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Librarians' Digital Literacy Skills and Services Delivery in Academic Libraries in Taraba State, Nigeria: A Correlation

By

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Abstract

The study correlated the digital literacy skills of librarians in academic libraries in Taraba State, Nigeria and their services delivery. The correlational design was adopted in studying 112 librarians drawn from 11 academic libraries in Taraba State. A researcher-made questionnaire was used for data collection. 112 copies of the questionnaire were administered but 109 were retrieved. Data was analysed using descriptive and inferential statistics. The single null hypothesis was tested at 0.05 level of significance using the linear regression. Consequently, the strength of relationship between variables was decided using the Creswell correlational ranking and results presented in frequency tables. Findings of the study shows that digital literacy skills possessed by the librarians was low as they were only skilful in using the Internet to search and communicate information, conduct website evaluation and use Boolean logic, among other skills. However, numerous services were provided. Furthermore, result showed a correlational value of 0.17 and hypothesis yielded a p-value of 0.08. This shows that there is a positive very low and insignificant relationship between digital literacy of librarians and services delivery in academic libraries in Taraba State, Nigeria. Based on the result of insignificant relationship between the digital literacy skills of librarians and services delivery, the study recommends that library authorities should intensify efforts in creating the understanding of digital literacy skills, their essence and application to enable the librarians to acquire more of the skills as well as apply them in the discharge of their duties, among other things.

Keywords: Digital Literacy Skills, Librarians, Academic Libraries, Services, Delivery

Introduction

The exponential growth in the amount of information available in different sources and formats coupled with the rise in the human desire to solve his or her information problem independently, have brought about much emphasis on the patterns and systems of information creation, organization, dissemination, preservation and conservation. This has increased the need for individuals, especially, the information services providers, such as the library staff to acquire competencies and skills for effective and efficient searching, locating, retrieval and utilization of the right information at the right time and from the right place. Thanuskodi (2019) strongly

emphasizes the challenge of the library staff in the digital or Internet age. This is because of the rise in competitors, as well as library users' demands and expectations. However, the ability of an individual to obtain the right information at the right time and from the right place is tantamount to quality and healthy living, which invariably affects the way such individual functions in his/her chosen career.

It is very clear that as a result of the escalating complexity of today's environment, several individuals are faced with diverse and abundant information choices. These information choices surface in their academic studies, workplaces, and personal lives. Secondly, the complexity of these choices is further aggravated as a result of many openings through which information could be acquired, disseminated and stored. Today, a large measure of information could be obtained from libraries, community resource/information centres, media, and the most popular, the Internet and World Wide Web. Increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability (Dadzie, 2008). This is highly true of most of the digital information and information resources. In addition, information is available through multiple media, including graphical, aural, and textual. All these openings pose new challenges for individuals, especially, the library staff in accessing, evaluating and understanding it, hence, the need for these librarians to appreciate the issue of digital literacy skills. On the other hand, these digital technologies, if properly adopted, could also lead to the delivery of quality library services, which is one of the purpose of any academic library.

Akidi and Oduagwu (2021); Onuoha and Chukwueke (2021) define the academic library as a library established, maintained and administered by tertiary institutions such as universities, polytechnics, colleges of education, colleges of agriculture, and other monotechnics. The purpose of academic libraries is to foster teaching, learning and community services. This they do through the provision of an array of information resources and library services. Consequently, library services refer to as assistants provided by a library to the users. These services represent a series of personal, direct or indirect assistance provided by the library staff to the users of the library. Some of the academic library services as given by Adegoke (2021) may include digital library services, virtual reference services, 'ask a librarian' services, adaptive learning services (ALS), referral services, current awareness services, knowledge creation and digital humanity services, inter-library lending services, data services, data consultation services, publishing support services, digital scholarship services, makerspace services, reservation services, selective dissemination of information services, information resources lending services, translation services, photocopying services, and library instruction services. Others include indexing and abstracting, OPAC services, cataloguing and classification, collection development, bindery, and Internet and e-mail services.

