et al*., 2016). Stickers are also referred to as character-driven illustrations, sometimes used with text to express a person's view on a particular thing (Konrad et al., 2020). Stickers are, therefore, designed in such a way that the character of each differs, and is applicable to be used in both formal and informal settings (Wahyumunika, n.d.).

The importance of stickers in digital communication cannot be undermined due to their strategic and functional uses which include: self-representation, maintenance of social status, impression management, substitute for text to save time, and conveyance of a message in a

concise manner among others (Lee et al., 2016). Also, stickers convey messages that writing cannot convey, brighten interactions, and equally aid in interpreting emotional feelings or facial expressions that cannot be stated verbally (Ochular et al., 2023).
On the whole, stickers are created to satisfy users' emotions and feelings (Saeed et al., 2021).

Concept of WhatsApp Stickers

WhatsApp stickers are visual elements in the form of graphic images, pictures, text, or a combination of text and pictures that are used by users to convey their views, impressions, or opinions on certain issues or events. It is a powerful tool used in communicating in diverse situations. WhatsApp stickers emerged in 2018 and gained popularity in the following year, 2019 by Nigerians, probably due to the expressive and humorous nature of stickers (Chukaokeke and Obiamalu, 2021). WhatsApp has a library of sticker packs ranging from animal characters, mood stickers, and joke stickers among others. It allows users to customize stickers using their pictures as a way of adding humor and fun to conversations on WhatsApp platforms.

Classification of WhatsApp Stickers

WhatsApp stickers have been classified into diverse types as identified in the literature. For instance, Chukaokeke and Obiamalu (2021) classified WhatsApp stickers into three categories as listed below:

i. Pictographic Stickers: These types of stickers are in the form of pictures or images only. They are used based on the context of the specific meaning they are to convey. For instance, a picture that portrays that you are happy, sad, or angry look. It is left for users to choose stickers that best express their emotions.

ii. Orthographic Stickers: These are stickers with word text. They convey direct meanings to users without giving room for misinterpretation. For instance, stickers with words like "Stop", "Smoking is prohibited here", "Beware of dogs" and so on.

iii. Pictographic/Orthographic stickers: These are stickers with a combination of text and pictures or images. These categories of stickers are designed in such a way that the picture used must align with the text or the message conveyed.

Classification of Stickers

Classification of Stickers	**Samples of Stickers**
Pictographic Stickers	
Orthographic stickers:	

Pictographic /Orthographic Stickers:	  

Concept of Emojis

Emoji were first introduced in Japan in the 1990's, and the word "emoji" means "picture" (e) + "character" (moji) in Japanese language (Wattention, 2015). According to Kendall (2024) "emojis are standardized computer codes that can be transferred between computers and mobile devices, and translated into predefined images that users can see on their devices". Emojis are designed, like emoticons, however they are richer, more expressive, and more complex (Herring & Dainas, 2017; Lu et al., 2016). They are also more flexible than emoticons; they often appear in clusters (Novak et al., 2015). Emojis are used to covey emotional expression in text-messages (Kelly & Watts, 2015; Lu et al., 2016), replacement for non-verbal cues (Ganster et al., 2012), and mellow the tone and intended interpretation of messages (Kelly & Watts, 2015; Novak et al., 2015).

On the whole, emojis are seen to be used more often than emoticons due to its role in conveying expressions and feelings of diverse types. For instance, they can be used to express positive and negative emotions such as gratitude, love, care, disappointment, frustration among others (Ochular et al., 2023). See Table 1 for examples of WhatsApp emojis and their meanings:

