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The Role of ICT Facilities in providing Reference Services in Professor Mustapha Abba Library, Federal College of Education Yola, Adamawa State, Nigeria

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Abstract
The study examined the role of Information Communication and Technology facilities in providing reference services to users in Professor Mustapha Abba Library, Federal College of Education Yola, Adamawa State. The objectives of the study are to: find out the availability of ICT facilities that are in the provision of reference services. Find out the ICT facilities that are mostly used in providing reference services, examine the efficiency of the ICT facilities in providing reference services, examine the challenges of ICT facilities in providing reference service and proffer solution to the challenges of ICT facilities in providing reference service. The Research design adopted for this is descriptive research design. The population of the study consist of (20) staff in the Library. The study used census sampling technique. Questionnaire was used as instrument for data collection. The data generated from this study was analyzed using descriptive statistics of mean standard deviation. The study revealed among others that the respondents agreed that The ICT facilities in the library are mostly used for e-referencing in reference service of the library, the respondents agreed that the ICT facilities in the library are effective and efficient in delivery of services in reference service of the library. The study recommends among others that college management should made available of ICT facilities such Internet and other relevant ICTs in the reference service section of the library, Library management should provide ICT facilities which attract library users and encourage utilization of such facilities in service delivery in the library.

Key Words: ICT Facilities, ICTs, Reference Services, Library Users, Library, College of Education.

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Introduction

Information and communication technology (ICT) refers to technologies that enable the electronic capture, processing, storage, and transmission of information in vocal, pictorial, textual, or numeric forms to facilitate interactions between people and machines (Parliament Office of Science & Technology, 2018). It encompasses the acquisition, production, transformation, storage and transfer of data or information electronically. According to Okzor and Madukwe (2019), ICT covers the use of computers and telecommunications for these purposes. UNESCO (2018) defines ICT more broadly as the scientific, technological and engineering disciplines and management techniques used in information handling and processing

The role of ICT in reference and information services has become central to ensuring quality service delivery to users. The convergence of ICTs as a foundation for providing information in the educational sphere and society at large has imposed new demands on libraries to adopt and exploit these technologies in support of their core business (Oketunji, 2018). For instance, academic libraries are increasingly expected to integrate e-services, automated catalogues, virtual reference and document delivery systems. Recent empirical studies underscore the growing importance of librarians' ICT competencies and infrastructure in Nigerian academic libraries. Odunayo and Onanuga (2025) found that Nigerian academic librarians optimized ICT tools for dissemination of COVID-19 information, demonstrating how ICT became indispensable in remote service contexts. Additionally, Umoh and Ebire (2025) reported on the availability and use of ICTs in collection management in south-south Nigerian university libraries, highlighting both progress and persistent infrastructural challenges. Further, Odusanya and Adeyeye (2024) revealed that ICT skills of librarians significantly influence the quality of service delivered in agricultural research libraries, affirming the linkage between technology proficiency and service quality.

These developments indicate that the services of reference librarians in the ICT era are no longer constrained by traditional opening hours or print-only collections. As Igwe (2018) noted, the scope of information resources now includes both printed and electronic formats, and librarians use email, chat, instant messaging and other digital channels to satisfy user needs remotely. However, despite the recognized advantages of ICT in library reference services, many academic libraries, especially in Nigeria, still face significant barriers such as inadequate infrastructure, limited training and weak ICT adoption (see Agboke & Oladokun, 2024). This evolving landscape underscores the necessity of understanding how ICT integration affects reference and information services in academic libraries.

Statement of Problem

In contemporary academic librarianship, the development and availability of information and communication technologies (ICTs) have not only enhanced and expanded the impact of information resources but also placed heightened emphasis on efficient and effective service provision especially within reference services units (Agwuna et al., 2025; Odunayo &

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Onanuga, 2025). The adoption of ICT has facilitated quicker, more timely access to information and enabled the dissemination of materials scattered around the globe. Many academic libraries have adopted ICT-enabled reference services as part of their core operations, recognizing that reference services constitute a critical aspect of academic library functions and directly affect user satisfaction and institutional outcomes (Moruf, 2024).

