Research Paper

Assessment of the Information and Communication Technology (ICT) Literacy of Librarians in National Root Crop Research Institute, Library

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ABSTRACT

The study examined the Information and Communication Technology (ICT) literacy of Librarians in National Root Crops Research Institute (NRCRI), Library. The design adopted for the study is descriptive survey. The population of the study consists of 10 library and information professionals in National Root Crops Research Institute, Umudike. Total enumeration technique was adopted for the study, since the population size is small, manageable and accessible. The instrument for data collection used for the study is questionnaire. The data collected was presented using frequency distribution table, percentage, and mean. The findings revealed that, computers, mobile phones, television, Internet, Library oriented software, CD-ROMs, flash drive, digital camera, among others are available in the library. Also, Librarians in NRCRI possess such ICT literacy skills as Computer operation, Uploading and downloading file from the web, Digital scanner to scan document, picture etc. Save/ delete file on computer, Internet navigation, Together with Send and receiving of email, Send/receive text, audio, video using social media sites, Online Chatting, and Software for data collection and analysis. The study identified workshop, Self-study, Presentation, Organizing Conferences and seminars, Notice board, On-the-job training, Departmental lecture series, Classroom/lecture method, Institute lecture series, Television broadcast, Learned societies groups, Coaching and mentoring, and Industrial attachment as the method of acquiring ICT Literacy among Library Information Professional in NRCRI, Library. The study revealed such challenges as Inadequate funding, Inadequate ICT facilities, Low internet bandwidth, Lack of sponsorship to both national and international conference, seminar, workshop, etc, Lack of ICT policy, Lack of Internet infrastructure, Lack of Internet infrastructure, Erratic power supply, Over dependency on donor support, Inadequate ICT training of staff, and Technophobia as the challenges inhibiting the acquisition of ICT literacy skills among Library and Information Professionals in NRCRI, Library. The study recommended that, National Root Crops Research Institute should sponsor librarians to both national and international seminars and conferences to further training and development. Also, ICT facilities used for security of resources should be acquired and installed in the library as noon was available during the researchers visit.

Keywords: Information and Communication Technology, Information and Communication Technology (ICT) literacy, Library, Information Professionals, research Library.

INTRODUCTION

Information Communication Technology (ICT) has revolutionized library operations to the extent that one can no longer think of library without Information Communication Technology (ICT),

however, the ability to judiciously utilize Information Communication Technology (ICT) for meeting the objectives of the library among the library and information professional depends on the Information Communication Technology (ICT) literacy skills they possess.

Information Communication Technology (ICT) involves hardware, software as well as service provided over the web. According to Ugwuanyi (2011) defined Information Communication Technology (ICT) as any device and application used to access, manage, integrate, evaluate, create and communicate information and knowledge. These devices include but not limited to radio, television, cellular phones, computer hardware and software, network hardware and software, satellite systems, peripherals, connections to the internet, digital technologies and others. Also considered in the ICT are the services and applications used for communication and information processing functions associated with these devices. All these facilities and more have changed the way librarians provide library and information service to their user. Seena & Pillai (2014) in their view, defined Information Communication Technology as those technology that provides access to information through telecommunications.

Information Communication Technology (ICT) facilities available in libraries are computers, laptops, printers, mobile phones, internet, CCTV, library oriented software, social networking sites, cloud computing services, projector, barcode technology, RFID among others. According to Ohiwerei & Onimawo (2016) ICT is also used to describe the tools and processes to access, retrieve, store, organize, manipulate, produce, present and exchange information by electronic and other automated means. These include hardware, software and telecommunications in the forms of personal computers, scanners, digital cameras, handhelds/PDAs, phones, faxes, modems, compactable Disk and Digital video disk players and recorders,

digitalized video, radio and television and programs like database systems and multimedia applications. The bottom-line is that information technology is all applications that are computer-based for the purpose of sharing ideas, data, and other relevant information. According to Bansode & Viswe (2015) ICT tools and services are being used in libraries to manage libraries more efficiently and to cater users demand properly. Libraries are making effort to acquire these facilities for effective service delivery, however, the ability to utilize Information Communication Technology for library and information service delivery hangs on the Information Communication Technology literacy of library and information professionals in the library.

