



## Digital Inclusion in Universities and Librarians' Performance of Library Tasks During Covid-19 Pandemic in Nigeria

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### Abstract

*The purpose of the study is to examine digital inclusion in universities and librarian's performance of library tasks in the Covid-19 pandemic era in Nigeria. The scope of the study is the government owned University libraries, that is, State and Federal institutions within the six states in South-South, Nigeria. Literatures were reviewed in line with the variables under study. Correlational type of survey research design was adopted for this study, while the data collected was analyzed using descriptive and inferential statistics (that is, mean and standard deviation) to answer research questions. The criterion mean was placed at 2.50. For Hypothesis one Pearson Product Moment Correlation Co-efficient was used. A total of 223 librarians across University libraries in South-South Nigeria made up the population of the study. The entire population (total enumeration) was used as the sample size which was considered adequate for the study. Questionnaire was used for data collection. A total of 223 copies of the questionnaire were distributed and 183 were found usable, representing 82% response rate. Consequently, the following finding were made. The level of digital inclusion in Universities for librarian's performance of library tasks in the Covid-19 pandemic era in South-South, Nigeria is high. The level of access to digital technologies in Universities for librarian's performance of library tasks in the Covid-19 era in South-South, Nigeria is high etc. Due to the findings of the study, recommendations which include that: The level of digital inclusion in Universities for librarian's performance of library tasks in South-South, Nigeria should be sustained. The contribution to knowledge include that, the study has established the level of digital inclusion in Universities libraries for librarian's performance of library tasks in the Covid-19 pandemic era in South-South, Nigeria to be low.*

**Keywords:** Digital Inclusion, Librarians, Library Tasks, Covid-19, Pandemic

## **Introduction**

The strain of Corona virus that broke out in Wuhan China was tagged Covid-2019 pandemic. This virus has altered the culture of the people and threatened human existence. The education industry is one of the grossly affected sectors all over the world. The dreaded virus has created paradigm shift in the mode of operations in all facets of our life. The existence of Covid-19 pandemic has also threatened University libraries which serve as the engine room for teaching, learning and research. According to World Health Organization (WHO) (2020). The Covid-19 pandemic is caused by severe acute respiratory syndrome Corona virus 2 (SARS-CoV-2). Consequently, Covid-19 is an infectious virus that was caused by a newly discovered strain of corona virus; this virus is transmitted primarily by taking in droplets from an infected person(s) or objects. In Nigeria, the dramatic effects of the first wave of the Covid-19 pandemic in the first four or five months of 2020, spread across states which resulted to shutdown of schools by the Nigerian government due to lack of digital facilities to curb the spread and their clamor for social distancing among others to curtail the spread of the deadly virus. However, social distancing, wearing of nose mask and regular washing/sanitizing of hands became most of the community mitigation measures that were recommended by Nigeria Centre for Disease Control (NCDC) (Nigeria Centre for Disease Control, 2021).

Sadly, the conventional methods of teaching, learning and research suffered severe setback all over the world including Nigeria. Schools were closed down thus teaching and learning were disrupted (United Nations Education, Scientific and Cultural Organization, 2020). According to International Federation of Library Association (IFLA) (2020), libraries and librarians drawn experiences around the world on the alternative mode of performance of library task during the pandemic. More so, librarians were faced with hard choices around which services to offer amid the pandemic because the sanctions placed by restricting services led to closure of libraries, this was a difficult one which was needed to be taken following an assessment of the relative risks. Similarly, Yousuf and Gatiti (2020) highlighted the librarians' role amid a pandemic to include promotion of public health awareness, dissemination of related information for preventive measures, supporting research teams and faculties by providing current awareness services regarding the latest developments, research and literature and meeting the core needs of regular

library users. Other roles include preservation and documentation of all the experiences on how the University libraries can manage the pandemic and preserve information resources for posterity. This can be achieved by bridging the digital gap by way of digital inclusion in Universities and librarian's performance of library tasks in the covid-19 pandemic era. Considering the mode of transmission of Covid-19 pandemic, University libraries resort to alternative platforms in meeting the information needs of users.

