

Assessment of Digital Reference Resources and Services in Federal University of Technology Library, Minna, Niger State, Nigeria

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Abstract

This study investigated the digital reference resources and services in the Federal University of Technology Library, Minna. The objectives of the study include identifying the types of digital reference resources available and services provided; determining the challenges faced in the process of rendering such services as well as proffering solutions to the identified challenges. The study adopted a descriptive survey research design. The questionnaire and observation checklist were used as data collection instruments. The entire population of twenty-eight (28) academic librarians was used. The data collected were analyzed using descriptive statistics such as frequency counts, percentages, and mean scores. The findings revealed that electronic reference resources such as e-encyclopaedias, e-dictionaries, e-biographical sources, and e-handbooks were not available in the library. Reference services such as reference via the World Wide Web, social media, video conferencing, and collaborative digital reference services (CDRS) were equally not provided in the library. The study, therefore, recommended that Management of the Federal University of Technology Library, Minna should subscribe to active online databases that will enable the use of electronic reference resources and services. The library should adopt the use of technologies to allow the provision of digital reference resources and services such as e-dictionaries, e-bibliographies, reference via the World Wide Web, social media, for their reference service delivery.

Keywords:Digital reference services, Digital reference resources, Academic libraries,

Introduction

University libraries are now more than ever before faced with the challenge of providing timely and accurate information resources and services to a group of unique users with continually evolving information needs. Partly due to technological changes experience especially in educational settings, and the divergent users' background. As such, university libraries are trying to breach this gap by providing innovative services

that will support and strengthen the academic programmes of their institutions of learning. These efforts of university libraries contribute to the total development of its user's community by broadening their intellectual horizons and inculcating in them a constant desire to study and carry out research. Among these services is the digital reference service, which is only possible if there are relevant digital reference resources such as e-dictionaries, e-almanacs, e-encyclopedias, e-yearbooks, e-handbooks, e-guidebooks, e-indexes, and abstracts. These serve as tools for the digital reference service provision, which help in providing answers to specific questions, such as brief facts, statistics, and technical instructions electronically as rightly pointed out by Umaru, Aghadiuno, and Namo (2018). Digital reference resources are those library resources that are not intended to be read cover to cover but instead consulted to provide one with more concise information on a digital format. Their design is generally dependent on the type of information and treatment provided.

Digital reference service refers to all functions performed by a trained librarian to meet the information need of patrons in electronic format. Digital reference service is one of the essential services provided in the modern library system. It is one of the visible expressions of the library's purpose and mission. According to the ALA Glossary of library and information science (2014), reference services is that phase of library work, which is directly concerned with assistance to readers in securing information and in using resources of the library in study and research either in person or via electronic means. Reference services in the university library should be regarded as an essential aspect of library services that seek to satisfy the hunger of patron, and it is the root of librarianship. Based on the circumstances, Nwalo (2010) opined that services offered by reference section include answering reference queries, user education, a compilation of reading lists, bibliographies, indexing and abstracting, interlibrary loan services, and current awareness services. More so, reference services are grouped into two – direct and indirect reference services. The reference service section of every library is of paramount importance to the library just as the library is of paramount importance to every higher institution of learning. Reference service as a distinct function of the library began in the late nineteenth century, mainly in response to the growing prevalence of publicly funded libraries (both public and academic) seeking to serve relatively inexperienced and unskilled readers and scholars. There was a problem – they did not know how to use the library. Thus a reference service was developed to solve the problem of the library users (Das, Gurey and Saha, 2010).

Problem Statement

Reference services are established to provide direct contact between the librarian and library users. This contact has been dramatically affected by the increasing complexity of users. They are now mostly inclined towards the use of digital media and devices in their daily activities. This development has made reference activities of

libraries, especially in developed countries, to witness changes not only in the format of reference resources but also in the methods in which the reference services are delivered. A paradigm shift from the traditional reference services to the digital reference services, which pave the way to increased reference services provision to a more substantial number of users at a significantly reduced period.

However, decades after the successful implementation of digital reference services in developed countries, libraries in developing nations such as Nigeria are still battling with challenges in terms of bandwidth provision, electricity, internet access, and other necessary infrastructure needed for the delivery of digital reference services. These perceived problems necessitated this study to understand how academic libraries in developing countries are coping adequately and to proffer possible ways that could be adopted for efficient and effective provision and delivery of digital reference services.

