Strategic Information Access Tools for Dissemination of Information in Academic Libraries in a Digital Era in Nigeria.

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1.0   Introduction

1.1   Background to the Study

Digital revolution characterizes today's library practices and poses tremendous challenges to the services of many academic libraries, especially in the developing countries like Nigeria. Although information remains a crucial asset for enhancing effective and efficient decision-making, but the dissemination of information has been seriously influenced by the present digital transformation. Digital era is associated with a system of sharing information through digital network or digital facilities. In a digital era, information resources such as; texts, audio, video, files, and other electronic information resources can be created, stored, organized, accessed, retrieved, transmitted and utilized with ease, accuracy and convenience through digital facilities (Mayega, 2008).

Information refers to facts obtained from various sources or media use in reshaping the vision, thoughts, understanding and actions of individuals or groups (Kolawole & Igwe, 2016). Information is what keeps a system going. The steady flow of information, whether through digital tools or manual systems keep human society alive, and serves as a prime agent for actions and social transformation. Information pervades all societal constituents, processes and every act of human society to make life meaningful and richer. It facilitates the realization of man's full potentials and achievements. According to Okezie (2015) information is naturally in abundance in various formats and from various sources with intrinsic value. It has the capability to alter positions, views, persons, situations, as well as mindsets. Information can be transferred from person to person and from place to place, manually or digitally.

However, information that is not accessible is information that is not useable. This underpins the perspective of the United Nations Development Programme (UNDP), as cited in Amadi, Udoh and Ekpenyong (2020), which posit that information that is available and useful, is that information that is accessible. Hence, accessing information from the academic libraries facilitates the attainment of learning, teaching, research and scholarship which are the core objectives that the academic institutions are meant to foster. In this wise, students should access information for successful academic growth and self-development. Lecturers and scholars should also access information for effective teaching, research and scholarship purposes. Therefore, effective dissemination of information resources require the utilization of specific and strategic information access tools, which are either digitally aided or in manual formats. In the view of Capurro and Hjorland (2003), library information resources can only experience effective utilization, if the information access tools in use are functional and flexible to facilitate dissemination of information resources. This is because information access tools are the basic building blocks for a system that will recognize recorded information that is collected by academic libraries. These tools help in accessing, indexing, and classifying the information available both in the traditional academic libraries and on the web in order to benefit academic library's users (Nwosu & Ottong, 2014).

From the above standpoint, strategic information access tools enhance the ease with which information resources within the holdings of the academic libraries are disseminated. Strategic information access tools involve all conscious efforts targeted towards the dissemination of information resources. According to Nwosu and Ottong (2014) strategic

information access tools are the systems created for the access and retrieval (dissemination/distribution) of recorded information. Information access tools, also known as, information retrieval devices are strategically fundamental and indispensable for the dissemination of information to the diverse users of the academic libraries. Reitz (2004) posits that information access tools are the processes, methods or procedures used to selectively and effectively recall recorded information from a collection of information resources. Strategic information access tools promote information search, access and retrieval. As strategic, information access tools are the key that unlock the holdings of any academic library. Strategic information access tools are pointers, indicators, cursors or keys that unlock the holdings of the academic libraries for effective identification, location, retrieval and maximum utilization of information resources by users (Dike & Edem, 2015; Nnadozie, 2007). They are engaged to disseminate information resources in electronic form, in databases, digital libraries, and networks (Ajiboye, Oyedipe & Alawiye, 2013). They facilitate easy, convenient, fast and alternate access to and/or retrieval of information resources for the purpose of satisfying the information needs of users of the academic libraries. They help in the dissemination of information in the academic libraries, which is the hallmark of the academic library's existence. They serve as the mechanisms for effective and easy provision of information resources to academic library clienteles and staff, including faculty members and non-academic staff; which enhance their teaching, learning, research and aesthetic enjoyment.