Azolo (2021) in her study highlighted different types of smart technologies that were utilized in University libraries during pandemic such as Covid-19 which include: computer system and its accessories, cell-phone or smart-phone, internet, video conferencing devices, projector, digitizing machines, Microsoft printers, radio-electronic copiers, Easy-to-Read-Books, Assistive Listening Systems and others that can support the deaf or the physically challenged in University libraries. In Nigeria, University libraries in partnership with leading publishers such as Elsevier, Oxford, Willy, Emerald, Harvard, and others agencies gave free access to the new literature on Covid-19 journal articles and papers, commentaries and so on (Elsevier, 2020). The libraries subsequently share the information with faculty members, researchers, and students, online platforms and other related applications are used to share knowledge about the Covid-19 pandemic. More so, at the period of this study, Covid-19 pandemic that ravaged the world does not seem to be completely eradicated, governments have raised alarm on the second and third wave of the pandemic also known as delta variant which was presided by the omicron variant that has pushed government to making policy of compulsory vaccination of her citizens. Followed by the latest Covid-19 variant Omicron, countries restricted movement and placed ban on other countries. Sequel to this, librarians are looking forward, expecting to discover new services and opportunities to build a stronger library-user interface in the future through digital inclusion. In order to achieve these goals, University libraries needed to be equipped with latest ICT infrastructure and skilled manpower to be able to render virtual library services. Such service in pandemic era include: virtual reference service like chat/e-mail; self-check-in and checkout of books using Frequency Radio Identification (FRID); scanning of chapters from books, journals articles for remote users; LibGuide- list of resources available in the library; update library website dynamic content and useful tutorials (Asif & Singh, 2020).

Digital inclusion occurs when we have both the ability and the opportunity to use online technologies effectively (Barraket & Wilson, 2021). Digital inclusion is the concept that individual and communities should be afforded access to and use of computers, mobile devices and the internet. In addition to access, underlying principles of digital inclusion is that individual and communities acquire the knowledge and skills, background content, and technological support services necessary to use technology (Institute of Museum and Library Services, 2018). Digital inclusion has enabled library users to be able to access information and communication technologies in University libraries (Burnett, 2016). Burnett further noted that University libraries have key roles to play in digital inclusion and help to reach the furthest. In the Covid-19 pandemic era, it was an opportunity for University libraries to demonstrate their place in digital inclusion.

Prior to Covid-19 pandemic, literature and experience have shown that librarians in University libraries focused on promoting library services and resources event through physical contacts such as the word of mouth, posters, and the notice board. However, observations and personal interactions with colleagues have shown that librarians in University libraries in Nigeria were yet to fully adopt the functional digital technologies in rendering services especially in Covid-19 pandemic era which it is a thing that all libraries should embrace. Thus, this abnormally could be as a result of low level of librarians' digital inclusion. This study was carried out to obtain information in order to understand the exact situation and to proffer solution where possible. Thus the central focus of this study is to investigate digital inclusion in Universities and librarian's performance of library tasks in Universities during Covid-19 pandemic in Nigeria.

### **Objectives of the Study**

The main objective of the study is with the view of finding out the areas of strength and weakness in librarian's performance of library tasks in Universities during the Covid-19 pandemic Nigeria. The specific objectives of the study are to:

- i. ascertain the level of digital inclusion in Universities for librarian's performance of library tasks in the Covid-19 pandemic in Nigeria;
- ii. find out benefits of access to digital technologies in Universities for librarian's performance of library tasks in during the Covid-19 pandemic in Nigeria;

- iii. ascertain the library tasks performed in Universities by librarians during the Covid-19 pandemic era in Nigeria;
- iv. institute the relationship between digital inclusion in Universities and librarian's performance of library tasks in the Covid-19 pandemic in Nigeria;

### **Research Questions**

The following questions were formulated to guide the study.