Information Communication Technology literacy are the totality of the skills and competences as well as knowledge of how to operate, access, utilize, evaluate or manipulate Information Communication Technology for a specific purpose with adequate expertise. According to Lowe & McAuley (2000) Information Communication Technology literacy can be defined as the skills and abilities that will enable the use of computers and related information technologies to meet personal, educational and labour market goals. Contributing to the definition of Information Communication Technology literacy King (2007) opines that, Information Communication Technology literacy is the ability to use digital technologies, communication tools and or networks as well as services provided by Information Communication Technology to solve information problems in order to function in the information society. According to International ICT Literacy Panel, (2002) ICT literacy is using digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society. Satpathy & Maharana, (2011) argued that in this changing library scenario, characterized by geometric increase in the application of Information

Communication Technology in the library service delivery, library and information professionals must possess adequate ICT skills to manage the modern libraries so as to meet the information needs of the library users for increased productivity.

Recently, Nigeria government is singing the song of economic diversification, with greater focus on agriculture. The National Root Crops Research Institute (NRCRI) is one of the agricultural research institute established to conducts research into genetic improvement of economically important root and tuber crops such as cassava, yam, cocoyam, sweet potato, Irish potato, ginger, rizga, Hausa potato, sugar beets and Turmeric. It also researches subjects such as crop cultivation techniques, storage, processing and utilization of the crops, concentrating on requirements of farmers in the south-east zone of Nigeria. It also researches subjects such as crop cultivation techniques, storage, processing and utilization of the crops, concentrating on requirements of farmers in the south-east zone of Nigeria. The institute provides training of middle level agricultural workers, awarding National Diplomas and Higher National Diplomas and providing specialized vocational training to farmers. Part of the actualization of the above objectives, led to the establishment of National Root Crops Research Institute (NRCRI) library to provide library and information resources and services in whatever format both print and electronic to meet the information needs of the Institute staff and researchers so as to improve their productivity and job performance. More also, Like any other research library, NRCRI library was established to support the research activities of research fellows, and society etc. hence, effective information services delivery is at the core of their service. It is an established fact that no library can provide effective library services without qualified and component library staff. Currently, it appears that there has not been any frame work put forth to assess if an individual has achieved ICT literacy to function successfully in a knowledge-based society. There is no such study among library and information professional in NRCRI that exits in the literature available to the researcher as at present. Hence, the need for a study of this nature to fill the knowledge gap.

From the above it is clear that the Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library has a great deal of mandate which cannot be met in this era of ICT without adequate ICT literacy. These issues make it necessary to study the ICT literacy needed for the library and information professionals in this changing scenario. Since no previous study to the best knowledge of the researcher has been conducted with similar purpose in National Root Crops Research Institute (NRCRI), Library, Umudike, Abia State.

Objective of the Study

The main Objective of the study is to assess the Information and Communication Technology (ICT) literacy of Librarians in National Root Crops Research Institute (NRCRI), Library. Specifically, the following Objectives guided the study to:

1. Identify the Information and Communication Technology facilities available in National Root Crops Research Institute (NRCRI), Library.
2. Assess the ICT literacy skills possessed of Librarians in National Root Crops Research Institute (NRCRI), Library
3. Investigate the methods of acquiring Information and Communication Technology (ICT) literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library
4. Identify the challenges inhibiting the acquisition of ICT literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library
5. Proffer strategies to enhance ICT literacy skills acquisition among Librarians in National Root Crops Research Institute (NRCRI), Library

Research Questions

The following research questions were carefully formulated to guide the study:

1. What are the Information and Communication Technology facilities available in v Library?
2. What are the ICT literacy skills possessed by Librarians in National Root Crops Research Institute (NRCRI), Library?
3. What are the methods of acquiring Information and Communication Technology (ICT) literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library?
4. What are the challenges inhibiting the acquisition of ICT literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library?
5. What are the strategies to enhance ICT literacy skills acquisition among Librarians in National Root Crops Research Institute (NRCRI), Library?

