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PROVISION OF DIGITAL REFERENCE INFORMATION RESOURCES FOR EFFECTIVE RESEARCH OF POSTGRADUATE STUDENTS IN UNIVERSITY LIBRARIES IN SOUTH SOUTH NIGERIA

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Abstract
This study investigated the provision of digital reference information resources for effective research of postgraduate students in university libraries in South-South, Nigeria. Four research questions and one null hypothesis guided the study. A descriptive survey research design was employed in studying 3411 postgraduate students from three universities in South-South, Nigeria. The sample size of345 postgraduate students was selected for the study using the purposive sampling technique. Digital Reference information Resources Provision Questionnaire (DRIRPQ) was used to collect data. Data from the research questions were analysed with descriptive statistics of mean and standard deviation. The null hypothesis was tested at 0.5 level of significance. The findings reveal that websites, e-databases, e-journals, e-books, and mobile resources were the digital information resources provided in the libraries. Postgraduate students these digital information resources to find research topics, obtain general information, access journal articles, and search for current literature. The challenges affecting the provision of digital reference information resources were paucity of funds, erratic power supply, lack of ICT skilled library staff, and poor Internet connectivity. Strategies to enhance the provision of digital reference information resources were provision of adequate funds, provision of steady power supply, engaging ICT skilled library staff, and provision of robust Internet access. The study recommends that improved funding should be channeled to the acquisition of current digital reference resources in the libraries.

Keywords: *Digital Reference Resources, Electronic Information Resources, University Libraries, South-South, Nigeria*

Introduction

The aim of establishing a library in a university is to support, facilitate and promote academics and research works of students, faculty members and entire university community. Gemma (2016) pointed out that the university library must be convenient to access and use; the library must be a place for people to freely interact, and the library must be modifiable to reflect people's changing interests. According to Waghmare and Salve (2014, p. 16), the university library is a library established to serve two complementary purposes, to support the curriculum of the institution and to support the research of the university faculty and

students. Ensuring fruitful and productive research is one of the cardinal objectives of every university; therefore, it is the responsibility of the library to provide adequate and current information resources that support quality research in the university. By providing information resources in a systematic and organized manner that ensures easy access, retrieval, and use, the library contributes its quota in ensuring that her parent institution is highly recognized and ranked in terms of original and quality research outputs.

Information resources are reading, learning, and knowledge materials that contain information that could be used to support academic works; research works, and to satisfy social and recreational information needs. The library selects, acquires, organizes, stores, preserves, and disseminates information resources in line with the curriculum and teaching requirements of the academic departments in the university. Oyewunmi, Olatunji, and Adegun (2017) & Asnafi, Moradi, Dokhtesmati, and Naeini (2017). The university library provides information resources such as monographs, serial or periodical publications, reference resources, audio-visuals, and ephemerals.

Traditionally, information resources appeared in manual or print formats. However, with the advent of Information and Communication Technology (ICT) and the Internet, information resources started appearing in digital or electronic formats. Oyedokun, Oyewumi, Akanbi, and Laaro (2018) observe that information resources have transformed from print to digital and web resources. To queue into this trend, university libraries started acquiring and providing digital/electronic information resources. Eyitayo (2013) pointed out that most modern libraries have taken a major shift from volume-limiting paper to limitless multimedia digital forms. According to Itsekor and Vicent (2014) with ICT, libraries are creating, processing, storing, and disseminating information electronically. Shafack (2016) noted that libraries have embraced the shift from a print to a digital information environment as supported by the advent of new Internet technology such as mobile or broadband. University libraries today have made tremendous effort to enrich and increase the volume of digital

information resources in their collection to support the academics and research of library users in the university.

Library users such as the postgraduate students find it easy to access and retrieve information, they need to carry out their research works through digital reference resources provided in the library. Ajiboye and Tella (2007) posit that postgraduate students' research range from succinct information resources to active and purposeful information search to prepare for seminars, workshops, and final research papers. Postgraduate students are mainly workers, thus, in most cases, they find it difficult to visit the library complex to use the information resources for their research. On the other hand, locating, current information through the Internet could be difficult due to tight work schedules, business engagements, or poor Internet connectivity and access.