However, the introduction of ICTs also brings structural and operational challenges. Although ICT tools have transformed how reference services are delivered from chat queries to email consultations and mobile platforms the effective application of these tools remains uneven. For instance, Ifijeh (2020) noted that inadequate skills and knowledge required for effective use of ICT facilities hinder reference service delivery. In the Nigerian context, libraries face chronic issues of poor funding, which limits acquisition and maintenance of ICT facilities (Bhangu, 2019). Recent studies reaffirm these barriers: infrastructural deficits, power and connectivity issues, insufficient training, and weak institutional support continue to impede effective ICT utilization in reference units (Agwuna et al., 2025; Umoh & Ebire, 2025).

Given these realities, the academic library under study appears to experience a gap: while ICT infrastructure may be present or partially present, the reference services unit may not realize the full potential of these tools in delivering timely, high-quality reference services to users. This situation raises the question of how ICT integration or the lack thereof affects reference service provision at the academic library of Federal college of Education. Accordingly, this study seeks to investigate the role of ICT in the provision of reference services at the academic library of FCE, and to identify key factors that facilitate or impede the effective use of ICT in that context.

Research Questions

The following research questions were formulated for the study:

1. What is the availability of ICT facilities that are in the provision of reference services in Professor Mustapha Abba Library, Federal College of Education Yola Adamawa State?
2. What are ICT facilities that are mostly used in providing reference services in Professor Mustapha Abba Library, Federal College of Education Yola Adamawa State?
3. What is the efficiency of the ICT facilities in providing reference services in Professor Mustapha Abba Library, Federal College of Education Yola Adamawa State?
4. What are the challenges of ICT facilities in providing reference service in Professor Mustapha Abba Library, Federal College of Education Yola Adamawa State?
5. What are the solutions to the challenges of ICT facilities in providing reference service in Professor Mustapha Abba Library, Federal College of Education Yola Adamawa State?

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Review of Related Literatures

Information and Communication Technology (ICT) have increasingly become an indispensable tool for development over the past decades and its advantageous effect have been noted particularly in the area of business, education, politics, governance, culture and other aspect of human lives. In tertiary education, ICT have shown great influence particularly in teaching, learning and various scholarly and professional activities provided through communication and access to information (Ozioko, 2018). Libraries are established in all academic learning establishments particularly in tertiary institution for provision of varieties of resources for learning and social development. That means utilization of ICT is an added value to academic library especially in Reference Service Section where information seekers can easily have access to whatever categories of information they are in need. The availability of ICT facilities in academic library entails carrying out functions and services that were previously handled by human labour and through its application, academic library can provide access to unlimited learning resources, information and knowledge at all-time which was not the case before (Elisha, 2018, Eseohe, Simeon, and Ehikioya, 2019). The arrival of ICT have really changed the library environment as it makes use of automation software whose application has seen a great change in library operations and functions from traditionally relaying on human labour to handle core activities technologically. (Antidius, 2018).

According to Osuchukwu, Obuezie, & Ogwuche, (2019), the reason for the use of ICT facilities in academic libraries is to provides timely access to quality information to users from reference materials, books, e-books, journals online, websites and newspapers at any time, from anywhere. Since ICT have a role in advancing operations in almost all the academic libraries especially in reference service section, it is imperative that staff members be equipped with skills needed to handle information, manage and organize the library in a digital environment so as to actualize the innovative opportunities offered by the invention of ICT. Haliso, (2018) examine some of the affecting ICT usage in academic library to include poor and inadequate telecommunication facilities, poor level of computer literacy among others. Another important factor is information explosion. As information increases, the demand for utilizing ICT to handle this information increases. According to Khan, (2018), in the event of information explosion, it is difficult to use traditional library tools like manual catalogue, bibliographies, etc. to handle large quantities of information. This therefore necessitated the need for effective ICT facilities in the reference service units and the entire library.