In a digital era, which involves the sharing of library information resources through digital facilities, there is absolutely a paradigm shift from a total reliance on manual information access tools to either; a fully digitized system of information search and retrieval via virtual library or an integration of a hybrid system of traditional access tools with digital information access tools. In fact, it is the aim of the libraries and librarians to ensure that information access tools, including; catalogue cards, indexes, bibliographies, abstract and kardex cards are effectively utilized to facilitate dissemination or access to information (Dike & Edem, 2015). These tools have so far transformed from manual formats to electronic or digitized formats. For example, the advancement in information and communication technology (ICT) have brought about such electronically/digitally moderated access tools as; Online Public Access Catalogue (OPAC) for virtual access to collections and other online bibliographic databases like DIALOG or OVID for access to remote information resources (Dike and Edem, 2015). There are equally a variety of information access tools in a digital era that have come to enhance the dissemination of information resources by academic libraries. These, in fact, includes: computers, Internet, Websites, smartphones, iPods, Online Public Access Catalogue (OPAC), Machine Readable Catalogue (MARC 21), Computer Output Microfilm (COM), electronic bibliographies (eBiblio), subject gateways, subject directories, metaSearch tools, Dublin Core, CD-ROMS, Web directories, online bibliographic databases, Internet search engines, etc. Specifically, the Internet and specialized databases have brought about several new generations of desktop searching tools that allow academic libraries to disseminate information from various sources for users' quick access and utilization of information (Ajiboye, Oyedipe & Alawiye, 2013; and Nwosu & Ottong, 2014).

As a matter of fact, strategic information access tools are absolutely necessary for effective dissemination of information resources in any user-centered academic library. Such strategic information access tools must be incorporated and implemented to help the academic libraries in fulfilling their objectives of enhancing the dissemination of information resources

with the necessary speed, accuracy, cost-effectiveness, and convenience in order to satisfy information users' needs, both manually and digitally. Therefore, based on this perspective, this study examines the strategic information access tools for dissemination of information resources in academic libraries in a digital era in Nigeria.

1.2   Statement of the Problem

With the current trends and increasing flow of information necessitated by digital transformation, academic libraries can no longer rely on analogue information access tools for dissemination of information. However, observation shows that strategic information access tools as the gateways and keys for unlocking the intellectual, educational, informational and recreational collections in academic libraries are not adequately provided and utilized in the dissemination of information. In fact, scholars point out that most academic libraries in Nigeria are confronted with numerous impediments that hinder their potentials for enhanced dissemination of available information in a digital era (Ajiboye, Oyedipe & Alawiye, 2013; Dike & Edem, 2015; Nwosu & Ottong, 2014). These factors include: inadequate trained professional staff, insufficient information and communication technology (ICT) facilities such as computers and bandwidth, low ICT literacy skills, lack of internet services for disseminating information from online databases, epileptic power supply, etc. Based on this backdrop, this study examines strategic information access tools for dissemination of information resources in academic libraries in a digital era in Nigeria, using Michael Okpara University of Agriculture, Umudike (MOUAU) Library, as a case study.

1.3   Research Objectives

This study examines strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria. The specific objectives are to:-

i.   identify strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria.
ii.   identify the benefits of strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria.
iii.   find out factors militating against strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria.
iv.   suggest measures to overcome the factors that militate against strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria.

2.0 Literature Review

Information refers to any entity that can be used to resolve uncertainty or provides answers to a question of some kind (Merriam-Webster Dictionary, 2017). It relates to data and knowledge. However, data represents values associated with parameters, while knowledge denotes understanding of real things or abstract concepts. Information is conveyed either as the content of a message or through direct or indirect observations, which may be perceived to be constructed as a message in its own right, and in that sense, information is always conveyed as the content of a message (Reitz, 2004). It is also news or facts about something, knowledge received or communicated concerning a particular fact or circumstance (Ojedokun, 2007). Information is understood to mean different things to different people due to their various backgrounds (Uhegbu, 2007). In this wise, librarians, information practitioners, ordinary users of information, traders, scientists, company executives, and other categories of information users understand information from their various perspectives.

Information dissemination or dissemination of information is the process of sharing information or knowledge or the means of communicating the information sources in the libraries to users or seekers (Aguolu & Aguolu, 2002). In the same vein, Fourie (2001) posits that dissemination of information refers to the distribution of information to the users, and this information could be of any type and its subtypes. Similarly, Dawra (2003) avows that dissemination of information keeps library users well-informed and updated in their fields of basic interest and in their related subjects. It involves the provision of information or information resources in anticipation of information users' demands and gears toward ensuring that available information reaches those who are in need of it, in a more systematized and effective manner. Dissemination of information is a fundamental and an integral aspect of librarianship and information services, which facilitates the attainment of the objectives of the libraries. Dissemination of information is precursory to the utilization of information resources available in academic libraries. It enhances or pushes the frontiers through which the academic libraries help their users to accomplish their educational, informational, research, recreational and intellectual needs. This is even the reason why the American Library Association (2001) opines that dissemination of information is possible through a systematic collection, organization, and storage of information relevant to the needs of the users.