Objectives

The objectives of the study are to:

1. Identify the types of digital reference resources available in the Federal University of Technology Library, Minna;
2. Find out the types of digital reference services provided in the Federal University of Technology Library, Minna;
3. Determine the challenges faced in the provision of digital reference services in the Federal University of Technology Library, Minna;
4. Proffer strategies for enhancing the provision of digital reference resources and services in the Federal University of Technology Library, Minna.

Literature Review

University library is intellectual powerhouse users are provided with information resources and services in various forms aiming at supporting the objectives of their parent institution, which has to do with learning, teaching, research, and other services (Ajibili and Ajibowo (2018). Oyewusi and Oyeboade also shared this view (2009), which sees university libraries as the academic heart of the university system, and its fundamental purpose is to provide students and faculty with material assistance and an enabling environment. The provision of various information resources and services such as books, periodicals, audiovisual materials, reference materials, circulation services, interlibrary loan, and reference services among others will facilitate teaching, learning and research activities in the universities through the

Reference resources/materials are information materials designed by the arrangement and treatment of their subject matter to be consulted for a specific piece of information instead be read consecutively. Therefore, digital reference sources are publications that provide background and factual information to a subject matter in a

digital format and could be view via electronic/digital devices such as computers, tablets, e-readers, Ipads, and mobile smartphones. They are not meant to be read from cover to cover; they are used within the library, and also they are intended to be consulted for specific information needs. The availability of digital reference sources will increase users' interest in the use of the library, as this will significantly support learning and research activities. Therefore university libraries should provide users with relevant reference sources that would aid their academic pursuit (Oyedum, 2010).

Opera cited in Edegbo (2011) opined that reference service is the act of bringing into contact the right reader and the right information sources at the right time and in the right personal way. Digital reference services involve providing answers to questions asked by library users through the use of social networks such as Facebook, Twitter, Instagram, WhatsApp, and the likewith the help of smart-phones and other communication devices. Furthermore, digital reference service goes beyond bringing the user in contact with the digital reference sources and the daily routine of responding to users' queries. In its most extensive best development, it covers anything and everything necessary to help the user in his quest for information, education, and knowledge (Owolabi and Adeyemi, 2015). The provision of qualitative digital reference service will no doubt promote research and development for national development. In a similar view, Achebe (2012) cited in Salami, Akawu, and Saka (2017) posited that reference and information service is an essential part of everyday library activity without which other functions such as collection development; cataloguing and classification can hardly be justified. The authors stressed further that it is the responsibility of the reference section as part of their services to ensure that library patrons efficiently and effectively use the resources and the services. Reference sources are information materials that are consulted for a specific purpose based on the information needs of the user. The Reference and User Services Association (RUSA) of the American Library Association (2014) defined reference services as information consultations in which library staff recommend, interpret, evaluate or use information resources to help others to meet particular information needs. These reference transactions can take place in person or via the telephone, e-mail, or virtual reference technologies. Librarians are also creating websites, answer archives, and links to answers to frequently asked questions, all designed to anticipate user questions and help people find information independently.

Adebayo (2009) opined that one of the means of meeting the needs of the university and research community is by providing active reference service. The speed-accuracy in dealing with users enquiries by the reference librarian has a high bearing on user satisfaction. On the importance of reference service, Kumar (2010) posited that reference services help the library users to get the right kind of documents and information at the right time, thus uplifting the institution. It assists the researchers to avoid duplication of work and helps them in the introduction of new ideas. It makes

information available to decision-makers to make the right decisions. Thus, reference services attempt to fulfil the objectives of the parent body. A satisfied user serves as a friend of the reference service. Udensi and Akor (2014) defined reference services as direct personal assistance to readers seeking for information in the library.

Consequently, reference service in Nigeria libraries is an extended age tradition as reference librarians serve as pilot toward directing information seekers on the latest information that is inherent in a particular field of human endeavour. The provision of qualitative reference service will no doubt promote research and development for national development. Reference sources are information materials that are consulted for a specific purpose based on the information needs of the user.

Methodology

The descriptive survey research design was adopted for this study. Survey research design is characterized by population and sample size as well as the use of data collection instruments. The population of the study comprised of all the academic librarians totaling twenty-eight (28) at the FUT Minna Library. The decision to use the entire population was guided by the assertion of Bernard (2012), who stated that if a population of the study is less than two hundred (200), the entire population should be used for the study. The questionnaire and checklist were the instruments used to elicit responses from the respondents. Data collected were tabulated and analysed using descriptive statistics of frequency counts, percentages, and mean scores.