To support quality, original and effective postgraduate students' research works and increase their research output, there is a need to provide digital reference resources in university libraries. Nyika (2014) advised that since postgraduate research contribute significantly towards the overall productivity of universities and the quality of their products, the university should put in place procedures (resources) meant to ensure that postgraduate research meets acceptable minimum standards. However, libraries in developing nations like Nigeria are still finding it difficult to provide reference information resources in digital formats. In most cases, when they are provided, they are inadequately provided or not current. Based on this, therefore, there was a need to investigate the provision of digital reference information resources for effective research of postgraduate students in federal university libraries in South-South, Nigeria.

Objectives of the Study
The study sought to determine:
1. digital reference information resources provided for postgraduate students in federal university libraries in South-South, Nigeria;
2. areas digital reference information resources are used for effective research by the

postgraduate students in federal university libraries in South-South, Nigeria;

3. challenges affecting the provision of digital reference information resources for effective research by postgraduates in federal university libraries in South-South Nigeria;

4. strategies to enhancethe provision of digital reference information resources for effective research by postgraduate students in federal university libraries in South-South Nigeria.

Research Questions

The following research questions guided the study:

1. What are the digital reference information resources provided for postgraduate students in federal university libraries in South-South Nigeria?

2. What are the uses made of digital reference information resources for effective research by postgraduate students in federal university libraries in South-South Nigeria?

3. What are the challenges affecting the provision of digital reference information resources for effective research in Federal university libraries in South-South Nigeria?

4. What are strategies to enhance the provision of digital reference information resources for effective research in federal university libraries in South-South, Nigeria?

Hypothesis

HO$_1$. The mean responses on strategies to enhance the provision of digital reference information resources for effective research will not differ among the federal university libraries.

Review of Literature
Use of Digital Reference Resources

Digital reference resources are manual reference resources transformed into digital or electronic formats. They arelocated, accessed, retrieved, and usedvia digital devices such as private computers (PCs), smartphones, IPad, and tabs. Kurbu, Obaseki, and Umeji(2010) affirm that digital reference resources are those reference information resources that before were in print forms, but currently are in the non-print form (softcopy) and are accessible through computer machines and other corresponding ICT tools. Buckland (2007) pointed out that one of the very first digital library developments was the transition of bibliographies and other reference works to digital formats which allowed new kinds of remote searching. Digital reference resources are stored in the cloud or CD-ROMs. In essence, they are cloud-based, web-based, or cyberspace-based and accessed through electronic devicessuch as flash drives, floppy disks, CD ROMs, Memory cards, etc.

Shidi (2013) identified digital reference resources provided in the library as digitized (print) materials, e-journals, e-books, e-books, e-maps, images, sounds, videos and multimedia, LAN, WA, etc. Thus, Mulla and Chandrashekara (2006) observe that reference works like encyclopedias, dictionaries, handbooks, atlases, databases, etc. are also making their electronic appearance on the Web. In a study, Adeoye and Popoola (2011) found that digital reference resources provided in libraries include e-books, e-journals, e-indexes, e-abstracts, e-magazines, internet, and e-mail. Isaac, Philip, and Isaac (2018) found that e-books, e-dictionaries, and e- encyclopedias are provided in libraries. Ramaswamy, Baillargeon, and Simser (2008) include e-encyclopedias, e-directories, e-dictionaries, and so on. Onifade, Ogbuiyi, and Omeluzor (2013) found out that e-journals and e-books were the next most used resources representing 56(17.1%) of the total responses. Digital reference resources also include e-databases, websites, electronic integrating resources, etc, whether free or fee-based required supporting research on the subject covered.

Library users use digital references for various purposes such as academic and research works, and social and recreational information needs. Awololain Isaac, Philip, and Isaac (2018) pointed out that digital reference resources can be used for effective communication and information retrieval in a digital environment. Olajide and Adio (2017) declare that the provision of electronic information resources will broaden the range of available information within the library adding value to the content by making them accessible through digital means so that users can access them anytime and anywhere. E-reference is

increasingly being seen as a means to replace the traditional, space-intensive, printed reference collection within the library building (Lund and Young, 2007).