Academic libraries through the activities of librarians adopt different patterns in their service delivery. Nonetheless, in any method adopted, efficiency and effectiveness must be ensured. To this end, Nnadozie, et. al. (2017) believe that librarians and other information specialists are expected to possess learned techniques and skills for utilizing a wide range of information tools as well as primary sources in moulding information. Agreeably, Lau (2006) had earlier remarked that the development of such techniques and skills should take place throughout the individual's life, especially during the educational years. He further writes that the librarian, as a part of the learning community and, as experts in information management, should assume the key role of facilitating information and digital literacy through the creation of curriculum-integrated programs addressing modern technologies and the tenets of the 4th industrial revolution. However, not minding that librarians are drivers of such literacy programmes, it is expedient to look into their digital literacy skills in building an information-literate society through the delivery of arrays of services. This is based on the fact that no one can give what he/she does not have. And, this is the rationale upon which this study is set to correlate the digital literacy skills of librarians found in academic libraries in Taraba State, Nigeria and their services delivery.

Research Objectives

The main purpose of the study is to correlate the digital literacy skills of librarians and services delivery in academic libraries in Taraba State, Nigeria. Specifically, the study:

1. identified the digital literacy skills possessed by librarians in academic libraries in Taraba State, Nigeria;
2. found out the services delivered by librarians in academic libraries in Taraba State, Nigeria; and
3. examined the relationship between digital literacy skills possessed by librarians in academic libraries in Taraba State, Nigeria and their services delivery.

Hypothesis

The null hypothesis was tested at .05 level of significance

HO₁: Significant relationship does not exist between digital literacy skills of librarians and delivery of services in academic libraries in Taraba State, Nigeria.

Literature Review

The acquired skills or tactics to effectively function in the digital age is termed as digital literacy according to Yasemin (2006) (as cited in Fakunle, et. al, 2022). Digital literacy is a set of skills that enable individuals to operate effectively in information retrieval task in technology-oriented environments. Digital literacy is further defined as the ability to understand and use information in multiple formats (Gilster, 2005), as cited in Chan, et. al., 2017). This literacy in the

clear words of Chan, et. al. (2017) encompasses critical thinking skills, information and communication technology skills in the areas of having the ability to read and interpret the meaning of a digital text, symbols and graphs. Digital literacy can be regarded as an umbrella framework of skills, knowledge and ethics (Okeji, et. al., 2020). Fakunle, et. al. (2022) describe a digitally literate person as someone with the ability to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources. According to the author, digital literacy can be conceived on three levels. These levels include digital competence, digital usage and digital transformation (Emiri, 2015). Consequently, this literacy promotes the ability to read, write, view, listen, compose and communicate information and changes from time to time. Eshet-Alkalai (2007) (as cited in Emiri, 2015) holds that digital literacy encompasses photo-visual literacy (ability to read and deduce information from visuals), reproduction literacy (ability to use digital technology to create a new piece of work or combine existing pieces of work together to make it your own), branching literacy (ability to successfully navigate in the non-linear medium of digital space), information literacy (ability to search, locate, assess and critically evaluate information found on the web), and socio-emotional literacy (the social and emotional aspects of being present online, whether it may be through socializing, and collaborating, or simply consuming content).

According to Allen (2016), developing technology and massifier structures necessitate digital literacy. Furthermore, learning from digital text forms and reading skills are essential in digital literacy. To this end, the capability and skills of individuals to use technology to create, navigate, disseminate, evaluate and store information is described as digital literacy. Digital literacy has to do with skills, knowledge, and behaviours that involve effective and efficient use of digital devices like smartphones, tablets, iPhones, laptops, iPad and desktop PCs for purposes of collaboration, communication, expression, advocacy and even decision-making. This has become a highly sort skills for information managers such as the librarians and other library staff. This led to the assessment of the digital literacy skills of 21st-century librarians in private university libraries in Anambra State by Okeji, et. al. (2020). The study reported that academic librarians in private universities in Anambra State possess digital literacy skills. It was further revealed that the librarians sponsor themselves to train on digital literacy as the indicated the attendance of training, at least twice a year. On the challenges facing the acquisition of digital literacy and its application in services deliver, the study of Okeji et. al. (2020) reported power failure and poor Internet. In light of the above, the authors recommended that academic librarians should endeavour to acquire all the digital literacy skills required for perfect service delivery, among other things.