ICTs enable libraries to locate store, retrieve and disseminate information. ICT tools such as CD-ROM, e-mail are used in libraries for dissemination of information. In addition, digitization of information resources which involves converting print resources to electronic form is also carried out, using ICT. Information and Communication Technology (ICT) includes all Internet-enabled infrastructures that are widely used today for all kinds of knowledge acquisition and networking. It includes all communication devices or applications

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like computer hardware and software, phones, television, projector, radio satellite systems and all services and applications associated with distance learning, video conferencing, etc (Otubelu, 2019). ICT is an essential ingredient needed for any form of integration for development, good practices that are technologically driven for economic, social, political, health, cultural, educational and information worldwide (Ogbomo, 2018, Ajala et al, 2019). Hence, the impact of ICT when used effectively can transform any society and accelerate sustainable development. The real notion of ICT in the library is to ensure free and equal access to information that allows learning and national integration to flourish. This is what the 21st century learning signifies, to advance technology that does not only enhance but responds to societal needs which are needed to manage the societal goals and the national ideologies. Hence, the links between learning in the academic environment with the real world go beyond educational giving (Edinyang, Odey & Gimba, 2020). The principal aim is to transmit the information from the learner to developmental practices both for personal enhancement and national growth. The academic library assesses varied ICT resources for learning and practical values. Importantly, quality education is characterized by effective library which is the reason National University Commission (NUC) and other regulating bodies emphasized its standard and efficient operations. The Federal Government of Nigeria (2013) also maintains that education is tool par excellence for the actualization of national ideals. Thus, when students make effective use of ICT in the libraries, the learning is then integrated in the work force for development and personal enhancement. Therefore, the academic library provides the space to drive the students towards development for literacy, economic, political, social and religious nuances. This work examines the availability and utilization of ICT facilities as well as the challenges the students encounter in assessing ICT in Madonna University Library, Nigeria.

As the world is undergoing a transition from paper to a digital economy libraries are encouraged to take part in this changing scene. In this regard, Dhanavandan, Esmail and Mani, (2019) stated that developing countries are being encouraged to invest in their national information infrastructure so that they can participate in knowledge based development. Development in Information and Communication Technologies (ICTs) has provided libraries with new opportunities to improve their resources and services and have brought many changes in libraries (Mani, 2019).

The types of ICTs in providing Reference Services are: CD-ROMs, networks, online searching, electronic mail, and the internet, Mobile phones, computer as well as computer based Online Public Access Catalogue (OPAC) as the major ICT facilities used in the reference section of the library studied. This mean that most of the digital reference services provided are done through the use of the above mentioned ICT facilities (Ukachi, 2018). Ukachi (2019) revealed that ICT facilities such as Computer, internet and the CD-ROM where the most commonly used facilities in most of academic library while Gama (2019) identified CD-ROM, chat, email, Internet database search,

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photocopier, projector, telephone, word-processing as the types of ICTs used in providing reference and information services in the institutions. The application of these types of ICTs in the provision of reference and information services thus becomes inevitable as it has provided a common platform where users and librarians can meet virtually to share and exchange information; it has also provided additional options through which the library can best meet the demand of its users.

It is however, of great worry to note that most of the literatures on the types of ICT facilities applied to the reference sections of libraries have not explained the step-by-steps or ways reference librarians could follow in applying these facilities to their everyday task. It is however surprising to realize that despite the numerous advantages brought by ICTs upon library services; different types of ICT facilities are still underutilized when compared to what is obtainable in other libraries of advanced nations of the world as reported in various literatures. Gama, (2019), stated Nigerian Libraries and particularly the Bayero University Kano library should see this as a wakeup call to ensuring that all the necessary ICTs are put in place and professional staff with the right competencies are allowed to operated them in order to achieve the objectives of the library and also bring about maximum satisfaction on the part of the users. Katz, (2020) revealed that all the above mention types of ICTs such as CD-ROM, computer, OPAC, internet, electronic mail, Mobile phone devices etc are frequently applied in the provision of reference and information services in the library under study. If properly put to use, the internet facilities can go a long way to boost reference and information services activities in the library.