- i. What is the level of digital inclusion in Universities for librarian's performance of library tasks in the Covid-19 pandemic in Nigeria;
- ii. What are the benefits of access to digital technologies in Universities for librarian's performance of library tasks in during the Covid-19 pandemic in Nigeria;
- iii. What are the library tasks performed in Universities by librarians during the Covid-19 pandemic era in Nigeria;

### **Hypotheses**

The following null hypotheses were formulated and tested at 0.05 level of significance.

Ho<sub>1</sub>: is there any relationship between the level of digital inclusion in Universities and librarian's performance of library tasks the Covid-19 era.

### **Review of Related Literature**

The study of Barraket and Wilson (2021) on digital inclusion and Covid-19 pandemic revealed that in Australia digital inclusion index show overall inclusion rising in 2021 to 7.9 point as against 6.9 in 2019. Martzoukou and Elliot (2020) carried out a study that examined the "extent to which librarians are successfully prepared to engage the community in digital literacy and inclusion". The majority of the respondents felt that information technology and transferable skill were perceived to be important, but gaps were identified on what they learned in their library programme, and how it translates into their working environment, and recommends for libraries to foster digital inclusion. More so, the study of Oyelude and Akin-Fakorede (2019) on the new skill sets for future Science, Technology, Engineering and Mathematics (STEM) library, it was

found that the advent of innovative technologies makes it imperative for librarians to continually improve their digital skills, to meet user needs and for excellent service delivery. Similarly, American Library Association (2015) recommended the development of digital inclusion competencies of librarians as a priority for libraries (University libraries). More so, sets of digital skills were identified by Martzoukou and Elliot, (2020) for digital inclusion which include IT skills, transferable skills, Web Technologies Techniques etc. For digital inclusion, in the area of competence and ability of the library professionals to function optimally, Bhati and Kumar, (2020) highlights the essential skills to include technical skills, communication skills, makeup managerial skills, library and information handily skills, understanding of cultural diversity, lifelong learning skills services orientation skills, presentation skills, evaluation skills and so on. Therefore, University Libraries should develop the skills to respond to the changing needs of library users through online platform usage for library services in Covid-19 pandemic era.

More so, IFLA (2011 cited in IFLA, 2020) on a seminal titled “equitable access to digital content: lesson from Covid-19” revealed that during the pandemic (Covid-19) visitations to physical library, handling of library books were all public health risk. In addressing the issue of public access to digital technology, Valensiya Dresvyannikova of IFLA presented a joint EIFL-IFLA study titled “Public access in library achievements and insight from broadband policy implementation”. The study examined internet access in libraries and library services in Colombia, Kenya, Lithuania, Philippine and Romania, it was found that there is gap in access to digital content and information during the pandemic and future recovery (IFLA, 2020).

The study of Mahadevan and Kumar (2020) also found that many University libraries already have a strong digital presence while others have moved to create one to continue serving patrons during Covid-19 pandemic. Bhati and Kumar (2020) in their study on the role of library professionals (librarians) in the pandemic situation like Covid-19 opined that digital access to information can be challenging roles for library professionals, they added that within the covid-19 emergency situation, in other to provide valuable information, the library professionals should deal with the new technologies. Unfortunately, IGF (2020) affirmed SDGs target of achieving universal connectivity by 2020 has not been met. But covid-19 pandemic had underscored the depth and gravity of the digital divide and is eroding development gains in countries and communities that

were disconnected from the rest of the world (IGF, 2020). Similarly, the study of Azolo (2020) strongly advocated for massive internet access and connectivity to enable University libraries use smart technologies in covid-19 era.

Furthermore, the study of Siddike et al.(2011 as cited in Toroitich and Momanyi 2018) on a paper delivered in the International seminar on “vision 2021: the role of libraries for building digital Bangladesh opined that developing countries should follow the developed countries in adopting technologies. Equally, Toroitich and Momanyi (2018) carried out a studying on automating library services, users access and management system in Maseno University Library, the finding of the study revealed that University libraries are not exempted from the impact of digital technologies, that 80% of the implementation of the digital technologies in University libraries have made a tremendous improvement on library services (Toroitich & Momanyi, 2018).