Some factors inhibit the provision of digital services and resources in the library. Ekwelem, Vincent, Okafor, and Ukwoma (2009) affirm that financial inadequacies, inadequate skills, epileptic power supply, and inadequate infrastructure hinder the effective provision of digital reference resources. In their study, Apotiade, Oyewole, and Belau (2015) found that the erratic nature of electricity, lack of ICT skills, and slow internet connectivity are general challenges faced in electronics. To alleviate the challenges, Kanyengo (2006) maintained that for effective utilization of digital resources in Africa to thrive, efforts should be focused on funding, creating an enabling policy framework, and training staff. Moukwelu,Usuka, andAzubuike(2021) suggest that the management of public libraries should design and implement the provision of digital reference services to ensure timely access to information irrespective of location and time. More so, Okoye and Ugwuanyi (2012) believe that institutions should provide adequate funds for the effective running of libraries, and library schools and in Nigeria should provide pragmatic training to students to enable them to handle e-resources.

Research by Postgraduate Students
One of the avenues through which the university boosts its research outputs is to gain a high ranking nationally and internationally. Postgraduate research improves and enhances the university's reputation and recognition globally. Mutula (2009) stated that postgraduate research is a form of study offeredby a university or an institution of advanced learning/education that is(academically) recognized and can take any form of the above types of research. Theemphasis of postgraduate research is on developing systematic skills of investigation during the research process. To further enhance the quality of research, seminars and workshops must be built into postgraduate programs to impart knowledge and skills in areas such as time management, project management, business communication, oral examination, thesis writing, responsible conduct during research, formatting research

essays, citing and referencing techniques, using archival sources, content analysis, critical discourse analysis, ethnographic research, action research, quantitative/qualitative research, literature reviews, and basic and applied research (University of Botswana, 2009). The end product of a research work carried out by postgraduate students is a research output which is a medium through which they communicate to the public their research findings.

A university is notable for producing quality postgraduate research works that will always earn the attention of government agencies and ministries, organizations, and groups that finance research work. Such universities will always have students from all over the world applying to study in them. Nemanya (2014) added that indeed, it is through the production of graduates with new ideas that the university helps create innovations for the growth and development of industries and government, thereby promoting. The aim of engaging postgraduate students in well-scrutinized research activity is to produce quality researchers who will immensely develop new ideas through in-depth reasoning, to produce people who will help improve the economic, political, social, technological, scientific, and cultural system through their research findings, and to advance them into intellects and rational thinkers. Finally, it is only through research that the university contributes to the growth and development of the nation.

Methodology
The study adopted descriptive survey research design. Population of the study comprised doctorate students, master's students, and postgraduate diploma students in federal university libraries in South-South, Nigeria. According to the 2016 postgraduate students' enrolment register, there were 3411 postgraduate students made up of 1440 students from University of Calabar, 845 from University of Uyo, and 1116 form University of Benin. Purposive sampling was used to select only three federal university libraries that have digitized their reference services. A multistage sampling technique was adopted in the sampling. The sample size is 345, which consist of 145 from University of Calabar, 82 from University of

Uyo, and 112 from University of Benin. Instrument for data collection was a questionnaire titled Provision of Digital Reference Resources Questionnaire (PDRRQ). It had 4 clusters. The questionnaire was structured on a four-point rating scale. A total of 320 copies of the questionnaire were distributed, while 293(85.92%) were completed and returned. Data collected were analyzed with descriptive statistics of mean and standard deviation for the research questions. Items with mean score of 2.5 and above was rated as positive whereas item with mean score below 2.5 was rated as negative. The Analysis of Variance (ANOVA) was used to test the null hypothesis at 0.05 level of significance.

Result and Discussion

Research Question 1: What digital reference resources are provided for effective research in federal university libraries in South-South Nigeria?