	Table 1: Examples of Whatsapp Emojis and their Meanings	
1	Smiling Face with Smiling Eyes (😊)	It represents happiness and is widely used to express positive emotions.
2	Thumbs Up (👍)	It is used to show approval, agreement, or to express satisfaction.
3	Heart Eyes (😍)	This emoji is often used to express strong affection, admiration, or infatuation.
4	Laughing Face (😂)	It is used to convey humor, amusement, or lightheartedness.
5	Praying Hands (🙏)	It is used to express gratitude, thanks, or to seek blessings.
6	Clapping Hands (👏)	This emoji is used to show appreciation, and admiration, or to celebrate someone's achievement.
7	Thinking Face (🤔)	It is used to express confusion, contemplation, or indecisiveness.
8	Graduation Cap (🎓)	It is used to celebrate graduations, and academic achievements, or to discuss educational milestones.
9	School (🏫)	This emoji is used to represent educational institutions or to discuss school-related topics.
10	Music Note (♪)	A musical emoji is used to represent music, discuss musical preferences, or share excitement about a concert or performance.

11	Sports (⚽, ⛳, 🎾, etc.)	Sports emojis are used to discuss sports events, share excitement about a game, or express support for a favorite team or athlete.
12	Food (🍣, 🍱, 🍗, etc.)	Food emojis represent different types of food and are used to share recipes, discuss cuisines, or express cravings.
13	Travel (✈, 🚆, 🚗,	Travel emojis are related to transportation and are used to discuss trips, share travel experiences, or plan journeys.
14	Nature (🌳, 🏔, 🏝,	Nature emojis representing different aspects of nature are used to share an appreciation for the environment, discuss outdoor activities, or express feelings of peace and tranquility.
15	Celebration (🎉, 🎈, 🎊,)	Celebration emojis are used to celebrate special occasions, birthdays, or to express excitement and joy.

Review of Related Studies on the Use of Stickers of Emojis among Students in HEIs Globally and in Nigeria

Quite a number of studies in the literature have investigated the use of stickers and emojis among students in HEIs globally; and very few studies in the Nigerian environment. Some of these studies are discussed below:

Koska (2023) investigated the extent of the use of emojis, GIFs, and stickers among students in Chennai, Tamil Nadu, India. A cross sectional design type was adopted for this study using a quantitative research method to analyze the data collected. Google forms comprising 21 questions were distributed to the students. Findings revealed that college students in Chennai frequently used emojis in WhatsApp communication. Also, it was discovered that female students used more pictorials than male students in communicating. In a similar vein, Wirza (2019) examined the extent of use of emojis between 20 males and 20 female genders in Indonesia using mixed-method research, The study also used the interview method to determine the reasons for using emojis among the students. Findings revealed no gender difference in terms of intensity of the emoji use, however, there are some differences in the area of selection of emojis between males and females Regardless of the gender, it was reported that emojis were used to strengthen the meaning and interpretation of messages. The study concluded that the use of emoji is considered suitable to be non gender specific because it meets the needs of both gender groups.

In the Nigerian environment, Bamigbola (2022) examined the semiotic basis for the use of emoticons, emojis, and stickers in social media communication. The study examined the extent to which the use of emoticons, emojis, and stickers has influenced social media communication; whether there are issues associated with the use of these visual elements. Data was collected from 50 active social media users who were chosen at random from among undergraduate students at Adekunle Ajasin University in Nigeria. Findings revealed that emoticons, emojis, and stickers are have improved social media communication and has assisted in the interpretation of messages.

In another study, Chukaokeke and Obiamalu (2021) used Grice's conversation implicature theory to identify and characterize the many stickers employed by interactants to

transmit thoughts and sentiments. The study's data consists of WhatsApp discussions among students randomly selected from Nnamdi Azikiwe University. Findings revealed that WhatsApp users utilize stickers to express themselves in terms of communicating ideas to reinforce meanings that words alone cannot express.

The reviewed studies discussed above highlight the importance of stickers and emojis as communication tools in expressing emotions, creating social connections among students.