In the light of the above, information that can be disseminated must be in recorded, documented, and well-captured formats, manually or electronically. Hence, Adomi (2012); Nnadozie (2014); Okezie (2015), in their various researches agree that information that can be disseminated are recorded in diverse sources, either in print or electronic formats such as: textbooks, journals, conference proceedings, research reports (e.g. projects, theses and dissertations), newspapers, magazines, research monographs, standards, patents, trade literature, indexes, abstracts, bibliographies, treatises, reference materials, among other print and non-print information resources. Consequently, Dawra (2003) points out that dissemination of information may be provided through two kinds of services. Firstly, dissemination of information that are directed towards individuals or groups of users, through circulation of materials in anticipation to individuals' interests, routing of periodicals, selective dissemination of information (SDI), communication of information to individuals through information conversation or via telephone. Secondly, dissemination of information that are directed towards all users of the academic libraries via accession lists, bibliographies, catalogue cards, kardex cards, indexing, abstracting, bibliographic survey, literature search, etc.

Specifically, Nwosu and Ottong (2014) define information access tools as the pragmatic, systematic or strategic approaches designed for the access or retrieval of recorded information. These information search, access or retrieval tools are conscious efforts of the libraries and librarians to facilitate the dissemination of information resources in their holdings to the users in order to enhance utilization of information resources. Information access tools helps in maximizing the dissemination of library resources (Okezie, 2015). According to the New Encyclopedia Britannica (2010) information access and retrieval tools involves the reception, organization, storage and dissemination of information by libraries, on one hand, and facilitates the utilization of information by users or seekers, on the other hand. In a study carried by Abdulkadir and Mohammed (2015), information access tools greatly facilitate the operation by which documents are selected from the holdings of the libraries to meet the needs of the users. This is because the availability of information in a library does not necessarily mean its accessibility, not to speak of its use (Onyenachi, 2012). Hence, information flows to the point of use through a sequence of stages from information availability-accessibility-retrieval and information utilization (Onyenachi, 2012). Nwosu and Ottong (2014) further aver that information access and retrieval tools are the basic building blocks that facilitate recorded information to be disseminated by libraries and other information centers to their users.

Information access tools are strategically indispensable for a system of recorded information collected in libraries, archives, museums and other information agencies (Ajiboye, Oyedipe & Alawiye, 2013). Strategic information access tools enhance effective dissemination of information from the universe of recorded knowledge in any academic library by helping the search, access, retrieval and utilization of information. As strategic instruments, information access tools enhance the function of disseminating information in the libraries, from the librarians' perspective, and enhances the discovery of the documents which may be useful to users' information needs, regardless of the language such information is written (Aguolu & Agoulo, 2002). However, based on several studies and literature searches, strategic information access tools, which could be manually or electronically applied by academic libraries in the dissemination of information, include: library catalogue, kardex card, bibliographies, indexes, abstracts, subject gateways, directories, OPAC, MARC 21, Computer Output Microfilm (COM), Dublin Core, CD-ROMS, online databases, Internet search engines, etc., (Abdulkadir & Mohammed, 2015; Aguolu & Aguolu, 2002; Ajiboye, Oyedipe & Alawiye, 2013; Dike & Edem, 2015; Nnadozie, 2007; Nwosu & Ottong, 2014; Okezie, 2015; Onyenachi, 2012; Reitz, 2004).

Strategic information access tools assures a variety of benefits to academic libraries by enhancing the speed, accuracy, convenience, and dexterity in their responsibilities of disseminating information resources by promoting the identification, location, interpretation, retrieval and utilization of information resources (Okezie, 2015). They also help academic libraries to provide bibliographic details about information resources by showing the author's name (s), title, edition, publishers, date of publication, place of publication, illustration, dimension, bibliographies, indexes, series, and standard number (Chimah & Nwokocha, 2013; Dike & Edem, 2015; Nnadozie 2010; Nwosu & Ottong, 2014). Strategic information access tools also enhance the ability of the academic libraries to manage and keep tracks of their holdings as well as saving the time and efforts of information users. In fact, the strategic information access tools assist academic libraries to easily ascertain the propensity of meeting information users' needs with their current holdings and creating the opportunity for planning the acquisition of future information needs. In a nutshell, strategic information access tools promote the

acquisition, content analysis, content presentation, files creation and search of information resources (Ashikuzzaman, 2015). This in turn helps library users to trace information materials available in the academic libraries and in other online sources, including the internet, for satisfying their informational, educational, and research needs.