Katz, (2020) emphasized that, with the internet, ready reference can be performed with even greater speed since information carrying materials can easily be downloaded from numerous site. Some libraries are presently taking advantage of the Web 2.0 and it related component such as the social media to promote library services through the provision of electronic current awareness services, display of new arrivals, answering online reference queries with Whatsapp, Facebook and instant chat messaging; while in other cases, electronic information resources are sent via email services to the users on request. In a different submission, Tufail, A. A. (2019). affirms that some services such as SDI (Selective Dissemination of Information) or Current Awareness Services (CAS) and virtual reference desks, announcements of new acquisitions and other reader advisory services can be made easier through the Internet. Therefore, users can have online interaction with the reference staff/librarian. With the help of ICTs, searching of online databases like AGORA, ERIC, Elsevier, EBSCOHOST, JSTOR, browsing and surfing the Internet through search engines, Meta-search engines and subject directories to supplement library sources have been made easier for the reference librarian.

The development of ICT has brought about a Revolution in the concept of Reference Services in Nigeria. This paper examined the Impact of ICT in the Provision of Reference Services in the Academic Libraries in Nigeria, and also examined the Present State of ICT facilities and

its application in the provision of reference services in the libraries by the library staff both professionals and Para-professionals. Academic Libraries and Information centers plays a very important role as sources of valuable records, which helps to meet the information needs of the library users and society at large. A total population of twenty six (26) librarians comprising of professional and Para-professionals were used, the design used for the study was Survey, questionnaire was used as the instrument for data collection and for the analysis of data, raw figures were converted to percentages and tabulated. The study reveals that libraries provides ICT facilities such as computer, servers, UPS, internet to some an extent but some library staff do not always have interest in using them to provide the necessary reference services to the library patrons. Suggestions have been given to make the service more beneficial by providing trainings and seminars to the library staff.

The efficiency of ICT facilities in Library

Edom, (2018) The available ICT facilities in academic Libraries are mostly relevant and efficient. Information and Communication Technologies (ICT) enhances the development of institutional networks and makes processes and systems more efficient. It enables the reference service workers to do their work faster and better. Reference services began in late nineteenth century, and it defines role of librarian as a provider of information, assistance, and instruction (Bopp and Smith, 2019). These services have not changed. What has changed is how librarians provide these services.

ICT has facilitated access to e- reference resources, Prytherch, (2020) Identified that ICT facilities in academic library are mostly effective and efficient in delivering services to the users, of this contact is premised on the ability of the reference librarian to effectively meet the information need of users which in turn promotes the library and improves its patronage (Lawal, 2018), In enumerating the rationale for traditional and digital references, Ominyi (2019) opined that it should include the assistance of users in making the best selection from the universe of recorded information. In addition, Katz (2019) highlighted that promoting an end product of information sought by the user and teaching people how to find information are other duties of a reference librarian. According to Ozioko (2020), computer is presently the best gift technology has presented to the library to improve it operations and services integrated. While CDROM is a storage device that can hold variety of information including bibliographical databases, full-text journals, newspapers, directories, dictionaries, encyclopedia, archives etc. For him, the Internet is an information super highway that possesses a number of special and general capabilities on reference services. Furthermore, advent of computer technologies has changed the way of searching for information and what to expect from reference services. Jibia, and Mubaraka, (2019) affirmed that the use of computer-based reference services can augment current level of local information resources in developing countries. This can be done through efficient wireless connections to university and research institute libraries to undertake online search of bibliographic databases. Introduction of computer and the Internet in libraries has expanded the role of reference

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beyond the use of mail, telephone or fax machine. In parallel with numerous changes in the profession, reference services have also changed. Nowadays, librarians not only help patrons at reference desk but also in cyberspace. This new type of service is called digital or virtual reference. It has emerged as a result of various factors, including advent and wide use of the Internet and development of software capable of providing synchronous and asynchronous services (Alessia, 2018).