Table 1: *Mean rating of postgraduates' response on the provided digital reference resources*

S/N	Items	Uni Cal	Uni Uyo	Uni Ben	Mean sum	Std. Dev	Rank	Decision
1	e-books	2.81	2.63	2.95	2.79	.95	4th	HP
2	e-journals	2.70	2.72	2.98	2.80	.91	3rd	HP
3	Websites	3.10	3.11	3.13	3.11	.94	1st	HP
4	Databases	3.09	2.98	3.08	3.05	.97	2nd	HP
5	e-theses	2.41	2.42	2.65	2.49	1.02	6th	LP
6	Digital reference platforms	2.51	2.42	2.47	2.46	.91	7th	LP
7	Mobile resources	2.80	2.28	2.45	2.51	1.06	5th	HP
8	Audiovisual	2.36	2.26	2.32	2.31	1.01	9th	LP
9	e-projects	2.42	2.21	2.45	2.36	1.03	8th	LP
	Cluster Mean				2.65			HP

Key:
S/N = Serial Number, Uni Cal = University of Calabar. UniUyo = University of Uyo, Uni Ben = University of Benin, Mean Sum = Mean Summation, STD Dev = Standard Deviation, HP = Highly Provided, LP = Less Provided

The result in Table 1 shows that thedigital reference resources that were highly provided for effective research in federal university libraries in South-South, Nigeria were websites, databases, e-journals, e-books, and mobile resources. However, some of the digital reference resources that were less provided were e-theses, digital reference platforms, audiovisual, and e-projects. The cluster meanof 2.65 shows that the digital reference resources were highly provided in the libraries. The standard deviation scores that range from 1.06 to .91 show low response differences among the postgraduate students.

Research Question 2: What are the areas digital reference information resources are used for effective research by postgraduate students in federal university libraries in South-South Nigeria?

Table 2: *Mean rating of postgraduates' response'on areas digital reference resources are used for research*

s/n	Item Statement	Uni Cal	Uni Uyo	Uni Ben	Mean sum	Std. Dev	Rank	Decision
1	Searching for research topics	3.35	3.14	3.46	3.31	.88	1st	A
2	Obtaining general information	3.21	3.02	3.36	3.19	.94	2nd	A
3	Completion of assignments	3.11	2.95	3.36	3.14	.97	3rd	A
4	Accessing journal articles	2.82	2.97	3.23	3.00	1.00	4th	A
5	Writing essays	2.80	2.65	2.76	2.73	1.07	8th	A
6.	Decision making	2.64	2.44	2.58	2.55	1.02	11th	A
7.	For leisure reading	2.63	2.37	2.74	2.58	1.06	10th	A
8.	For current literature search	2.83	2.62	2.78	2.74	1.04	7th	A
9.	To find out statistical methods of data analysis	2.71	2.53	2.62	2.59	1.07	9th	A
10	Obtaining information on impact factor journals	2.59	2.52	2.66	2.59	1.01	9th	A
11	For writing synopsis	2.38	2.43	2.59	2.46	1.03	13th	D
12	For grant writing	2.45	2.39	2.58	2.47	1.02	12th	D
13	For current practices in research	2.87	2.81	2.96	2.88	1.06	5th	A
14	For paper presentations in conferences, seminars, etc.	2.86	2.81	2.81	2.82	1.09	6th	A
Cluster Mean				2.78		A	

graduate students use digital reference resources, which areto search for research topics, obtain general information, complete assignments, access journal articles, for current practices in research, paper presentations in conferences, seminars,etc, and current literature search. However,the respondents disagreed that digital reference resources were used for writing a synopsis and for grant writing. The cluster mean of 2.78 is a clear indication that postgraduate students agreed digital reference resources were used for research in federal university libraries in South-South, Nigeria. The standard deviation score range from 1.07 to .88 signifies low variance in postgraduate students' responses.

Research Question 3: What are the challenges affecting the provision of digital reference resources for effective research in Federal university libraries in South-South Nigeria?