Besides, the study of Mahadevan and Kumar (2020) highlighted 21st century different components of providing digital information services, and information and communication technologies of University libraries, he added that the situation is changing and the University library professionals should be ready for everything, and discourage university libraries in developing countries over dependence of traditional library services. The study summits that university libraries should enhance their capability and move away from traditional way to adopt virtual way. Bhati and Kumar (2020) posited that library professionals can play with ICT tools and spread the information to the community of users. The library professionals can also provide cloud-based library services, authentication technologies, remote access electronic resource management systems, library services platform & Lib Guide/IRs, advocating marketing of library services through Blogs and other social media networks, web courses etc. All these can be done through various online platforms in academic library. Asif and Singh (2020) in their study “trends, opportunities and scope of libraries during Covid-19 pandemic does not seem to be eradicated completely, that librarians in University libraries are looking forward, exciting to discover new services and opportunities to build a stronger library user interface in the future. In order to achieve that, virtual library services were highlighted to include: virtual reference services e.g. Chat/email, self-check-in and check-out of books, scanning of chapters from books, journals articles for remote users, LibGuide-List of resources available in the library and updating library website dynamic content and the useful tutorials (Asif & Singh 2020).

## Research Method

The survey research design that was used for the study is the correlational type survey research design. The purpose of this correlational survey design is to establish what relationship exists between two or main variables. The population of the study was 223 librarians in Federal and State University Libraries in South-South, Nigeria. Therefore, total enumeration sampling techniques was adopted for the study. The data collected was analyzed using descriptive and inferential statistics to answer research questions. However, all the statistical analysis were carried out using Statistical Package for Social Sciences (SPSS) version 23. All the hypotheses were tested at 0.05 level of significant.

## Presentation of Results and Discussion

### Answering of the Research Questions

Research Question 1: What is the level of digital inclusion in Universities for librarian's performance of library tasks in the Covid-19 era in South-South, Nigeria?

**Table 1: Level of Digital Inclusion in Universities**

<b>Digital inclusion</b>	<b>VHL</b>	<b>HL</b>	<b>LL</b>	<b>VLL</b>	<b>Mean</b>	<b>Std.</b>
I have access to digital environment	81	64	28	10	3.18	0.89
I have access to mobile devices	95	66	15	7	3.36	0.79
I have access to internet	81	65	28	9	3.19	0.87
Provision/adoption of new technologies	42	79	56	6	2.86	0.81
Continuous training programmes on new technologies	25	70	66	22	2.54	0.88
Provision of online university library services	38	53	65	27	2.56	0.98
Integration of library e-services into the university Management Learning System	28	62	72	21	2.53	0.89
Provision of boundless resources to support e-learning	27	59	71	26	2.48	0.91
Librarians possession of information technology and transferable skills to engage in the digital community	37	77	54	15	2.74	0.87
Incorporation of online platforms in library services	39	74	58	12	2.77	0.86
Increased expectations on new technologies for librarians	38	83	49	13	2.80	0.85
<b>Aggregate Mean</b>					2.82	0.58
<b>Criterion Mean</b>						2.50



Table 2 shows that with an aggregate mean of 2.82(Std. = 0.58) which is greater than the criterion mean of 2.50, it can be concluded that the level of digital inclusion in Universities for librarian’s performance of library tasks in the Covid-19 era in South-South, Nigeria was high.