LITERATURE REVIEW

In an empirical study conducted by Ugwuanyi (2011) on the Influence of Information Communication Technology (ICT) Literacy Skills on its application for library use among academic Librarians in South East Nigeria. The study was guided by six research questions. Descriptive survey design was adopted in carrying out the study. The population of the study was made up of 93 librarians in 4 federal Universities in South East Geo-political zones of Nigeria. The study revealed that Computers, internet Interconnectivity, CD-ROM, Power print projector, Digital camera, scanners, and printers etc. as the Information Communication Technology (ICT) facilities available. It was also found out that the ICT literacy skills among the academic librarians are high. Furthermore, it was found out that formal and informal education, colleagues, self-study, training at work place, attending IT programme and

workshops/seminars are methods of acquiring ICT literacy skills. The study also revealed that ICT literacy is required to effectively utilize the ICT applications in the library. Financial problems and poor ICT infrastructure are the most serious hindrances to the acquisition of ICT literacy skills as revealed by the study. It equally showed that the use of public awareness platform, applied ICT literacy, NGOs and Government collaboration enhance ICT literacy skills acquisition. Though, this study has similar objective as the present study, it was conducted in university libraries while the present study will be conducted in research institute library.

In another study carried out by Bansode & Viswe (2015) on exploring ICT literacy among library professionals working in university libraries in Marathwada Region. The findings of this study show among others things that maximum library professionals are ICT literate and have significant basic ICT skills to handle the library. The study identified Self Study, trial and error method, formal education and training, training at workplace, through friends and colleagues, attending seminars and workshops among others as the methods of acquiring ICT skills by the library professionals. As to the Constraints and Obstacles in acquiring ICT skills, the study identified lack of funding, tight working schedule, Inadequate training, Lack of awareness, Hence it is recommended that the library professionals should be encouraged and deputed by the authority to attend seminars, workshops, conferences and training programmes on ICT based resources, services and tools.

Oguche (2017) In an empirical study on the Assessment of staff ICT literacy competence in Nigerian federal university libraries. A major finding of the study revealed that over 60% of the respondents were competent in sending emails, use of search engines, the use of Microsoft application software such as Ms Word and Ms Power Point. The study concluded that the level of ICT literacy competence among

the library staff in the Nigerian federal university libraries studied is on the average. Seena & Pillai (2014) also carried out a study on ICT skills among library professionals in the Kerala University Library System. The analyses revealed that the library professionals in the Kerala University library system have relatively average level skills in various ICT related tasks in libraries. Majority of the professionals indicated that the main constraint in the application of ICT in libraries is inadequate training in ICT applications. Angeline & Rani (2015) in a similar study conducted on the ICT Literacy among Library Professionals Working in Selected Arts and Science Colleges in Trichy and Tanjore District: Affiliated to Bharathidasan University. The findings shows that, Majority of the professionals had confidence in routine ICT Skills and Internet tasks but needed training application of these skills in Libraries. Thanuskodi (2011) also carried out an analytical study on the ICT literacy among library professionals in the engineering college libraries of Tamil Nadu. The study found that the respondents indicated that 95.1% of professionals have knowledge in computer fundamentals, 81.1% in Internet, 42.7% in multimedia and only a very few professionals 29.3% have knowledge in computer programming. Umeji, Ejedafiru & Oghenetega (2013) in a study on the Information /Ict Literacy Levels and Skills among Librarians in Madonna University Library, Okija. Findings showed that librarians studied has very low literacy levels/skills. From the study it was found out that the librarians didn't have information/ICT literacy/skills because of major challenges facing them such funds, time, environment of the system. The study recommended that, the staff should be allow and sponsored to both national and international conferences. Librarians should try to go for more training and retraining in ICT facilities and read wide to increase their knowledge in area of library and information services etc.

METHODOLOGY

The study adopted descriptive survey research design. This design according to Nworgu (2015) aims at collecting data on a particular research topic and describing in a systematic manner, the characteristics, features or facts about a given population. The population of the study consists of 10 library and information professionals in National Root Crops Research Institute, Umudike. These consist of library and information professionals in Library unit of the institute. Total enumeration technique was adopted for the study, since the population size is small, manageable and accessible. Hence, there was no sample or sampling technique adopted for the study. The instrument for data collection used for the study is questionnaire and observation checklist. A structured questionnaire titled: Assessment of ICT Literacy among Library and Information Professionals Questionnaire (AICTLLIPQ). The questionnaire was divided into two parts. Part A focused on the demographic information of the respondents, while Part B, focused on the five research questions that guided the study. The observation checklist was used to identify the ICT available in the institute library. Data collected was analyzed using frequency distribution table, percentage and mean. The mean was interpreted in line with the 4 point scale ranging from four (4) highest to one (1) lowest. For decision making, the lower limit of the high degree response category, which is 2.50, was used as the cutoff point. Any item with a mean response of 2.50 and above was accepted as an influencing factor.