Theoretical Framework

The most relevant theory for this study is the Uses and Gratification (U&G) theory. U & G theory emerged based on the contributions of several communication theorists. It was coined in the early 1940s by Katz and Blumler (1974). This theory asserts that people use media to gratify their specific needs and wants. UGT theory relies on two principles, the first being that media users are described as active agents who have control over their media consumption, while the second posits that people are aware of their reasons for selecting media options. This theory is anchored on five assumptions that are relevant to social media users as they engage in electronically mediated communications on social network platforms. In line with this theory, social media users' needs are classified into five areas: (i) Cognitive needs: This focuses on the need by students to acquire information and intellectual and academic knowledge on social media platforms. (ii) Affective needs: This has to do with students connecting with friends, family members, and acquaintances on social media platforms to meet their emotional needs. (iii) Personal integrative needs: This relates to students connecting to people on social media who are considered to be of high status and caliber in society to meet their self-esteem needs, personality, and lifestyle. (iv) Social integrative needs: This has to do with students connecting to friends, family members, and other social circles on social media to stay informed on current happenings in the environment. (v) Tension-free needs: Students use social media platforms as a form of relaxation tool, thereby reducing tension, stress, and all forms that are experienced by them.

In relation to social media use, U& G theory is relevant in explaining the reason behind the choice of stickers and emojis by students in electronically mediated online interactions. Also, students exhibit personal control over their use of these stickers and emojis, thereby, determining their suitability in diverse situations and circumstances.

Methodology

The methodology adopted for this study was a descriptive survey research design using a structured and validated questionnaire to collect data. A stratified sampling technique was adopted in the selection of Five Faculties. The selected Faculties are namely: the Faculty of Education, Faculty of Communication and Information Sciences, Faculty of Life Sciences, and Faculty of Management Sciences respectively. These Faculties were selected due to their high population compared to others. In determining the sample size for this study, Krejcie and Morgan (1970) sample size determination table was used to choose the appropriate sample size based on the given population for this study. Therefore, a total of 325 was established as the sample size for this study based on the population size of 21,360. A breakdown of the population of the surveyed area is shown in Table 1.

Table 1: Population Size of the Selected Faculties

Faculty	Population
Education	10,448
Communication and Information Sciences	2,762
Life Sciences	3,896
Management Sciences	4,200
Total	**21, 360**

Data Collection Procedure

A structured questionnaire was designed to elicit responses from the respondents in the study area. The questionnaire was structured into Four Sections. Section A captured the demographic information of the respondents. Section B comprised a checklist of selected commonly used WhatsApp stickers and emojis. Section C comprised items measuring reasons for using stickers and emojis. Section D contained items on perceived benefits of stickers and emojis using a Likert scale type ranging from Strongly Agree to Strongly Disagree. A Google form was used to collect data from the students of the University of Ilorin. It was shared with students through their social media groups in the selected faculties. 310 respondents filled out the Google questionnaire and were returned valid for processing. The collected data were analyzed using descriptive statistics. The rate of return was 95% which is on the high side.

Results and Discussion

Field data collected was analyzed with the aid of Statistical Package for Social Sciences (SPSS) Version 20.0. The results of the data analyzed are presented in the below Tables along with their interpretations.

Demographic Information of Respondents

Table 2: Demographic Attributes of the Respondents

S/N	Demographic Attributes		Frequency	Percentage (%)
1	Gender	Male	191	61.6%
		Female	119	38.4%
		Total	**310**	**100.0%**
2	Age	15 - 19 years	74	23.9%
		20 - 25 years	121	39.0%
		ABV 26 years	115	37.1%
		Total	**310**	**100.0%**
3	Level	100 LEVEL	39	12.6%
		200 LEVEL	62	20.0%
		300 LEVEL	51	16.5%
		400 LEVEL	126	40.6%
		500 LEVEL	32	10.3%
		Total	**310**	**100.0%**

Table 2 shows the demographic attributes of the respondents which reveal a gender distribution of 119(38.4%) were females, while 191(61.6%) were males. The majority of respondents in this study were male students. In terms of age, the majority of respondents

121(39.0%) fall within the age category of 20-25 years, followed by 115(37.1%) above 26 years, and 74(23.9%) 15-19 years. In terms of the level of study, the majority of respondents 126 (40.6%) are in the 400 level, followed by 62(20.0%) 200 level, 51(16.5%) 300 level, 39(12.6%)100 level, and 32(10.3%) 500 level respectively.