Going further, Anyaoku, et. al. (2015) investigated information literacy skills and perceptions of librarians in colleges of education in Nigeria and found that respondents rated their skills lowest on the ability to carry out a search using Boolean operators and the ability to use appropriate presentation software to present information. This is based on the non-provision of facilities needed to apply information and digital literacy skills as well as the inability of the regulatory bodies (in this case, the Librarians' Registration Council of Nigeria) to regulate curriculum on digital literacy skills. Not minding the impediments to possession of digital literacy skills, the study of Ojedokun (2014) which focused on the information literacy competence of librarians in South West Nigerian university libraries reveal that such skills are

practical in the areas of enhancing effectiveness, efficiency and productivity at work. It is also on this ground that the author recommended regular training and retraining through professional development workshops, librarians' access to regular use of the Internet, and the review of the curriculum of the library schools to incorporate the teaching of digital literacy skills with particular emphasis on the practical components. This is not different from the submission of Emiri (2015) who investigated the digital literacy skills among librarians in university libraries in the 21st century in Edo and Delta States, Nigeria and found that electronic mailing, social networking, use of PDAs, mobile phones and Internet surfing are the major digital literacy skills amongst librarians. Emiri (2015) also revealed that librarians acquired such skills through colleague's assistance, trial and error, IT programmes and formal education while librarian's level of use of digital literacy skills is low. Based on this, the author recommended that management of university libraries should provide training for librarians so as to help update their knowledge in application of digital skills and digital skill competence should be giving more attention during recruitment of librarians

Nonetheless, with the massive introduction of ICTs into academic libraries, possession of good digital literacy skills becomes very important. Earlier supporting the view, Nagashetti and Kenchakkanavar (2001) (as cited in Fakunle, et. al., 2022) gave the reason to be the recent takeover of the globe by technological advancements. This, in the view of Fakunle, et. al. (2022) has led to the strong influence of ICTs on the ways through which we communicate, interact, read or write. The authors further note that human beings with capacity to adapt to different environmental conditions, have developed and acquired certain tactics or skills, to fit in, and function in this digital era. Contradictorily, very few individuals possess the required skills to using the digital collection for their varying degrees of information needs (Igbo & Imo, 2020). According to Emiri (2015), librarians need much more in this digital age to embrace digital literacy skills on their work than ever before. The author further submits that digital literacy will go a long way in helping librarians to develop skills that can add to their economic status and improve their overall job performance and standard of living. Such skills can also help them to progress on their jobs and on their careers. With these skills, librarians will be more equipped for resource sharing, social networking, surfing the net, instant messaging and blogging and host of others digital oriented activities (Emiri, 2015), among other things.

It is very clear that much have been said concerning digital literacy skills. However, of these studies did not deal with digital literacy skills of librarians and the few that examined the digital literacy skills of librarians were carried out outside Taraba State, Nigeria, whereas this study correlated the digital literacy skills of librarians in academic libraries in Taraba State, Nigeria and services delivery.

Methodology

The correlational design was adopted for this study using a total population of 112 which comprises librarians in all eleven (11) academic libraries in Taraba State. These libraries include the College of Agriculture Library, Jalingo; College of Education Library, Zing; College of Science and Technology Library, Takum; College of Nursing and Midwifery Library, Jalingo; Danbaba

Danfulani Suntai Library, Taraba State University, Jalingo; Federal Polytechnic Library, Bali; and Muwanshat College of Health Science and Technology Library, Jalingo. Others include Prof. Abubakar Adamu Rasheed Library, Federal University, Wukari; Rufkatu Asibi Kuru Danjuma Library, Kwararafa University, Wukari; Peacock College of Education Library, Jalingo; and Taraba State Polytechnic Library, Suntai. The choice of these libraries is due to the nature of the study which focused on the academic libraries in Taraba State. Furthermore, the category of library staff chosen are those with degrees in library and information science (that is bachelors, masters and PhD). They are either progressing with the academic librarian cadre or the non-academic (library officer) cadre, as the case may be. Staff of the library with national diplomas, certificates and those on administrative/executive cadres were excluded from the study.