Table 3: *Mean rating of postgraduates' response to the challenges affecting the provision of digital reference resources for effective research*

s/n	Item Statement	Uni Cal	Uni Uyo	Uni Ben	Mean sum	Std. Dev	Rank	Decision
1.	Inadequate provision of fund for acquisition of DRRs	3.54	3.18	3.36	3.36	.91	1st	A
2.	Erratic power supply	3.31	3.21	3.55	3.35	.92	2nd	A
3.	Lack of ICT skilled library staff to operate with the resources	3.01	3.04	3.29	3.11	1.03	3rd	A
4.	Lack of adequate ICT facilities	3.00	2.97	3.31	3.09	.99	5th	A
5.	Poor internet connectivity	3.13	2.94	3.23	3.10	1.04	4th	A
6.	Poor attitude of library management towards digital service migration	3.03	3.02	2.76	2.93	1.00	6th	A
	Cluster Mean				3.09			A

The result in Table 3 suggests that the agreed challenges affecting the provision of digital reference resources for effective research were inadequate funding for the acquisition of DRRs, erratic power supply, lack of ICT skilled library staff, poor Internet connectivity, and poor attitude of library management towards digital service migration. The cluster mean score was 3.09 which indicates that the identified challenges were affecting the provision of digital reference resources for effective research. The standard deviation ranges from 1.06 to .91 which shows low response variance.

Research Question 4: What strategies could be adopted to enhance digital reference resources utilization for effective postgraduate research output in the libraries understudy?

Table 4: *Mean rating of postgraduates' response to the strategies for enhancing digital reference resources utilization for effective postgraduate student research output*

s/n	Items	Uni Cal	Uni Uyo	Uni Ben	Mean sum	Std. Dev	Rank	Decision
1.	Aadequate funding for acquisition of DRRs	3.53	3.36	3.44	3.44	.91	1st	A
2.	Regular power supply	3.26	3.20	3.56	3.34	1.00	2nd	A
3.	Engaging ICT skilled library staff to operate with the resources	3.35	3.20	3.55	3.33	.90	3rd	A
4.	Provision of adequate ICT facilities	3.25	3.17	3.49	3.30	.93	5th	A
5.	Procurement of adequate Internet connectivity	3.22	3.23	3.49	3.31	.96	4th	A
6.	Proper enlightenment of the library management on the need to adopt digital service migration	3.06	3.11	3.10	3.09	1.00	6th	A
7.	Proper orientation on the university management on the need to invest in digital service migration	3.14	2.82	2.95	2.97	1.11	7th	A
	Cluster Mean				**3.25**		**A**	

A= Appropriate

Result in Table 4 shows that the strategies to enhance the provision of digital reference resources for effective research are adequate funding for the acquisition of DRRs, regular power supply, engaging ICT skilled library staff, and procurement of adequate Internet connectivity. The cluster mean of 3.25 shows that the identified strategies are appropriate to enhance the provision of digital reference resources for effective research. The standard deviation score that ranges from 1.11 to .91 indicates low variance in the responses.

HO1. The mean responses on strategies to enhance the provision of digital reference information resources for effective research will not significantly differ between the federal university libraries.

Table 5: *Analysis of Variance on strategies for enhancing the provision of digital reference information resources for effective research between the federal university librarians*

Institutions	N	Sum of Squares	Mean	df	F	Sig.	Decision
UniCal	7	.032	3.27	3	.36	.69	Rejected
UniBen	7	.781	3.21	18			
UniUyo	7	.813	3.31				
				21			

Table 5 shows the ANOVA summary on the mean differences of the federal university libraries on strategies to enhance the provision of digital reference information resources for effective research. It shows that the obtained F-ratio .36 is significant at .69 level. This is less than the 0.05 level of significance set for testing the hypothesis; hence, the null hypothesis was rejected. Therefore, it was found that significant differences exist between the mean ratings of the postgraduate students in the three federal university libraries on strategies to enhance the provision of digital reference information resources for effective research.

Discussion
The first result found that websites, databases, e-journals, e-books, and mobile resources were highly provided; whereas, e-theses, digital reference platforms, audiovisual, and e-projects were less provided. This finding concurs with that of Isaac, Philip, and Isaac (2018)who found that e-books, e-dictionaries, and e- encyclopedias are provided in libraries, and Adeoye and Popoola (2011) who found that digital reference resources include e-books, e-journals, e-indexes, e-abstracts, e-magazines, Internet, and email and Tofi, Agada and Okafor (2020) and discovered that the e-thesis, Internet, e-databases e-dictionaries are provided and used in university libraries in Benue State, Nigeria.Digital reference resources are veritable resources that library managers need to ensure that they are adequately provided. This is because they help in providing users with timely, convenient, and current information they need to support their academic and research works. Users can conveniently in the comfort of their abodes and offices access and use the information they seek when they are provided without having to visit the physical library.