Similarly, ICTs has made it possible for library users to effectively and efficiently retrieve information. Ezeani (2019) noted that the efficient of computer technologies have made it possible to organize, retrieve, provide and access current information in many different formats. The search for information has now assumed a new dimension whereby library users are increasingly becoming more conscious of an individualized approach. Thus, users want personalized access to information without any assistance from reference librarians.

The Challenges of ICTs usage in the Library

Despite the numerous benefits of ICTs, there are also a lot of constraints in the use of these ICTs. Nasiruddin, (2018) revealed numerous challenges such as the inadequacy of ICT facilities, epileptic power supply, poor internet connectivity, issues of awareness, lack of technical knowhow, and most importantly, the inadequacy of funds have constituted an impediments to the smooth application of ICTs to reference services in the library under study. It should be noted that these constitute an impediment to the smooth operation of the reference librarians thus efforts must be made to ensure that necessary facilities are put in place to facilitate their job. The application of ICT to library in general and reference services in particular comes with lots of advantages that cannot be overemphasized as it has brought ease in the provision of reference and information services. However, in spite of these advantages so many reference sections in Nigeria academic libraries cannot boast of having fully functional ICT facilities in their libraries. In some libraries where they are available, lots of factors still pose as threats to its optimal utilization in the area of service delivery. Some of the common challenges are the same as those facing the general application of ICTs to library services however, Ukachi (2018) in a research about threats and challenges facing the utilization of ICTs revealed that respondents to her research rated higher challenges such as inaccessibility to facilities, inadequate number of facilities irregular power supply, inadequacy of skills needed to use the facilities, among others. In the same vein, Gama (2020) also identified challenges such as inconsistent power supply, inadequate ICTs facilities, insufficient space to house the facilities, non interest of users, inadequate ICT skills on the part of the reference librarian, unreliable internet network, and absence of policy among others as the challenges facing the application of ICTs to reference and information services. The implications of not addressing the above mentioned challenges are that other avenues outside the library for satisfying their information needs are sorted after by the users, the information retrieved from some of these avenues are at times erroneous, unverified

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and misleading. The user's decision making ability is affected and the essence for needing such information is defeated.

In a similar situation Mishra and Mishra, (2020) noted that there are challenges in using ICT for provision of Library Services, there is also, a lot of benefits derived through the adoption and use of Information and Communication Technologies (ICTs) in libraries; nevertheless, there are many challenges to be addressed. These include: The acquisition and maintenance of the relevant equipment depends on the availability of fund. Mostly, there is paucity of funds in many libraries in Nigeria thereby, leading to inability to acquire, the necessary ICTs that would enable them connect to the internet, make subscription to various online database and obtain software licenses. Finance is a major source of organizational effectiveness and without it nothing meaningful will be achieved. It should be borne in mind that right from the beginning, computerization of library operations like acquisition and circulation is an expensive venture and a time consuming process (Arua 2019). Igwe, (2019) asserted that funding of Academic libraries in the provision of ICT facilities has been of interest to private organizations. ICT equipment are expensive and the institution find it difficulties in the acquisition of these ICT equipment without support from government and other private organizations.

Solution to the Challenges of ICT in Providing Reference Services

The strategies for enhancing ICTs in provision of reference services includes: adoption of digital reference services, adequate funding, staff training, collaboration and resource sharing and standardization and policies. Udoh-Ilomechine, (2018) highlighted the following as solution to the challenges faced by academic libraries in using ICT for the provision of reference services to the library users:

1. Fund should be provided to libraries on regular basis. All libraries, irrespective of the type, need strong financial support from the government and able organizations.
2. Provision of standards standby generator in the library, to serve the computers and other ICT facilities in case of power outage. In addition to this, the Nigerian government in particular, should strive to permanently solve the challenges confronting the power sector.
3. The librarian must become higher system thinkers and fully equip themselves to work in digital and computer environment.
4. The Nigeria Library Association (NLA) and National Library of Nigeria (NLN) must encourage and ensure that academic libraries acquire ICT tools for effective library operations and information disseminations.
5. Policies that would encourage the deployment and development of ICTs in all institution should be formulated and implemented for the nation's development to be sustained.
6. The government of Nigeria should make library and information services, a part of national development initiatives and plans.