Data Presentation and Analysis

Digital Reference Resources Available in the Federal University of Technology Library, Minna.

Table 1: Types of Digital Reference Resources Available in the FUT Library, Minna

S/N	Digital Reference Resources	Availability
1	E- encyclopedias	×
2	E-dictionaries	×
3	E-biographical sources	×
4	E-year books	×
5	E-Hand books	×
6	E-directories	×
7	E-almanacs	×
8	E-indexes and abstracts	×
9	E-bibliographies	×
10	E-government publications	×
11	E-maps, atlases, and globes	×
Key: √ = Available, × = Not Available		

Table 1 revealed that electronic reference resources such as e-encyclopedias, e-dictionaries, e-biographical sources, e-yearbooks, and e-handbooks were not available in the university library. Other e-reference resources not available were e-directories, e-almanacs, e-indexes and abstracts, e-bibliographies, e-government documents, e-maps, e-atlases, and e-globe.

The findings reveal that digital reference resources such as e-encyclopedias, e-dictionaries, e-biographical sources, e-handbooks, e-yearbooks, e-almanacs, e-directories, e-indexes, and abstracts are not available in the library. This shows that there will not be an efficient and effective digital reference service provision in the library. Udoudoh (2007) opined that relevant reference resources must be provided to answer library users many questions likely to arise from the day-to-day happening in the classroom, thus providing an avenue to stimulate and sustain their information literacy acquisition consciousness.

Table2: Types of Digital Reference Services Provided in the Federal University of Technology Library, Minna

S/N	Digital Reference Services	Provided	Not Provided
1	E-mail reference service	√	
2	Reference via Web or web forms		√
3	Video Conferencing or web Cam Service		√
4	Collaborative Digital Reference Services (CDRS)		√
5	Text-Based Chat/Instant Messaging	√	
6	Virtual Reference Desk		√
7	Digital Reference Robots		√
8	Online question and answers services	√	
9	Online interlibrary loan services	√	
	Total	4(44.4%)	5(55.6%)

Table 2 reveals that out of nine (9) items listed, 4(44.4%) items were provided in the library under study. The digital reference services provided include E-mail reference services, text-based chat/instant messaging, online question and answer services, and online interlibrary loan services. Five (55.6%) items were not provided in the library. These include Reference via Web or Web form, Video conferencing or Webcam service, collaborative digital reference service, virtual reference desk, digital reference robots. This implies that more than half of the items listed were not provided in the library under study.

The study further revealed that the provision of digital reference services via the World Wide Web, social media, and video conferencing /WebCam service was not available. Others were collaborative digital reference services (CDRS), text-based chat/instant messaging, virtual reference desk, and digital reference robots in the library

under study. This finding is in line with that of Umaru, Aghadiuno, and Namo (2018) in their studies, which found that digital reference services are provided in a few of the Nigerian universities.

Table 3: Challenges Faced in the Provision of Digital Reference Services in the University Library

S/ N	Challenges	SA	A	D	SD	($\bar{X}$)	Decision
1.	Lack of flexible reference service policy	14 68.8%	4 8.2%	2 4.8%	8 18.2%	2.78	Agreed
2.	Lack of expertise to use technologies such as (video conferencing, social media, World Wide Web and the like.) to answer users' information needs	5 14.3%	12 51.9%	7 21.2%	4 12.6%	2.51	Agreed
3.	Erratic electricity power supply	12 50.6%	6 9.5%	2 2.2%	8 37.7%	2.59	Agreed
4.	Fear of computer taken over their work	12 48.5%	5 9.1%	2 4.3%	9 38.1%	2.51	Agreed
5.	Cost of subscription/packages	11 45.9%	9 42.4%	2 3.0%	5 8.7%	2.78	Agreed
6.	Technical issues such as poor Internet network, hardware problems, among others.	14 68.8%	4 8.2%	2 4.8%	8 18.2%	2.78	Agreed
7.	Lack of active library cooperation	12 48.5%	5 9.1%	2 4.3%	9 38.1%	2.23	Disagreed

Key: Strongly Agreed (SA), Agreed (A), Disagreed (D), Strongly Disagreed (SD) and Mean($\bar{x}$)

Table 3 reveals that out of seven (7) items listed, six (6) were agreed to by the respondents as the challenges faced in the provision of digital reference services in the library. These include lack of flexible reference service policy, lack of expertise to use technologies to answer users' information needs, erratic power supply, and fear of computer taking over their work. Other challenges identified were the cost of

subscription/packages, technical issues such as poor Internet network, hardware problems, and the like with mean scores above 2.50 criteria standard for acceptance of mean. On the other hand, the respondents disagreed with one challenge: Lack of practical library cooperation with mean scores below 2.50 criteria set standard.