The second result found thatuses made of digital reference resources in the research were for searching research topics, obtaining general information, completing of assignments, accessing journal articles, for current practices in research, for paper presentations in conferences, seminars, and literature search, etc. This result agrees with Deng (2010) who revealed that the various purposes for the use of electronic resources vis-a-vis digital reference resources include gathering information on a specific topic, gaining general information, obtaining answers to specific questions, completing assignments, reviewing the literature, writing essays and helping decision making. The finding shows that the use of digital reference resources is required and important in all areas of research. From the time of identifying a problem, formulating the research title, and writing the research work to the actual conducting, and reporting of the findings of the research work, it is beneficial to consult and use digital reference resources.

The third result found that inadequate provision of funds for the acquisition of DRRs, erratic power supply, lack of ICT skilled library staff, poor Internet connectivity, and poor attitude of library management towards digital service migration were the challenges affecting the provision of digital reference resources. In agreement with the finding, Olajide and Adio (2017) found erratic power supply, access to e-resources, inadequate reading space, and lack of current and relevant materials as factors that affect the provision of library resources;Ekwelem, et al. (2009) affirm that financial inadequacies, inadequate skills, epileptic power supply, and inadequate

infrastructure hinder the effective provision of digital reference resources; and Apotiade, Oyewole, and Belau (2015) found that erratic nature of electricity, lack of ICT skills and slow Internet connectivity were general challenges faced in rendering digital reference services. In developing nations like Nigeria, library services are often affected by various challenges within and outside the library. Even though the relevant authorities are taking action to save the situation and improve the system, it is unfortunate that they persist.

The fourth result found that the strategies for enhancing the provision of digital reference resources include the provision of adequate funds for the acquisition of DRRs, adequate power supply, engaging ICT skilled library staff, and procurement of adequate internet connectivity.Kanyengo (2006) maintains that for effective utilization of digital resources in Africa to thrive, efforts should be focused on funding, creating an enabling policy framework, and training staff. Okoye and Ugwuanyi (2012) suggest that institutions should provide adequate funds for the effective running of the libraries, and library schools in Nigeria should provide pragmatic training to students to enable them to handle e-resources.Finance is essential in running the daily activities of the library. Therefore, funds must be adequately providedto purchase adequate digital reference resources. More so, librarians need to be trained in digital library services and Information and Communication Technologies (ICT). The study also found significant differencesin strategies to enhance the provision of digital reference information resources for effective research among the three federal university libraries. This implies that every library needs to survey, evaluate, and find out the appropriate strategies suitable to enhance and improve its digital services.

Conclusion

Digital reference resources such as websites, databases, e-journals, e-books, mobile resources, e-theses, digital reference platforms, audiovisual, and e-projects are provided in the studied university libraries. This implies that users can now access the information resources in the libraries without physically visiting the library complex or shelves, rather from remote places using electronic resources. Postgraduate students use digital reference resources to search for research topics, obtain general information, completion of assignments, access journal articles, for current practices in research, for paper presentations in conferences, seminars, literature search, etc. This implies that all researchers who allow themselves to locate and use digital reference resources will have current and relevant literature and information to support their academic and research needs. Challenges that affect the provision of digital reference resources include the provision of funds for the acquisition of DRRs, erratic power supply, lack of ICT skilled library staff, poor Internet connectivity, and poor attitude of library management towards digital service migration.To enhance the provision of digital reference resources, adequate fundsshould be provided for the acquisition of DRRs, an adequate power supply should be made available, ICT skilled library staff should be engaged in digital services, and adequate Internet connectivity should be provided. Finally, the application of these strategies and their effectiveness in improving digital reference resources significantly differ based on individual libraries.