**Table 3: Benefits of Access to Digital Technologies in Universities**

<b>Access to digital technologies</b>	<b>VHL</b>	<b>HL</b>	<b>LL</b>	<b>VLL</b>	<b>Mean</b>	<b>Std.</b>
Access to environment has helped to foster collaborations among librarians	49	82	39	13	2.91	0.87
Access to digital environment has effectively transformed library service	53	82	30	18	2.93	0.92
Librarians access to digital technologies has helped to turn traditional library to hybrid library	65	70	33	15	3.01	0.93
Access to digital technologies has enabled virtual support for library services	44	96	23	20	2.90	0.89
With access to digital technologies, librarians has incorporated library services into digital platforms	46	86	37	14	2.90	0.87
Access to digital technology supports librarian’s digital literacy skills	38	103	30	12	2.91	0.79
Creating access to digital technologies by librarians promote universal academic values	61	72	29	21	2.95	0.98
Access to digital technologies has brought new opportunities in library services	64	82	18	19	3.04	0.93
Access to digital technologies present librarians with opportunities to find themselves in digital community	75	69	22	17	2.93	1.03
<b>Aggregate Mean</b>					<b>3.10</b>	<b>0.95</b>
<b>Criterion Mean</b>						<b>2.50</b>

Table 5 shows an aggregate mean of 3.10 (Std. = 0.95) which is greater than the criterion mean of 2.50. The study therefore revealed that the level of access to digital technologies in Universities for librarian’s performance of library tasks in the Covid-19 era pandemic in South-South, Nigeria is high. This implies that the librarians have access to digital technologies for the performance of library tasks during the Covid-19 pandemic era.

**Table 6: Tasks Performed in Universities libraries with digital tools**

Library tasks (services) rendered by librarians in the covid-19 era	Agreed		Disagreed		Total	
	No.	%	No.	%	No.	%
Provision of cloud-based library services	78	42.6	105		183	100.0
Providing of technology authentication services	104	56.8	79		183	100.0
Provision of remote access to electronic resources management	101	55.2	82		183	100.0
Collection development management via digital environment	87	47.5	96		183	100.0
Provision of library guide/IRs	102	55.7	81		183	100.0
Advocating and marketing of library services through social networks	125	68.3	58	31.7	183	100.0
Web course/centric course/enhance course services	89	48.6	94	51.4	183	100.0
Virtual reference services	101	55.2	82	44.8	183	100.0
Self-check-in and out of books	78	42.6	105	57.4	183	100.0
Scanning of chapters of books	98	53.6	85	46.4	183	100.0
Searching online database journals	121	66.1	62	33.9	183	100.0
Providing library support for e-learning platform	112	61.2	71	38.8	183	100.0
Integration of e-library services into LMS	90	49.2	93	50.8	183	100.0
Users education/orientation for freshers	94	51.4	89	48.6	183	100.0
Creating access to e-journal's digital repositories	116	63.4	67	36.6	183	100.0
Provision of e-content and information sources links to patrons	106	57.6	77	42.1	183	100.0
Pick-up request items services at the circulation desk	87	47.5	96	52.5	183	100.0

Table 6 shows that librarians agreed on the following: advocating and marketing of library services through social networks; 125(68.3%), searching online database journals; 121(66.1%), providing library support for e-learning platform; 112(61.2%), creating access to e-journal's digital repositories; 116(63.4%), provision of e-content and information sources links to patrons; 106(57.6%), providing of technology authentication services; 104(56.8%), provision of library guide/IRs; 102(55.7%), provision of remote access to electronic resources management and virtual reference services; 101(55.2%) respectively etc.

## Testing of the Hypotheses

**H<sub>01</sub>: There is no significant relationship between digital inclusion in Universities and librarian's performance of library tasks in the Covid-19 era.**

**Table 8: Relationship between Digital Inclusion and Performance of Library Tasks**

		Level of Digital Inclusion	Performance of Library Tasks in Covid-19 Era
Digital Inclusion	Pearson Correlation	1	.273
	Sig. (2-tailed)		.000
	N	183	183
Performance of Library Tasks in Covid-19 Era	Pearson Correlation	.273	1
	Sig. (2-tailed)	.000	
	N	183	183

Table 4.14, shows the Pearson correlation coefficient  $r$  (0.273) implying 27% degree of relationship. Therefore, there is low relationship between digital inclusion and librarian's performance of library tasks in the Covid-19 era. Since the significant value (Sig.2-tailed) is 0.000 (which is less than 0.05), it can be concluded that digital inclusion has a significant relationship with librarian's performance of library tasks in the Covid-19 era. The null hypothesis is therefore rejected implying that an increase/decrease in digital inclusion may lead to a corresponding increase/decrease in librarian's performance of library tasks in the Covid-19 era.