The study also reveals that respondents indicated a lack of flexible reference service policy, lack of expertise, erratic electricity power supply, and fear of computer taking over their work. Other challenges identified were the cost of subscription/packages, lack of digital reference services, and poor internet network as challenges faced in the provision of reference services in the library. This agrees with the findings of Onuoha (2012), who discovered that lack of adoption of ICT in the library were significant challenges in the rendering of effective reference services in academic libraries in Nigeria. The finding also agrees with that of Dara (2005), who discovered erratic power supply, lack qualified or skilled reference librarian, and obsolete reference resources as the significant challenges facing effective library services in Nigeria.

Table 4: Strategies for Enhancing the Provision of Digital Reference Resources and Services

S/	Strategies	SA	A	D	SD	($\bar{X}$)	Decision
1.	Effective, flexible reference service policy should be in place	14 68.8%	8 18.2%	2 4.8%	4 8.2%	2.82	Agreed
2.	Frequent and regular ICTs training program should be organised for library personnel	7 21.2%	12 51.9%	5 14.3%	4 12.6%	2.54	Agreed
3.	Steady electricity power supply	12 50.6%	8 37.7%	2 2.2%	6 9.5%	2.60	Agreed
4.	Re-orientation of the staff on the impression of computer	12 48.5%	9 38.1%	2 4.3%	5 9.1%	2.65	Agreed
5.	More funds should be allocated to the library to enable it subscribed to e-reference resources	7 21.2%	12 51.9%	5 14.3%	4 12.6%	2.54	Agreed

6.	Steady Internet network supply	13 54.5%	8 18.6%	3 12.6%	4 14.3%	2.58	Agreed
7.	Adoption of technologies to enable digital reference services such as e-mail reference service, video conferencing, reference via world wide web, social media, and the like.	12 51.9%	7 21.2%	4 12.6%	5 14.3%	2.56	Agreed

Key: Strongly Agreed (**SA**), Agreed (**A**), Disagreed (**D**), Strongly Disagreed (**SD**) and Mean($\bar{x}$)

Table 4 reveals that all the seven strategies listed on the way forward were agreed to by the respondents. These include: Effective, flexible reference service policy, frequent and regular ICTs training program should be organised for library personnel, steady electricity power supply, and re-orientation of the staff on the impression of the computer. More funds should be allocated to the library to enable it subscribed to e-reference resources, steady Internet network supply, and adoption of technologies to enable digital reference services with mean scores above 2.50 criteria standard for assenting of the mean.

The study finally highlighted the adequate provision of reference service in university library understudy ranging from effective, flexible reference service policy, frequent and regular ICT training, steady electricity power supply, re-orientation of the staff on the impression of computer, steady internet/network supply and adoption of digital reference services such as e-mail reference services, video conferencing, reference via World Wide Web and social networking sites as significant strategies for enhancing the provision of effective digital reference services.

Conclusion

The study assessed digital reference resources and services at the Federal University of Technology Library, Minna. The concept of types of digital reference resources, reference services provided, and challenges faced in providing digital reference services, and strategies to enhance the provision of digital reference services were highlighted. Productive, flexible reference service policy, steady power supply, frequent and regular ICTs training program, steady Internet network supply, adoption of digital reference services such as e-mail reference service, video conferencing, reference via World Wide Web, social media, and the host of other. Once these are provided in the university library understudy, digital reference services will be enhanced and improved.

Recommendations

Based on the findings of the study and conclusions drawn, the following recommendations were made to improve digital reference services at the Federal University of Technology Library, Minna.

1. Management of the Federal University of Technology Library, Minna should subscribe to a useful online database that will enable the use of electronic reference resources and services.
2. Management of the Federal University of Technology Library, Minna should postlibrarians with technical know-how to manage the reference section of the library.
3. Effective reference services policy, Frequent and regular ICTs training, and re-training of the librarians should be in place in the library.
4. Management of the Federal University of Technology Library, Minna should adopt the use of technologies to enable the provision of digital reference resources and services such as e-dictionaries, e-bibliographies, video conferencing, reference via World Wide Web, social media and the like.