RESULTS

The presentation and analysis were carried according to the research questions that guided the study. Out of 10 questionnaires distributed, 9 representing 90% response rate.

Table 1: Gender Distribution of Respondents

Gender	Frequency	Percentage
Male	3	33.3
Female	6	66.7
Total	**9**	**100**

Table one above shows the gender distribution of respondents. Based on the table, out of nine 9 respondents studied, 3(33.3%) are male. While 6(66.7%) were female.

Table 2: Distribution of Respondents Based on Year of Study

Highest Education Qualification	Frequency	Percentage
ND/NCE	0	0
HND/Bsc	7	77.8
MLIS/Msc	2	22.2
Total	**9**	**100**

Table two above shows the highest education qualification of respondents. Based on the table, out of 9 respondents studied, 7(77.8%) has HND/Bsc. While 2(22.2%) has MLIS/Msc.

Table 3: Distribution of Respondents Based on Year of Study

Year of Experience	Frequency	Percentage
0-10 years	3	33.3
11-20 years	6	66.7
21-35years	0	0
Above 35years	**9**	**100**

Table two above shows the highest education qualification of respondents. Based on the table, out of 9 respondents studied, 3(33.3%) are between the ages of 0-10years. 6(66.7%) are between the ages of 11-20years.

Table 4: observation checklist on the Information and Communication Technology facilities available in National Root Crops Research Institute (NRCRI), Library

S/N	Items	AVAILABLE	NOT AVAILABLE
1	Computers	√	
2	Internet	√	
3	Mobile phone	√	
4	Radio		√
5	Television	√	
6	Library oriented software	√	
7	CD-ROMs	√	
8	Flash Drive	√	
9	e-mail	√	
10	Fax machine		√
11	CCTV		√
12	Digital camera	√	
13	RFID Technology		√
14	Barcode technology		√
15	Social networking sites(facebook page, twitter, etc		√
16	LAN		√
17	WAN		√
18	Intranet		√
19	Intercom		√
	Total	**9**	**10**

Table 5: mean response on the ICT literacy skills possessed by Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library

S/N	Items	SA	A	D	SD	Mean	Decision	Rank
1.	Computer operation	5	4	0	0	3.56	Accepted	1st
2.	Uploading and downloading file from the web	5	2	1	1	3.22	Accepted	2nd
3.	Digital scanner to scan document, picture etc	4	4	1	0	3.22	Accepted	2nd
4.	Save/ delete file on computer	5	1	1	2	3.00	Accepted	3rd
5.	Internet navigation	3	4	2	0	2.89	Accepted	4th
6.	Send and receiving of email	4	2	1	2	2.89	Accepted	4th
7.	Send/receive text, audio, video using social media sites	4	1	3	1	2.89	Accepted	4th
8.	Online Chatting	4	1	3	1	2.89	Accepted	4th
9.	Software for data collection and analysis	3	3	2	1	2.89	Accepted	4th
10.	Formatting CD-ROMs	2	3	4	0	2.78	Accepted	5th
11.	Upload catalogue entries to OPAC	3	2	3	1	2.78	Accepted	5th
12.	Website Design	3	1	4	1	2.67	Accepted	6th
13.	Design a database using online or electronic tools	2	3	3	1	2.67	Accepted	6th

Tables four above shows the observation checklist on the Information and Communication Technology facilities available in National Root Crops Research Institute (NRCRI), Library. From the table the ICT facilities mostly available are computers. CD-

ROMs, Flash drive, Television, Library oriented software, Internet, and Digital camera. Based on the table ICT facilities **not** available are; CCTV, LAN and WAN, Intercom and Intranet, RFID technology, Social networking sites(facebook page, twitter, etc.