Recommendations
The following recommendations were made based on the findings of the study:
1.   Library managers should provide enough funds to procure more and manage the digital reference resources in the library;
2.   Users should be well informed about available digital reference resources in the libraries. Digital reference resources in the library should be used to facilitate their research and academic works;
3.   Library managers should develop strategies to consistently unravel the challenging factors affecting the provision of digital reference resources.

4.   Library managers should ensure that a steady power supply and robustInternet connectivity facilities are made available in the library to enhance the provision and use of digital reference resources.

References

Adeoye, M. O. &Popoola, S. O. (2011). Teaching effectiveness, availability, accessibility, and use of library and information resources among teaching staff of schools of nursing in Osun and Oyo State, Nigeria. *Library Philosophy and Practices*. Retrieved from http://www.webpages.uidaho.edu/~mbolin/adeoye-popoola.htm on Sept 2017

Ajiboye, J. O., &Tella, A. (2007). University undergraduate students' information seeking behaviour: Implications for quality in higher education Africa. *The Turkish Journal of Online Educational Technology,* 6(1), 40-52

Ali, A. (2006). C*onducting Research in education and the social sciences*. Enugu: Tashiwa Networks Ltd.

Asnafi, A R., Moradi, S., Dokhtesmati, M. &Naeini, M. P. (2017). Using mobile-based social networksby Iranian libraries: The case of telegram messenger.*Library Philosophy and Practice (e-journal)* 1539. Retrieved from http://digitalcommons.unl.edu/libphilprac/1539 on 12/11/2018

Apotiade, J. K., Oyewole, O. & Belau, A. O. (2015). Availability, accessibility, and utilization of electronic reference services by undergraduate students in Bells University, Ogun State, Nigeria. *Information and Knowledge Management*, 5(9), 40-46.

Buckland, M. K. (2007). The digital difference in reference collections, *Journal of Library Administration*, 46(2), 87-100.

Deng, H. (2010). Emerging patterns and trends in utilizing electronic resources in a higher education environment: An empirical analysis. *New Library World*, 111(3-4), 87-103.

Dogara, K. (2010). Reference and information services delivery in academic libraries in Nasarawa State of Nigeria. (Published Master dissertation, University of Nigeria, Nsukka). http://www.unn.edu.ng/publications/files/images/REFERENCE%20AND%20INFORMATION %20SERVICES%20DELIVERY%20IN%20ACADEMIC%20LIBRARIES%20IN%20NASAR AWA%20STATE%20OF%20NIGERIA%202_0.pdf

Ekwelem, V. O., Okafor, N. V. &Ukwoma, C.cS. (2009). Students' use of electronic information sources at the University of Nigeria, Nsukka. *African Journal of Library, Archival and Information Science*, 19(1), 89-9.

Moukwelu, M. I., Usuka, E. I.&Azubuike, C. G. (2021). Impact of Users' Reference and Information Needs Satisfaction on Library Patronage. *Library and Information Science Digest*, 14(1), 66-78.

The University of Auckland (2016). Research Definition and Research Outputs: System Categorisation Guidelines. Retrieved from https://www.auckland.ac.nz/en/about/the-university/how-university-works/policy-and-administration/research/output-system-and-reports/research-outputs--definition-and-categories.html on Feb 2018.

Tofi, S. T., Agada, E. O., &Okafor, C. J. (2020). Utilization of Digital Reference Resources and Services by Postgraduate Students in University Libraries in Benue State, Nigeria. *International Journal of Research and Innovation in Social Science*, IV(VI), 72-84.

Uhegbu, A. N. (2009). *Research & statistical methods in library and information science,* Owerri: Barloz Publishers

University of Botswana. (2009). *Report of the Task Group on the 'Future of Graduate Research Supervision at the University of Botswana*. Gaborone: School ofGraduate Studies, University of Botswana.

Wadesango, N. (2014). Publish or perish: Impediments to research output and publication. *International Journal of Education Science*, 6(1), 57-63.

Waghmare, D. D. & Salve, S. R. (2014). Innovative practices in academic libraries in the ICT environment. *International Journal of Educational Research*, 5(1), 16-21.