References

- Adamu. M. S., Babalola, G. A., & Udoudoh, S. J. (2017). Influence of Preservation on the Information Resources in Academic Libraries in Niger State. *Samaru Journal of Information Studies*, 17(2), 1 - 18.
- Adeyemi, N. M. (2015). Issues in the Application and Utilization of ICT to Reference Services in Library and Information Centres. Keynote Paper Presented at the National Interactive Library Seminar, Jos; University of Jos, 26th – 28th April.
- Aina, L. O. (ed.) (2004). Research in information science: An African perspective, Nigeria:Stirling –Horden Publishers (Nig) Ltd.
- Ajibili, D. O., & Ajibowo, O. G. (2018). The extent of utilisation of open access resources in libraries of private universities by postgraduates students in Nigeria. *International Journal of Applies Technologies in Libraries and Information Management*, 4 (1),1 - 13.
- ALA Glossary of library and information science (2014).
- Campbell, J.D. (2008). “Still Shaking the Conceptual Foundations of Reference: A Perspective.”*The Reference Librarian*, 48 (100), 21-24.
- Das, T. K. Gurey, P., & Saha, N. C. (2010). Evaluation of Current Trends in Reference Service in Lieu of a Model: A Case Study of Central Library, Visva-Bharati India.
- Edegbo, W. I. (2011). “Curriculum Development in Library and Information Science Education in Nigerian Universities: Issues and Prospects” *Library Philosophy*

- and Practice (e-journal)* Paper 560.<http://digitalcommons.unl.edu/libphilprac/560>.
- Katz, W. A. (1997). Introduction to Reference Work, Vol. 1 Basic Information Source 7thEd. New York: The McGraw – Hill Companies, Inc., 436p.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. In: Sarantakos, S. 1998. *Social research*. 2nd ed. London: Macmillan Press Limited. p163
- Kumar, K. (2010). Reference service. (5 revised edition). New Delhi: Vikas Publishing.
- Neeru, B., & Ranjana, V. (2007). Trends in Reference and Information Services in the Electronic Era: A case study of A. C. Joshi Library, Panjab University, Chandigarh.
- Nwalo, K. I. N. (2010). Reference sources and services, Ibadan: Centre for External Studies, University of Ibadan.
- Obaje, A. M. (2011). The extent of Internet Use by Undergraduate students of the Faculty of Natural Sciences, University of Jos. *Journal of Educational Studies (JES)*, 15(1), 10-16.
- Onuoha, O. C. (2012). Reference Services in the Digital Age, National library of Nigeria. *JOSSAN*, 2 (1), 42
- Opoku, D. (2011). Improving Service Quality in the academic library: A managerial approach. *International Journal of Research in Education*. 8 (2), 198 – 209.
- Owolabi, G. A. (2015). Information Communication Technology (ICT) Utilization for Instructional Delivery in Teaching-Learning Process in Nigerian Educational System. *International Journal of Scientific & Engineering Research*, 6 (11).
- Oyedum. G. U. (2010). “Introduction notes on Reference and Bibliography “. Minna: Mairo Press and Computer Centre p. 4.
- Oyewusi, F. O., & Oyeboade, S. A. (2009). An Empirical Study of Accessibility & use of Library Resources By Undergraduate in a Nigeria State University of Technology. *Library Philosophy and practice (e-Journal)*, 227-238. Retrieved from [https:// www.digitalcommons.unl.edu/veiwcontent/c](https://www.digitalcommons.unl.edu/veiwcontent/c).
- Salami, R. O., Akawu, L. & Saka, K. A. (2017). Reference Services in the 21st Century Academic Libraries: Old Wine in a New Bottle. *Conference proceedings of Nigerian Library Association, Niger State Chapter, 27th Nov. - 1st Dec., 262 - 267*.
- Udensi, J. N., & Akor, P. U. (2014) "Functions of interpersonal communication in rendering reference services in two University libraries in Nigeria." *Library Philosophy and Practice (e-journal)* .Paper 896.<http://digitalcommons.unl.edu/libphilprac/896>

- Udoudoh, S. J. (2007). Availability and use of information literacy facilities among Primary School Pupils in Akwa Ibom State, Nigeria. *Borno Library, Archival, and Information Science Journal*, 6 (2), 103-112.
- Umaru, I. A., Aghadiuno, P. C. & Namo, I. U. (2018). Provision of Digital Resources and Services in Three Federal University Libraries in North-Central Nigeria. *International Journal of Applied Technologies in Library and Information Management*, 4 (1), 51-67.
- Usman, P., & Attahiru, J. (2015). Evaluation of Reference Services in Academic Libraries: A Comparative Analysis of Three Universities in Nigeria.