However, Ingutia-Oyieke and Dike (2010) carried out a study, which point out the major barriers to strategic information access tools for dissemination of information in a digital era include; inadequate information and communication technology (ICT) infrastructures and poor ICT skills of academic library staff to navigate, search, access, retrieve and use electronic resources like the Online Public Access Catalogue (OPAC), Internet search engines and other online databases in disseminating information. In this study, frequent power outage in academic libraries, inadequate/mal-functional computers, technophobia, poor internet bandwidth, poor knowledge of the workings of OPAC, MARC 21 and Dublin Core as digital information access tools were also identified as challenges inhibiting the dissemination of information in academic libraries in a digital era. Also, Abdulkadir and Mohammed (2015); Dike and Edem (2015) in their studies identified poor training of academic library staff as well as poor funding of academic libraries as the problem hampering strategic information access tools in the dissemination of information in academic libraries in digital era. Studies also revealed some measures that can be adopted to enhance information access tools for dissemination of information in academic libraries to include: provision of ICT related training to enhance ICT skills on how to install and operate OPAC, MARC 21, Dublin Core; including information literacy skills, provision of adequate processing tools, training of staff on technical services, improved power supply in academic libraries, improved interest on the use of new technologies by academic library staff and provision of adequate funding to academic libraries (Abdulkadir & Mohammed (2015; Fordjour, Badu & Ajei, 2010; Nwosu & Ottong, 2014).

Moreover, throughout this study, no evident was found relating to strategic information access tools for the dissemination of information resources in Michael Okpara University of Agriculture, Umudike Library, with specific interest on digital facilities. Hence, this study intends to fill this gap.

3.0   Methodology

This study is a descriptive survey design. The population is forty-six (46) library staff, comprising academic librarians, para-professional staff and library assistants from the Michael Okpara University of Agriculture, Umudike, (MOUAU) Library. However, Michael Okpara University of Agriculture, Umudike, (MOUAU) Library, is located in Abia State, South-East zone of Nigeria. It is located along the Umuahia - Ikot Ekpene federal highway. The complete census sampling technique is adopted since the entire population is small and manageable in size based on the recommendation of Nworgu (2015). A 4-point structured questionnaire titled: "*Questionnaire on Strategic Information Access Tools for the Dissemination of Information Resources in a Digital Era in Academic Libraries in Nigeria*", was used for data collection. The questionnaire instrument was designed with closed-ended questions and distributed by the

researchers. 46 copies were distributed to the respondents, out of which, 43 copies representing 96% were completed with valid information and used for the analysis. The data collected were analysed using the descriptive statistics of mean scores and frequency counts in accordance with the Statistical Package for Social Sciences (IBM-SPSS Version 23). A-4 point scale was used to determine the degree of agreement or disagreement in each of the item statements. The criterion mean of 2.50 was used to ascertain the level of agreement or disagreement in each case. This implies that any mean score below 2.50 indicates disagreement while item statements with mean sores of 2.50 and above indicate agreement. The presentation of results was done using frequency tables.

4.0 Results and Discussion of Findings

Table 1: Questionnaire Distribution and Response Rate

Staff Categories	Questionnaire Distributed(QD)	% Rate of QD	Questionnaire Retrieved (QR)	% Rate of QR
AL	13	28%	13	28%
PPS	16	35%	15	34%
LA	17	37%	15	34%
Total	**46**	**100**	**43**	**96%**

KEYS: **AL**=*Academic Librarians*, **SPS**=*Para-professional Staff*, **LA**=*Library Assistants*

Table 1 shows the questionnaire distribution and response rate. It indicates that out of the forty-six (46) copies of the questionnaire distributed, 43 copies representing 96% were completed and retrieved with valid information. It further reveals that the 13 copies distributed to the academic librarians were all completed and returned 13 (28%), while the para-professional staff and library assistants completed and returned 15 copies (34%), respectively. Therefore, the tools of 43 respondents (96%) are used throughout the analysis.