Additionally, the entire population of 112 was studied. A 30-item researcher-made questionnaire was used for data collection in this study. The instrument is titled: *Information Literacy Skills and Services Delivery Questionnaire (ILSSDQ)*. However, to ensure that the instrument for data collection measures what it is intended to test, the questionnaire was validated by three (3) experts from Taraba State University, Jalingo. The questionnaire was further subjected to pilot test using the test-re-tests method and yielded a correlation coefficient value (r) of 0.88. 112 copies of the questionnaire were administered but 109 copies were retrieved, dully filled and found suitable for data analysis. This gave a response rate of 97.3% and was considered good enough.

The data collected for this study were analysed using descriptive and inferential statistics. In this case, research objectives 1 and 2 were handled using mean scores and standard deviation with the adoption of a criterion mean of 2.50. Furthermore, research objective 3 was handled using Pearson Product Moment Correlation. Nonetheless, the extent or strength of the relationship of the variables was decided and interpreted using Creswell's correlation coefficient scale which provides that for correlation coefficient (r) of values below or equal to ± 0.20 , represents very low association, values of $\pm 0.21 - 0.40$ depicts low association, values of $\pm 0.41 - 0.60$ indicates moderate association, values of $\pm 0.61 - 0.80$ represents high association, and values of $\pm 0.81 - 1.00$ means very high association (Creswell (2014) as cited in Okafor, 2019). Similarly, for the hypothesis testing, linear regression was used. The implication was that any item whose p-value is greater than or equal to the alpha value of .05 was not rejected (hence, accepted) while any item with a p-value less than the alpha value of .05, was rejected.

Result and Findings

The results are provided in line with the research objectives.

Research Objective 1: To identify the digital literacy skills possessed by librarians in academic libraries in Taraba State, Nigeria

Table 1: Mean and standard deviation of responses on digital literacy possessed by librarians in academic libraries in Taraba State, Nigeria

S/n	Item Statement	SA	A	D	SD	Mean	St. Dev.	Remark
1	I have the ability to use the Internet in search of information	64	32	6	7	3.40	.86	Agreed
2	I have the ability to use the Internet to communicate information	22	13	72	2	2.50	.84	Agreed
3	I have the ability to use computer systems for information dissemination	10	23	-	76	1.70	1.09	Disagreed
4	I have the ability to conduct website evaluation	31	37	38	3	2.88	.86	Agreed
5	I have the ability to use Boolean logic	40	19	50	-	2.91	.91	Agreed
6	I have the ability to use different software	13	17	79	-	2.39	.69	Disagreed
7	I can design a simple webpage	14	22	32	41	2.08	1.05	Disagreed
8	I can design a database	50	44	9	6	3.27	.84	Agreed
9	I can obtain product keys for software	6	13	58	32	1.94	.80	Disagreed
10	I can populate a database	21	11	7	70	1.84	1.23	Disagreed
Cluster Average						2.49	.92	Disagreed

Source: *Researcher's Field Survey, 2022*

Table 1 shows the data from responses on the digital literacy of librarians in academic libraries in Taraba State, Nigeria. There are ten (10) item statements covering responses on the digital literacy of library staff. The table shows a total disagreement among the respondents on their opinion on the digital literacy of librarians in academic libraries in Taraba State, Nigeria as it yielded a cluster average mean score of 2.49 with a standard deviation (St. Dev.) of .92. The cluster average mean value for Table 1 is below the criterion mean of 2.50 set for this study, hence, the decision of disagreement.