Table five above shows the mean response on the ICT literacy skills possessed by Library and Information Professionals in National Root Crops Research Institute (NRCRI), , Library. From the table the major ICT literacy skills possessed by Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library are; Computer operation, with 3.56 mean score, ranked 1st. followed by Uploading and downloading file from the web, with 3.22 mean score, ranked 2nd. Digital scanner to scan document, picture etc, with 3.22 mean score also ranked 2nd. Save/ delete file on computer, with 3.00 mean score, ranked 3rd. Internet navigation, with 2.89 mean score, ranked 4th. Together with Send and receiving of email, 2.89 mean score. Send/receive text, audio, video using social media sites, with 2.89 mean score. Online Chatting, with 2.89 mean score. Software for data collection and analysis, with 2.89 mean score.

Table 6: mean response the methods of acquiring Information and Communication Technology (ICT) literacy skills among Library and Information Professionals in NRCRI, Library

S/N	Items	SA	A	D	SD	Mean	Decision	Rank
1	Workshop	6	2	1	0	3.56	Accepted	1st
2	Self-study	7	1	0	1	3.56	Accepted	1st
3	Presentation	5	3	1	0	3.44	Accepted	2nd
4	Organizing Conferences and seminars	5	2	2	0	3.33	Accepted	3rd
5	Notice board	6	1	1	1	3.33	Accepted	3rd
6	On-the-job training	3	5	1	0	3.22	Accepted	4th
7	Reading newsletters	4	2	3	0	3.11	Accepted	5th
8	Staff circular	5	2	2	0	3.11	Accepted	5th
9	Penal discussion	2	6	1	0	3.11	Accepted	5th
10	Online group	4	2	2	1	3.00	Accepted	6th
11	Create a websites for the staff	3	4	1	1	3.00	Accepted	6th
12	Receiving information from colleague	2	5	2	0	3.00	Accepted	6th
13	Departmental lecture series	2	4	3	0	2.89	Accepted	7th
14	Classroom/lecture method	2	4	3	0	2.89	Accepted	7th
15	Institute lecture series	2	3	4	0	2.78	Accepted	8th
16	Television broadcast	3	3	1	2	2.78	Accepted	8th
17	Learned societies groups	3	2	3	1	2.78	Accepted	8th
18	Coaching and mentoring	1	5	3	0	2.78	Accepted	8th
19	Industrial attachment	2	4	2	1	2.78	Accepted	8th
20	Posters	3	2	2	2	2.67	Accepted	9th
21	Online course	2	2	4	1	2.56	Accepted	10th
22	Job rotation	1	4	3	1	2.56	Accepted	10th
23	Special training	1	3	4	1	2.44	Rejected	11th

Table six above shows the mean response the methods of acquiring Information and Communication Technology (ICT) literacy skills among Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library. From the table the major methods of acquiring ICT Literacy skills among Library and information Professional are; workshop, with 3.56 mean score, ranked 1st. together with Self-study, with 3.56. other methods are; Presentation, with 3.44 mean score. Organizing Conferences and seminars, with 3.33 mean score. Notice board, with 3.33 mean score. On-the-job training, with 3.22 mean score. The least methods of acquiring ICT Literacy skills are; Departmental lecture series, with 2.89 mean score. Classroom/lecture method, with 2.89 mean score. Institute lecture series, with 2.78 mean score. Television broadcast, with 2.78 mean score. Learned societies groups, with 2.78 mean score. Coaching and mentoring, with 2.78 mean score. Industrial attachment, with 2.78 mean score.

Table 7: mean response on the challenges inhibiting the acquisition of ICT literacy skills among Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library

S/N	Items	SA	A	D	SD	Mean	Decision	Rank
1	Inadequate funding	9	0	0	0	4.00	Accepted	1st
2	Inadequate ICT facilities	8	1	0	0	3.89	Accepted	2nd
3	Low internet bandwidth	7	2	0	0	3.78	Accepted	3rd
4	Lack of sponsorship to both national and international conference, seminar, workshop, etc	6	3	0	0	3.67	Accepted	4th
5	Lack of ICT policy	6	2	1	0	3.56	Accepted	5th
6	Lack of Internet infrastructure	6	2	1	0	3.56	Accepted	5th
7	Erratic power supply	5	3	1	0	3.44	Accepted	6th
8	Over dependency on donor support	5	2	2	0	3.33	Accepted	7th
9	Inadequate ICT training of staff	6	1	1	1	3.33	Accepted	7th
10	Technophobia	3	3	1	2	2.78	Accepted	8th