Analysis of Research Questions

i. Research Question One: What is the frequency of usage of WhatsApp stickers among students at the University Ilorin, Kwara State, Nigeria?

Table 3: Frequency of Use of Selected WhatsApp Stickers among Students in the University of Ilorin, Kwara State, Nigeria

S/N	Frequency of Use of Whatsapp Stickers	Daily	Occasionally	Rarely	Not at All	Mean	SD
1	Fun Stickers	101 (32.6)	65 (21.0)	144 (65.5)	-	2.86	.880
2	Religious Stickers	136 (43.9)	64 (20.6)	56 (18.1)	54 (17.4)	2.91	1.146
3	Slang and Phrases Stickers	58 (18.7)	94 (30.3)	125 (40.3)	33 (10.6	2.57	.914
4	Stickers showing respect	-	119 (38.4)	166 (51.6)	31 (10.0)	2.28	.636
5	Empathy Stickers	97 (31.3)	55 (17.7)	118 (38.1)	40 (12.9)	2.67	1.052
6	Agreement Stickers	-	-	220 (71.0)	90 (29.0)	1.71	.455
7	Appreciation Stickers	-	158 (51.0)	152 (49.0)	-	2.51	.501
8	Celebrity Stickers	122 (39.4)	62 (20.0)	-	126 (40.6)	2.58	1.360
9	Animated Stickers	-	78 (25.2)	93 (30.0)	139 (44.8)	1.80	.815
10	Congratulatory Stickers	117 (37.7)	74 (23.9)	71 (22.9)	48 (15.5)	2.84	1.097

KEY: 1-1.49= (Very Low), 1.5-2.49= (Low), 2.5-3.49=(High), 3.5-4= (Very High)

The results in Table 3a show that students utilized WhatsApp sticks in varying proportions. For instance, religious stickers had the highest mean score (2.91), followed by Fun stickers(2.86), and Congratulatory stickers (2.84), Empathy stickers (2.67), Celebrity stickers (2.58) among others. Other types of stickers were also utilized by students minimally such as Animated stickers (1.80), Agreement stickers (1.71). This result shows that some categories of stickers were used more often than others, especially those associated with events and entertainment. This finding has revealed that students in the study area utilized WhatsApp stickers in varying proportions. This result supports the findings of past studies on stickers utilized among students in HEIs (Bamigbola, 2022; Chukaokeke and Obiamalu, 2021).

ii. Research Question Two: What is the frequency of usage of selected WhatsApp emojis among students at the University of Ilorin, Kwara State, Nigeria?

Table 4: Frequency of Use of Selected WhatsApp Emojis among Students in the University of Ilorin, Kwara State, Nigeria

Frequency of Use of Selected WhatsApp Emojis among Students							
S/N	**Whatsapp Emojis**	**Daily**	**Occasionally**	**Rarely**	**Not at All**	**Mean**	**SD**
1	Smileys and Emotion Emojis	92	51	130	37	2.64	1.033

		(29.7)	(16.5)	(41.9)	(11.9)		
2	Food Emojis	7 (2.3)	199 (64.2)	50 (16.1)	54 (17.4)	2.51	.803
3	Nature and Weather Emojis	-	31 (10.0)	238 (76.8)	41 (13.2)	1.97	.482
4	Sports and Activity Emojis	89 (28.7)	123 (39.7)	80 (25.8)	18 (5.8)	2.91	.879
5	Animals Emojis	159 (51.3)	115 (37.1)	13 (4.2)	23 (7.4)	3.32	.866
6	Music and Arts Emojis	75 (24.2)	74 (23.9)	37 (11.9)	124 (40.0)	2.32	1.228
7	Celebrations Emojis	-	-	75 (24.2)	235 (75.8)	1.24	.429
8	Clothing and Accessories Emojis	-	103 (33.2)	36 (11.6)	171 (55.2)	1.78	.916
9	Science and Laboratory Emojis	-	-	131 (42.3)	171 (57.7)	1.42	.495
10	Body Parts Emojis	59 (19.0)	219 (68.1)	8 (2.6)	32 (10.3)	2.96	.793