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7. Training and retraining of all categories library staff should be organized on regular basis. The ICT largely depends on ability of staff to operate ICT facilities. The training should include needed skills and techniques for data input into the computer, internet and also using different telecommunication facilities to exchange information.

Reference librarians need to adopt ICTs if they want to achieve the stated goals and objectives of their established Libraries. Nasiruddin and Roknuzzaman, (2019) in their study which revealed that in the face of the effort put in place by the reference librarian towards achieving the specific objectives of their section and the general objectives of the library at large, the study wishes to identify the following as a solution to the challenges facing the said library of the study in term of role of ICT in the provision of reference services to the information seeker/users

Methodology

The Research design adopted for this is descriptive research design. The population of the study consist of (20) staff in Professor Abba Library, F.C.E, Yola. The study used census sampling technique since the population is few and manageable by the researchers therefore, the whole population was used in determining the sample size for the study. Structured questionnaire was used as the instrument for data collection for this research. The questionnaire for this study will be divided into six (5) main sections which comprises of section: A**:** Find out the availability of ICT facilities that are in the provision of reference services in the library. B: Find out the ICT facilities that are mostly used in providing reference services of the library. C: Examine the efficiency of the ICT facilities in providing reference services of the library. D: Provide solution to the challenges of ICT facilities in providing reference service in the library. The data generated from this study was analyzed using descriptive statistics of mean score and standard deviation.

Presentation of Results

Research Question 1: What is the availability of ICTs in providing reference services of the library?

Table 1: Check List on the Availability of ICTs in the Reference Services of the Library (*n=20*)

S/N	ITEM	A	N A	Percentages (%)
1	Computers	√		100
2	MS Word	√		100
3	Internet/web services	√		100
4	E-mail	√		100
5	Audiotapes	√		100
6	E-Journals	√		100
7	Google form	√		100
8	Photocopy machines	√		100

Source: field survey, 2025

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Results presented in Table 1 reports the frequency and percentage scores on the availability of ICTs in the reference service section of the library. On the whole it reveals there are available ICTs in the library which represent 100%

Research Question 2: What are the ICT facilities that are mostly used for in reference service of the library?

Table 2: Mean and Standard Deviation on the ICT Facilities that are Mostly Used for Reference Service of the Library (*N=20*).

S/N	ITEM	Mean	SD	Remark
9	ICT facilities in reference section of the Library are mostly use in delivering services to the users.	3.34	.50	Agreed
10	Applications of ICT facilities make the process of delivering services to the clients easier.	3.71	.69	Agreed
11	Using ICT facilities in service delivery involve long process	3.12	.70	Agreed
12	ICT facilities in reference section of the library are not functioning very well.	2.21	.60	Disagreed
13	The ICT facilities in the library are e-referencing	1.68	.76	Disagreed
14	The ICT facilities in the reference section of the library are properly	3.51	.58	Agreed
	Cluster Mean	**2.928**		**Agreed**

Source: field survey, 2025

Result reported in table 2 reveals the mean and standard deviation on the ICT facilities that are mostly used in reference service of the library. The result reported revealed that the respondents agreed to items 9, 10, 11, 14 and disagreed with item 12 and 13. On the whole, the grand mean for the total response (2.928) shows that the respondents agreed that ICT facilities are mostly used in reference service of the library. The standard deviation scores show homogeneity in the respondents' response (0.50 – 0.76).

Research question Three: What is the efficiency of the ICT facilities in reference service of the library?

Table 3: mean and standard deviation on the efficiency of the ICT facilities in reference service of the library (*N=20*).