Table seven above shows the mean response on the challenges inhibiting the acquisition of ICT literacy skills among Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library. From the table the major challenges are; Inadequate funding, with 4.0 mean score, ranked 1st. Inadequate ICT facilities, with 3.89 mean score, ranked 2nd. Low internet bandwidth, with 3.78 mean score, ranked 3rd. Lack of sponsorship to both national and international conference, seminar, workshop, etc, with 3.67 mean score. Lack of ICT policy, with 3.56 mean score. Lack of Internet infrastructure, with 3.56 mean score. Lack of Internet infrastructure, with 3.56 mean score. Erratic power supply, with 3.44 mean score. Over dependency on donor support, with 3.33 mean score. Inadequate ICT training of staff, with 3.33 mean score. And finally, Technophobia, with 2.78 mean score.

Table 8: mean response on the strategies to enhance ICT literacy skills acquisition among Library and Information Professionals in National Root Crops Research Institute (NRCRI), Library

S/N	Items	SA	A	D	SD	Mean	Decision	Rank
1	Standard Internet infrastructure	8	1	0	0	3.89	Accepted	1st
2	Adequate ICT facilities	7	2	0	0	3.78	Accepted	2nd
3	Constant power supply	6	3	0	0	3.67	Accepted	3rd
4	Adequate ICT training	7	1	1	0	3.67	Accepted	3rd
5	Adequate funding	6	1	1	1	3.56	Accepted	4th
6	Sponsorship of staff to both national and international conference, seminar, workshop, etc	5	4	0	0	3.56	Accepted	4th
7	Independency on in house funding	5	3	1	0	3.44	Accepted	5th
8	Provision of ICT policy	5	2	2	0	3.33	Accepted	6th
9	High internet bandwidth	4	4	1	0	3.33	Accepted	6th
10	Positive ICT self-concept	4	4	1	0	3.33	Accepted	6th

Table eight above shows the mean response on the strategies to enhance ICT literacy skills acquisition among Library and Information Professionals in NRCRI, Library. From the table the major strategies are; Standard Internet infrastructure, with 3.89 mean score, ranked first. Adequate ICT facilities, with 3.78 mean score, ranked 2nd. Constant power supply, with 3.67 mean score, ranked 3rd. Adequate ICT training, with 3.67 mean score, ranked 3rd. Adequate funding, with 3.56 mean score, ranked 4th. Sponsorship of staff to both national and international conference, seminar, workshop, etc, with 3.56 mean score, ranked 4th. Independency on in house funding, with 3.44 mean score, ranked 5th. Provision of ICT policy, with 3.33 mean score, ranked 3.33 mean score. High internet bandwidth, with 3.33 mean score, ranked 6th. Positive ICT self-concept, with 3.33 mean scored, ranked 6th.

DISCUSSION OF FINDINGS

Information and Communication Technology available in National Root Crops Research Institute (NRCRI), Library.

The findings revealed that the Information and Communication Technology available in National Root Crops Research Institute (NRCRI), Library are computers, mobile phones, television, Internet, Library oriented software, CD-

ROMs, flash drive, digital camera, among others. This shows that the basic Information and Communication Technology available in National Root Crops Research Institute (NRCRI), Library. This finding is in line with that of Ugwuanyi (2011) who in a study identified Computers, internet Interconnectivity, CD-ROM, Power print projector, Digital camera, scanners, and printers etc. as the Information Communication Technology (ICT) facilities available in federal university libraries.

ICT literacy skills possessed of Librarians in National Root Crops Research Institute (NRCRI), Library

The findings revealed that, Librarians in NRCRI possess such ICT literacy skills as Computer operation, Uploading and downloading file from the web, Digital scanner to scan document, picture etc, Save/ delete file on computer, Internet navigation, Together with Send and receiving of email, Send/receive text, audio, video using social media sites, Online Chatting, and Software for data collection and analysis. This shows that Librarians in NRCRI possess above average ICT literacy skills for library service delivery. The findings is in accordance with that of Bansode & Viswe (2015) who in a previous study conducted in university library observed that maximum library professionals are ICT literate and have significant basic ICT skills to handle the library. The findings also supports that of Angeline & Rani (2015) who observed that, Majority of the library professionals studied had confidence in routine ICT Skills and Internet tasks.