Furthermore, the responses per item statement show the agreement of the following item statements by the majority of the respondents. They include: I have the ability to use the Internet in search of information 3.40(.86); I have the ability to use the Internet to communicate information 2.50(.84); I have the ability to conduct website evaluation 2.88(.86); I have the ability to use Boolean logic 2.91(.91); and I can design a database 3.27(.84). Furthermore, majority of the respondents that constitute 1.70(1.09), 2.39(.69), 2.08(1.05), 1.94(.80), and 1.84(1.23) disagreed with the following item statements: I have the ability to use the computer systems for information dissemination, I have the ability to use different software, I can design a simple webpage, I can obtain product keys for software, and I can populate a database.

This study showed that the majority of the respondents disagreed with 5 of the 10 item statements (see item statements 3, 6, 7, 8, 9, and 10) on digital literacy possessed by librarians in the academic libraries studied as reported in Table 1. This disagreement of the item statements accounts for a cluster average mean value of 2.49 with a standard deviation of 0.92, respectively.

Research Objective 2: To find out the services delivered by librarians in academic libraries in Taraba State, Nigeria

Table 2: Mean and standard deviation of responses by librarians on delivery of services in the academic libraries in Taraba State, Nigeria

S/n	Item Statement	SA	A	D	SD	Mean	St. Dev.	Remark
11	I can deliver quality reference services	65	40	-	4	3.52	.69	Agreed
12	I can deliver referral services to the peak	53	53	3	-	3.46	.55	Agreed
13	I can deliver high-quality Internet services	52	53	4	-	3.44	.57	Agreed
14	I know how to index library documents for users	41	50	10	8	3.14	.87	Agreed
15	I can deliver adaptive learning services	31	43	14	21	2.77	1.07	Agreed
16	I can deliver current awareness services	41	61	4	3	3.28	.67	Agreed
17	I am good at bibliographic search services	29	50	30	-	2.99	.74	Agreed
18	I am good at literature review services	37	62	10	-	3.25	.61	Agreed
19	I can deliver books and articles publication services	44	48	11	6	3.19	.83	Agreed
20	I can comfortably advertise the library on the media	50	45	10	4	3.29	.79	Agreed
21	I can deliver publishing support services	38	58	13	-	3.23	.65	Agreed
22	I am good at the selection of library materials processes	37	55	13	4	3.16	.77	Agreed
23	I am good at knowledge creation and digital humanity services	28	43	19	19	2.73	1.03	Agreed
24	I can ensure library websites maintenance	18	51	36	4	2.76	.77	Agreed
25	I can deliver library blogging services	20	40	40	9	2.65	.88	Agreed
26	I can deliver makerspace services	21	58	27	3	2.89	.74	Agreed
27	I can deliver research data consultation services	12	33	15	49	2.07	1.10	Disagreed
28	I can deliver "Ask a Librarian" services	19	84	6	-	3.12	.45	Agreed
29	I can deliver digital scholarship support services	8	39	42	20	2.32	.86	Disagreed
30	I can deliver virtual reference services	12	41	36	20	2.41	.92	Disagreed
Cluster Average						2.98	.78	Agreed

Table 2 presents data from responses by librarians on library service delivery in academic libraries in Taraba State, Nigeria. There are twenty (20) item statements covering responses on various academic library services in Taraba State. The result reports a total agreement by the respondents (librarians) on academic library services delivery in Taraba State, Nigeria as it accounts for a cluster average mean score of 2.98 with a standard deviation (St. Dev.) of .78. The agreement is because the cluster average mean exceeds the criterion mean of 2.50 set for this study.