S/N	ITEM	Mean	SD	Remark
15	The ICT facilities in the library are effective and efficient in delivery of services.	1.82	.66	Disagreed
16	The efficiency of ICT facilities in the library enables a smooth operation.	2.74	.58	Agreed
17	The efficiency of ICT facilities usually facilitated the operational processes.	3.82	.76	Agreed
18	The ICT facilities are not efficient	2.60	.85	Agreed
19	The efficiency of ICT facilities promotes the reference service unit into performing their services.	3.72	.79	Agreed
	Cluster Mean	**2.94**		**Agreed**

Source: field survey, 2025

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Result reported in table 3 shows the mean and standard deviation on the efficiency of the ICT facilities in reference service of the library. The result reported revealed that the respondents agreed to items 16, 17, 18, 19 and disagreed with item 15. In totality, the grand mean for the total response (2.94) shows that the respondents agreed to the efficiency of the ICT facilities in reference service of the library. The standard deviation scores show homogeneity in the respondents' response (0.58 – 0.85).

Research Question 4: What are the challenges experienced by the users of ICT facilities in reference service of the library?

Table 4: Mean and standard deviation on the challenges experienced by the users of ICT facilities in reference service of the library *(N=20).*

S/N	ITEM	Mean	SD	Remark
20	Users have been experience difficulties in using the ICT facilities in the reference section of the library	3.54	.85	Agreed
21	The ICT facilities have no challenge in term of service delivery to the users.	1.60	.79	Disagreed
22	Users prefer manual service delivery to ICT due to some technical ICT challenge.	2.72	.68	Agreed
23	Some of the ICT challenges experienced by the user, is as the result not having a little computer knowledge.	3.74	.66	Agreed
24	Lack of trained operators is one of the reason users experienced challenges.	2.85	1.03	Agreed
25	Users experience challenges as the result of poor ICT facilities in the library.	2.54	.58	Agreed
26	Lack of ICT policies	3.47	.58	Agreed
27	Poor maintenance culture	1.41	.67	Disagreed
28	Failure of power supply	3.42	.65	Agreed
29	Lack of sufficient financial support	3.38	.51	Agreed
	Cluster Mean	**2.86**		**Agreed**

Source: field survey, 2025

Result reported in table 4 shows the mean and standard deviation on the challenges experienced by the users of ICT facilities in reference service of the library. The result reported revealed that the respondents agreed to items 20, 22, 23, 24, 25, 26, 28, 29 and disagreed with item 21 and 28. On the whole, the grand mean for the total response (2.86) shows that the respondents agreed to the challenges experienced by the users of ICT facilities in reference service of the library. The standard deviation scores show homogeneity in the respondents' response (0.51 – 1.03).

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Research Question 5: What are the solutions to the problems of ICT found in the reference services of the Library?

Table 5: Mean and standard deviation on the solution to the problems of ICT found in the reference services of the Library *(N=20)*.

S/N	ITEM	Mean	SD	Remark
30	ICT facilities in the library need to be updated	3.41	.37	Agreed
31	Modern application software needs to be installed on their computers for effective service delivery.	3.40	.63	Agreed
32	The ICT personnel in the Library, especially reference section need to go for seminars/workshop to update their knowledge	1.44	.60	Disagreed
33	Fund should be provided to library on regular basis.	1.13	.98	Disagreed
34	Provision of standard standby generator in the library as a source of power supply	3.27	.67	Agreed
35	Policies that would encourage the deployment of ICTs in the library should be formulate	1.21	.63	Agreed
	Grand Mean	**2.31**		**Disagreed**

Source: field survey, 2025

Result reported in table 5 shows the mean and standard deviation on the solution to the problems of ICT found in the reference services of the Library. The result reported shows that the respondents agreed to items 30, 31, 34, 35 and disagreed with item 32 and 33. On the whole, the grand mean for the total response (2.31) shows that the respondents disagreed to the solution to the problems of ICT found in the reference services of the Library. The standard deviation scores show heterogeneity in the respondents' response (0.37 – 0.98).