Methods of acquiring Information and Communication Technology (ICT) literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library

The findings revealed that, Librarians in NRCRI acquire their ICT Literacy skills through workshop, Self-study, Presentation, Organizing Conferences and seminars, Notice board, On-the-job training, Departmental lecture series,

Classroom/lecture method, Institute lecture series, Television broadcast, Learned societies groups, Coaching and mentoring, and Industrial attachment. The above findings is in agreement with that of Ugwuanyi (2011) who identified that formal and informal education, colleagues, self-study, training at work place, attending IT programme and workshops/seminars are methods of acquiring ICT literacy skills. Also with that of Bansode & Viswe (2015) who identified that, Self Study, trial and error method, formal education and training, training at workplace, through friends and colleagues, attending seminars and workshops among others are the methods of acquiring ICT skills by the library professionals.

Challenges inhibiting the acquisition of ICT literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library

The findings revealed that the Challenges inhibiting the acquisition of ICT literacy skills among Librarians in National Root Crops Research Institute (NRCRI), Library are Inadequate funding, Erratic power supply, Lack of sponsorship to both national and international conference, seminar, workshop, etc, Inadequate ICT facilities, Low internet bandwidth, Lack of ICT policy, Lack of Internet infrastructure, Over dependency on donor support, Inadequate ICT training of staff, and Technophobia. This finding is in line with that of Umeji, Ejedafiru & Oghenetega (2013) who concluded that, librarians studied didn't have ICT literacy/skills because of major challenges facing them such funds, time, environment of the system. Also with that of Bansode & Viswe (2015) who in a study identified lack of funding, tight working schedule, Inadequate training, Lack of awareness as Constraints and Obstacles in acquiring ICT skills among Librarians.

Strategies to enhance ICT literacy skills acquisition among Librarians in National Root Crops Research Institute (NRCRI), Library

The study revealed that the Strategies to enhance ICT literacy skills acquisition among Librarians in National Root Crops Research Institute (NRCRI), Library are Adequate funding, Adequate ICT training, Constant power supply, Standard Internet infrastructure, provision of Adequate ICT facilities, Sponsorship of staff to both national and international conference, seminar, workshop, etc., Independency on in house funding, Provision of ICT policy and High internet bandwidth. This finding validates that of Ugwuanyi (2011) who observed in a study that, the use of public awareness platform, applied ICT literacy, NGOs and Government collaboration enhance ICT literacy skills acquisition. It also supports that of Umeji, Ejedafiru & Oghenetega (2013) which revealed that, the Librarians should be allow and sponsored to both national and international conferences. Librarians should try to go for more training and retraining in ICT facilities and read wide to increase their knowledge in area of library and information services

CONCLUSION

The study assessed of the information and communication technology (ICT) literacy of librarians in National Root Crop Research Institute, Library. Based on the findings, the study concluded that librarians in National Root Crop Research Institute, Library has basic information and communication technology (ICT) literacy skills required for effective library service delivery. Also the study concluded that information and communication technology (ICT) literacy skills among librarians in National Root Crop Research Institute, Library was acquired through workshop, Self-study, Presentation, attending Conferences and seminars, formal education among others. based on the findings the study also, concluded that Inadequate funding, Erratic power supply, Lack of sponsorship to both national and international conference, seminar, workshop, etc, are the major challenges

limiting the level of information and communication technology (ICT) literacy among librarians in National Root Crop Research Institute, Library. Though, the librarians possess Basic ICT literacy, more training are required to acquire advance ICT literacy like web design and innovative ICT literacy which leads to invention among others.

Recommendations

Based on the findings and conclusion drawn, the following recommendations were suggested:

1. The National Root Crops Research Institute should sponsor librarians to both national and international seminars and conferences to acquire advance ICT literacy.
2. Also, ICT facilities used for security of resources should be acquired and installed in the library as noon was available during the researchers visit.
3. The library management should adopt social networking sites for effective library service delivery.
4. The librarians should apply their ICT literacy skills in acquiring electronic information resources.
5. The library management should mandate the librarians to frequently utilize we based resources and service for effective service delivery.

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