Furthermore, the result shows that the majority of the respondents agreed to some of the item statements such as: I can deliver quality reference services 3.52(.69); I can deliver referral services to the peak 3.46(.55); I can deliver high quality Internet services 3.44(.57); I know how to index library documents 3.14(.87); I can deliver adaptive learning services 2.77(1.07); I can deliver current awareness services 3.28(.67); I am good at bibliographic search services 2.99(.74); I am good at literature review services 3.25(.61); I can deliver books and articles publication services 3.19(.83); I can comfortably advertise the library on the media 3.29(.79); I can deliver publishing support services 3.23(.65); I am good at selection of library material's processes 3.16(.77); I am good at creation and digital humanity services 2.73(1.03); I can ensure library websites maintenance 2.76(.77); I can deliver library blogging services 2.65(.88); I can deliver makerspace services 2.89(.74); and I can deliver "Ask a Librarian" services.

However, the majority of the respondents that constitute mean scores and standard deviation of 2.07(1.10), 2.32(.86), and 2.41(.92), disagreed with the following item statements: I can deliver research data consultation services, I can deliver digital scholarship support services, and I can deliver virtual reference services, respectively.

Research Objectives 3: To examine the relationship between digital literacy skills possessed by librarians in academic libraries in Taraba State and their services delivery.

Table 3: Correlation matrix of association digital literacy of librarians and delivery of services in academic libraries in Taraba State, Nigeria

		DL	LSD
DL	Pearson Correlation	1	.170
	Sig. (2-tailed)		.078
	N	109	109
LSD	Pearson Correlation	.170	1
	Sig. (2-tailed)	.078	
	N	109	109

Correlation is significant at the 0.01 level (2-tailed), DL = Digital Literacy, LSD = Library Services delivery, N = Number of respondents

Data in Table 3 indicates a correlation coefficient (r) of 0.17 which is positive and within the limit of below or equal to ± 0.20 . This indicates that there is a positive very low relationship between digital literacy of library staff and delivery of services in academic libraries in Taraba State, Nigeria

Test of Hypothesis

HO₁: There is no significant relationship between digital literacy of librarians and delivery of services in academic libraries in Taraba State, Nigeria.

Table 4: Regression analysis of the relationship between digital literacy of librarians and delivery of services in academic libraries in Taraba State, Nigeria

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.547	1	.547	3.177	.078 ^b
Residual	18.427	107	.172		
Total	18.974	108			

Df= degree of freedom, F = F-calculated, Correlation is significant at the 0.05 level (2-tailed)

Data in Table 4 shows a p-value of 0.08 which is greater than the alpha value of .05. This implies that there is no significant relationship between the digital literacy of library staff and delivery of services in academic libraries in Taraba State, Nigeria. Therefore, the hypothesis that a significant statistical relationship does not exist between digital literacy of library staff and delivery of services in academic libraries in Taraba State, Nigeria was not rejected.

Discussion of Findings

Having looked at the digital literacy skills possessed and the library services delivered by librarians in academic libraries in Taraba State, Nigeria, as captured in Tables 1 and 2, the finding of the study showed a non-significant positive very low association between such digital literacy skills of library staff and delivery of services in academic libraries in Taraba State, Nigeria. This flows from a correlation coefficient of 0.17 obtained, which represents a positive and very low relationship between digital literacy and delivery of services in academic libraries in Taraba State, Nigeria. Furthermore, the test of HO₁ with a p-value 0.08 indicates that the correlation coefficient is insignificant. This proves that a significant relationship does not exist between digital literacy of librarians and delivery of services in academic libraries in Taraba State, Nigeria.

Further on the result, there is a clear indication that the librarians are found with a slight digital literacy skill. The digital literacy skills possessed by these librarians include the abilities to use the Internet in search of information, use the Internet to communicate information, conduct website evaluation, use Boolean logic, and design a database. The implication is that the majority of the librarians in academic libraries in Taraba State are lacking in the areas of having the ability to: use the computer systems for information dissemination, use different software, design a simple webpage, obtain product keys for software, and populate a database. However, the positive association is in agreement with the thinking of the researcher, believing that digital literacy which is the ability to use and manipulate digital technologies and the steady adoption of such technologies in library services delivery would enhance quality library services delivery but contradicted by the very low association.