Summary of Findings

Based on the analysis carried out, the following findings emerged;

1. The data reported reveals that computers and others are the ICT that are available in the reference service section of the library
2. The grand mean for the total response (2.928) shows that the respondents agreed that The ICT facilities in the library are mostly used for e-referencing in reference service of the library.
3. The grand mean for the total response (2.94) shows that the respondents agreed that the ICT facilities in the library are effective and efficient in delivery of services in reference service of the library
4. The grand mean for the total response (2.86) shows that the respondents agreed that users have been experienced difficulties in using the ICT facilities in the reference section of the library

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5. The grand mean for the total response (2.31) shows that the respondents disagreed to the solution to the problems that Policies that would encourage the deployment of ICTs in the library should be formulate of ICT found in the Library

Discussion of findings

The data reported reveals that computers and other facilities are the ICT that are available in the reference service section of the library this study aggress with the study of Olatokun (2018) in his study which revealed that there are ICT facilities available in academic libraries include: Computers which include personal computer (PC), laptops, Printers for printing document in the library, Internet for uploading and downloading information, Scanners for electronic conversion of document

The grand mean for the total response (2.928) shows that the respondents agreed that The ICT facilities in the library are mostly used for e-referencing in reference service of the library. The findings of the study collaborate with the study of Gama (2019) in study which identified CD-ROM, chat, email, Internet database search, photocopier, projector, telephone, word-processing as the types of ICTs used in providing reference and information services in the institutions.

The grand mean for the total response (2.94) shows that the respondents agreed that the ICT facilities in the library are effective and efficient in delivery of services in reference service of the library. The outcome of the study also, agrees with the study of Katz, (2020) in his study which revealed that ICTs such as CD-ROM, computer, OPAC, internet, electronic mail, Mobile phone devices etc are frequently applied in the provision of reference and information services in the library under study. If properly put to use, the internet facilities can go a long way to boost reference and information services activities in the library. Also According to Prytherch, (2020) Identified that ICT facilities in academic library are mostly effective and efficient in delivering services to the users,

The grand mean for the total response (2.86) shows that the respondents agreed that Users have been experienced difficulties in using the ICT facilities in the reference section of the library Haliso, (2018) examine some of the affecting ICT usage in academic library to include poor and inadequate telecommunication facilities, poor level of computer literacy among others. Another important factor is information explosion. As information increases, the demand for utilizing ICT to handle this information increases. Also, in study conducted by Ukachi (2018) on threats and challenges facing the utilization of ICTs revealed that respondents to her research rated higher challenges such as inaccessibility to facilities, inadequate number of facilities irregular power supply, inadequacy of skills needed to use the facilities, among others

The grand mean for the total response (2.31) shows that the respondents disagreed to the solution to the problems that Policies that would encourage the deployment of ICTs in the

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library should be formulate of ICT found in the Library. The study disagree with the study of Nasiruddin and Roknuzzaman, (2019) which reveals that in the face of the effort put in place by the reference librarian towards achieving the specific objectives of their section and the general objectives of the library at large, the study identify the following as a solution to the challenges facing the said library of the study in term of role of ICT in the provision of reference services to the information seeker/users such as library under study in particular must seek for ways of incorporating some of these new trends into providing quick, timely and up-to-date reference services to their users also Libraries must have in place an awareness creating mechanism that will acquaint the users with information on the available ICTs in the library as well as their areas of application

Recommendations

Based on the findings and conclusions from the study, it is recommended that:

1. The college management should made available of ICT facilities such Internet and other relevant ICTs in the reference service section of the library
2. Library management should provide ICT facilities which attract library users and encourage utilization of such facilities in service delivery in the library
3. It is recommended that library administrators should acquire ICT facility for The effective and efficient smooth operational processes of the library services in the reference service section of the library
4. The library management should intensify effort and create awareness in the use of library in in terms of ICTs to curtail difficulties that users have been experiencing in the reference section of the library
5. The management of the college should provide more fund in other to acquire new technologies or ICT tools for effective library operations and information disseminations in the area of reference services

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