## Discussion of findings

The studies revealed that the level of digital inclusion in Universities for librarian's performance of library tasks in the Covid-19 era in South-South, Nigeria is high. This corroborates the study by Internet Governance Forum (IGF) (2020) which confirmed the need to intensify efforts during Covid-19 to end digital divide. The findings is also in line with Martzoukou and Elliot (2020) who identified librarians learnt, and how it translates into working environment for libraries to foster digital inclusion. The findings therefore affirmed that digital inclusion presents high hope for librarians' performance of library task sin the area of technical knowhow and skill required that is why the level of digital inclusion was found to be high.

The findings of the study revealed the level of access to digital technologies in Universities for librarian's performance of library tasks in the Covid-19 era in South-South, Nigeria is high. This implies that the librarians have access to digital technologies for the performance of library tasks during the Covid-19 pandemic era. This correspond to the study of Mahadevan and Kumar (2020) which found that many University libraries already had a strong digital presence while others have moved to create one to continue serving patrons during Covid-19 pandemic. Also, the findings of the study supports the study of Bhati and Kumar (2020) on the role of library professionals in the pandemic situation like Covid-19 which opined that digital access to information can be challenging roles for library professionals, they added that within the Covid-19 pandemic emergency situation, in other to provide valuable information, the library professionals should deal with the new technologies.

As revealed by the study, advocating and marketing of library services through social networks, searching online database journals, providing library support for e-learning platform, creating access to e-journal's digital repositories, etc were found to be the library tasks performed in Universities by librarians in the Covid-19 era in South-South, Nigeria. The findings supports the study of Bhati and Kumar (2020) on the role of library professionals in a pandemic situation like Covid-19 confirmed that library professionals can provide e-contents, information link to patrons.

Finally, the study established that there is low relationship between digital inclusion and librarian's performance of library tasks in Covid-19 era. This supports the study of Burnett, (2016) that affirmed that University libraries have key role to play in digital inclusion and help librarians to reach the furthest. It also supports the study of Asif and Singh (2022) that posited that amidst covid-19, University libraries need to be equipped with the latest infrastructures to enable virtual library services. This is possible through digital inclusion. This however, goes to show that digital inclusion has significant relationship with librarian's performance of library tasks.

## **Conclusion**

Arising from the findings made in this study, it is obvious that there has been a very low level of motivation, poor planning, inadequate funding and low level of preparedness for disaster in education sector exposed Universities to public health risk during Covid-19 pandemic. And this negates digital inclusion, usability and usage of online platform to meet information needs of the users in Covid-19 pandemic era in Nigeria. It evidence in the study is that librarians in Universities are not well equipped with emerging technologies to be motivated by means of enhanced digital tools to effectively apply online platforms for performance of library task Covid-19. Thus, alternative platforms such as online services like internet access, social media applications should be deployed to bridge the digital divide among librarians in South-South Nigeria.

Consequently, librarians need to be protected; there should improvement on the level of preparedness to ensuring public health safety in University libraries in the Covid-19 pandemic era. Hence, these can spur librarians' performance of tasks in Covid-19 pandemic era.

## **Recommendations**

Due to the findings of the study, the following recommendations were made.

- i) The level of digital inclusion in Universities for librarian's performance of library tasks in South-South, Nigeria should be sustained.
- ii) The level of access to digital technologies in Universities for librarian's performance of library tasks in South-South, Nigeria should be sustained and if possible improve upon.
- iii) Librarians in Universities in South-South Nigeria should explore other emerging library tasks such as cloud-based library services, technology authentication services, Collection development management via digital environment and library guide/IRs in order to keep pace with the global best practices in performance of library tasks in times of pandemic.

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