KEY: 1-1.49= (Very Low), 1.5-2.49= (Low), 2.5-3.49=(High), 3.5-4= (Very High)

The result in Table 4 shows that WhatsApp emojis were used in varying proportions. For instance, animal emojis were mostly used by students in the study area with the highest mean score (3.32), followed by Body Parts emojis (2.96), Sports and Activity (2.91), and Smiley and Emotions emoji (2.64) respectively. On the other hand, the following emojis were utilized minimally by students: Science and Laboratory emoji (1.42), Celebrations emoji (1.24), and Clothing and Accessories emojis. **This result implies that students in the study area utilized emojis that are commonly used by WhatsApp users.** This result supports the findings of past studies on emojis utilized among students in HEIs (Bamigbola, 2022; Chukaokeke and Obiamalu, 2021).

iii. Research Question Three: What are the reasons for using WhatsApp stickers and emojis among students at the University of Ilorin, Kwara State, Nigeria?

Table 5: Reasons for Using WhatsApp Stickers and Emojis among Students at the University of Ilorin, Kwara State, Nigeria

	Reasons for Using Whatsapp Stickers and Emojis	**SA F (%)**	**A F (%)**	**D F(%)**	**SD F (%)**	**Mean**	**SD**
1	To add humor to messages.	78 (25.2)	138 (44.5)	94 (30.3)	-	2.95	.744
2	To convey emotions and feelings.	37 (11.9)	112 (36.1)	102 (32.9)	59 (19.0)	2.41	.930
3	To illustrate points or ideas.	133 (42.9)	57 (18.4)	-	120 (38.7)	2.65	1.365
4	To show my true personality.	-	89 (28.7)	115 (37.1)	106 (34.2)	1.95	.792
5	To soften the tune of my messages.	78 (25.2)	60 (19.4)	172 (15.5)	-	2.70	.847
6.	To explain complex ideas.	70 (22.6)	57 (18.4)	57 (18.4)	126 (40.6)	2.23	1.202
7.	To fit into the online culture.	84 (27.1)	163 (52.6)	63 (20.3)	-	3.07	.686

KEY: 1-1.49= (Very Low), 1.5-2.49= (Low), 2.5-3.49=(High), 3.5-4= (Very High)
SA-Strongly Agree, A-Agree, D- Disagree, SD-Strongly Disagree, F- Frequency, %- Percentage

The result in Table 5 shows the diverse reasons for using stickers and emojis among students in the surveyed area. For instance, the majority of the students (3.07) used stickers and emojis to fit into online culture. Other reasons are to add humor to their messages (2.95), soften the tune of messages (2.70), and illustrate points or ideas (2.65) among others. This result depicts that students mostly use stickers and emojis due to their wide acceptance, and also to convey or express their emotions and feelings. This result supports findings of past studies on WhatsApp stickers and emojis among students in HEIs (e.g. Koska, 2023; Bamigbola, 2022).

iv. Research Question Four: What are the Perceived Benefits of Using WhatsApp Stickers and Emojis among Students of the University of Ilorin Kwara State?