In any case, with the low possession of digital literacy, it is assumed to be directly possible for the present study to fully align with the earlier study of Emiri (2015) which investigated the

digital literacy skills among librarians in university libraries in the 21st century in Edo and Delta States, Nigeria and found such skills to be low among the librarians studied. On the other hand, the present study cannot fully align with that of Anyaoku, et. al. (2015), which investigated the information literacy practices of librarians in universities in South East Nigeria and found that the librarians are highly skilled in Internet information search and retrieval. However, the finding that librarians in universities in South East Nigeria are least at creating web pages, use of reference managers and Boolean search techniques as reported by Anyaoku, et. al. (2015) may not fully apply to the librarians in academic libraries in Taraba State, hence, a little variation in findings. The variation could likely be a result of variations in time, geographical location, and respondents.

Furthermore, Okeji, et. al. (2020) assessed the digital literacy skills of 21st-century librarians in private university libraries in Anambra State and found that academic librarians in private universities in Anambra State possess digital literacy skills, which they apply in delivering of their services. To this end, a partial reflection of the finding of the present study. Consequently, the study further agrees with that of Anyaoku, et. al. (2015) who investigated information literacy skills and perceptions of librarians in colleges of education in Nigeria and reported the lowest ability of the library to carry out a search using Boolean operators and ability to use appropriate presentation software to present information. However, the study of a non-significant relationship between digital literacy of librarians and delivery of services in academic libraries in Taraba State is a clear indication that these librarians are yet to fully uncover the full potential of digital ability in delivering their services. This could be a result of different traits or inhibiting factors to the proper application of digital technologies in libraries. Except this is done, the librarians in academic libraries in Taraba State may still lack the ability to understand the pride of place of digital literacy skills in their activities.

Conclusion

It is very clear that the possession of digital literacy and delivery of services is directly proportional to library productivity and utilization in academic libraries and could be a means to achieving sanity in the information acquisition and dissemination environment. This might be why the digital literacy skills of librarians and delivery of services in academic libraries in Nigeria has been an important issue. It stems from the fact that these librarians are custodians of information and are required to understand the movement of information in different digital means before their services can be well delivered.

Based on the findings of the study, it concludes that there is an insignificant relationship between digital literacy of library staff and delivery of services in academic libraries in Taraba State, Nigeria. This can be deduced from the findings which revealed a non-significant positive very low relationship between digital literacy of librarians and delivery of services in academic libraries in Taraba State, Nigeria. The relationship being very low shows that these skills are only applied when the need arises while on the other hand, the insignificant or non-significant implies acquisition of low skills for the delivery of services. In general, the study concludes that there is a non-significant positive very low relationship between the digital literacy of librarians and

services delivery in academic libraries in Taraba State, Nigeria. This was why this study was conducted, hence filling the identified gap.

Recommendation

The implication of the results of this study and the associated recommendations as it borders on digital literacy skills of librarians and services delivery in academic libraries in Taraba State, Nigeria are as follows:

- i. Library authorities should intensify efforts in creating the understanding of digital literacy skills, their essence and application to enable the library staff to acquire more of the skills as well as apply them in the discharge of their duties.
- ii. Library authorities and management should place more emphasis on the acquisition of digital literacy skills in academic libraries by providing other sources and supporting library staff who wish to acquire such skills, either through scholarships, organization or sponsoring of conferences, workshops and other programmes.
- iii. The library staff should be encouraged to deliver more digital and ICT services to enable them to not only offer manual services but also digital services.
- iv. With the proliferation of information sources and openings, digital literacy skills should be highly regarded as among the qualities of any library staff before being employed by library authorities. There should start by redesigning the curriculum of the library schools to the 21st century standard and the industrial revolution's demand.
- v. Since digital literacy is a life-long practice, library staff in tertiary institutions should be constantly trained and retrained in digital literacy skills to remain abreast. These library staff should also be allowed to invest their digital literacy skills in the discharge of their duties, and their positive results celebrated. This will go a long way in giving the library staff zeal to acquire more digital literacy skills and apply them in their services delivery.

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