Table 6: Perceived Benefits of Using WhatsApp Stickers and Emojis among Students of the University of Ilorin, Kwara State

	Perceived Benefits of WhatsApp Stickers and Emojis	SA F (%)	A F (%)	D F(%)	SD F (%)	Mean	SD
1	Make my conversation more lively and engaging.	184 (59.4)	-	126 (40.6)	-	3.19	.984
2	Help to reduce misunderstanding.	-	182 (58.7)	51 (16.5)	77 (24.8)	2.34	.850
3	Help me build stronger relationships.	22 (7.1)	191 (61.6)	97 (31.3)	-	2.76	.571
4	Enhance my emotional intelligence.	-	-	167 (53.9)	143 (46.1)	1.54	.499
5	Improve my communication efficiency.	40 (12.9)	76 (24.5)	88 (28.4)	106 (34.2)	2.16	1.040
6.	Improve my creativity.	-	102 (32.9)	61 (19.7)	147 (47.4)	1.85	.886
7.	Save my time and effort in typing.	177 (57.1)	91 (29.4)	42 (13.5)	-	3.44	.720
8.	Increase engagement and interaction.	78 (25.2)	33 (10.6)	90 (29.0)	109 (35.2)	2.26	1.184

KEY: 1-1.49= (Very Low), 1.5-2.49= (Low), 2.5-3.49=(High), 3.5-4= (Very High)
SA-Strongly Agree, A-Agree, D- Disagree, SD-Strongly Disagree, F- Frequency, %- Percentage

The result in Table 6 shows the perceived benefits of stickers and emojis to students in the study area in varying degrees The perceived benefit of using stickers and emojis with the highest mean is that it saves time and effort in typing (3.44), makes conversation more lively and engaging (3.19), helps build stronger relationships (2.76) among others. This result implies that stickers and emojis are beneficial to students, although in varying proportions. This finding is in line with past studies on the perceived benefits of stickers and emojis usage among students in HEIs (Ochular et al., 2023; Lee et al., 2016).

Analysis of Research Hypothesis

H1: There is no significant gender difference in the perceived benefits of WhatsApp stickers and emojis among male and female students at the University of Ilorin, Kwara State, Nigeria.

Table 7. Independent T-test Table Showing No Significant Gender Difference in Perceived Information Overload Between Male and Female Students

Gender	N	F	t	Df	Mean Diff	SD	Sig (2 tailed
Males	191	.341	-1.300	308	-.377	2.525	.559
Females	119				-.377	2.421	

Results in Table 7 show no significant differences between males and females in their perceived benefits of the use of WhatsApp stickers and emojis among students at the University of Ilorin. Scores for males indicated (M=-.377, SD=2.525) and Females (F=-.377, SD=2.421); t(308)=.-1.300, P=.559. This suggests that both male and female students experience similar levels of perceived benefits of WhatsApp stickers and emojis. Therefore, the null hypothesis was accepted. This result depicts that gender is not a determining factor in their perceived benefits of WhatsApp stickers and emojis. This result is in line with Wirza (2019) who found that the use of emojis was non-gender specific, but was rather embraced by both gender groups.

Conclusion

This study has demonstrated that WhatsApp stickers and emojis are integral components of online communication among University of Ilorin students. The varying levels of usage and perceived benefits underscore the significance of these visual elements in digital interactions. Therefore, the use of WhatsApp stickers and emojis in online communication has come to stay due to its wide acceptance and popularity among students in HEIs. It has brought to limelight the importance of these visual elements in our day to day online communication, especially among university students. Therefore, as online messaging platforms evolves, the use and application of these visual elements should be prioritized, and improved upon by future designers.

Recommendations

Based on the findings of this study, the following recommendations are hereby made to improve WhatsApp stickers and emojis usage among students in HEIs.

i . Students should give more recognition to the value of stickers and emojis in digital communication and utilize them to improve their frequency of usage; and to facilitate more effective online interactions.

ii. WhatsApp and other messaging platforms should continue to develop and expand their sticker and emoji libraries to meet the evolving needs of users, most especially students, due to their high level of perceived benefits.

iii. Use of whatsApp stickers and emojis are embraced by both gender groups, therefore designers of stickers and emojis should avoid gender bias.

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