Table 2: Mean Responses on the Strategic Information Access Tools for Dissemination of Information in Academic Libraries in a Digital Era (n = 43)

S/No.	Item Statements	SA	A	D	SD	Mean	Decision
1.	Library catalogue	15	18	5	5	3.00	Agreed
2.	Indexes	10	20	6	7	2.77	Agreed
3.	Bibliographies/ebiblios	10	15	8	10	2.58	Agreed
4.	Abstracts	12	13	10	8	2.67	Agreed
5.	Library guide to literature	8	18	10	7	2.63	Agreed
6.	Accession lists	5	20	15	3	2.63	Agreed
7.	OPAC	2	15	20	6	2.30	Disagreed
8.	Machine Readable Catalogue (MARC 21)	-	7	28	8	1.98	Disagreed
9.	Dublin Core	-	8	30	5	2.07	Disagreed
10.	Online databases/CD-ROMS	13	17	9	4	2.91	Agreed
11.	Subject gateways	5	7	25	6	2.26	Disagreed
12.	Internet search engines	18	15	6	4	3.09	Agreed

13.	Kardex cards	9	18	11	5	2.72	Agreed
14.	Computer Output Microfilms	7	21	12	3	2.74	Agreed
	Grand Mean					*2.60*	*Agreed*

Criterion Mean =2.50.

Table 2 presents the strategic information access tools for dissemination of information in a digital era in MOUAU Library. The table reveals that internet search engines (3.09), library catalogue (3.00), online databases/CD-ROMs (2.91), indexes (2.77), computer output microfilms (2.74), kardex card (2.72), abstracts (2.67), library guides to literature (2.63), bibliographies/ebiblios (2.58), and accession lists are the strategic information access tools in the library understudy. On the other hand, the study shows that OPAC (2.30), MARC 21 (1.98), Dublin Core (2.07), and subject gateways (2.26) were not considered as strategic information access tools in the library understudy to disseminate information to users. However, this finding agrees in some ways with the studies conducted by Abdulkadir and Mohammed (2015); Ajiboye, Oyedipe and Alawiye (2013); Dike and Edem (2015); Nwosu and Ottong (2014) and Okezie (2015), which revealed that information access tools for dissemination of information in academic libraries include: library catalogue, kardex card, bibliographies, indexes, abstracts, subject gateways, directories, OPAC, MARC 21, Computer Output Microfilm (COM), Dublin Core, CD-ROMS, online databases, and Internet search engines. Moreover, the above presentation shows a positive result that, although some items of the questionnaire were disagreed upon as falling below the *2.50 criterion mean*, but the *Grand Mean is 2.60,* which is above the 2.50 decision level. That is, **2.60>2.50.** Hence, these strategic information access tools are dispensable for dissemination of information in MOUAU Library in this digital era.

Table 3: Mean Responses on the Benefits of Strategic Information Access Tools for Dissemination of Information in Academic Libraries in a Digital Era (n = 43)

S/No.	Item Statements	SA	A	D	SD	Mean	Decision
1.	Enhances speed in the dissemination of information	15	20	3	5	3.05	Agreed
2.	Promotes accuracy in the dissemination of information	12	22	6	3	3.00	Agreed
3.	Facilitates convenience in the dissemination of information	15	10	11	7	2.76	Agreed
4.	Promotes dexterity and handiness in the dissemination of information	8	11	18	6	2.49	Disagreed
5.	Enhances effective management of information resources	13	18	10	2	2.98	Agreed
6.	Assists in the acquisition of information resources	15	19	7	2	3.09	Agreed
7.	Aids in overall decision making in academic libraries	11	23	4	5	2.93	Agreed
	Grand Mean					*2.90*	*Agreed*

Criterion Mean = 2.50.

Table 3 shows the benefits of strategic information access tools for dissemination of information in academic libraries in a digital era. The table reveals that except 1- promotes dexterity and handiness in the dissemination of information (2.49); the 7 item statements captured in the questionnaire were agreed upon by the respondents. Specifically, the results show that strategic information access tools are beneficial for dissemination of information in academic libraries in a digital era by: assisting in the acquisition of information resources (3.09), enhancing the speed of disseminating information (3.05), and promoting accuracy in the dissemination of information (3.00). Other benefits are: enhances effective management of information resources (2.98), aids in overall decision making in academic libraries (2.93), and facilitates convenience in the dissemination of information (2.76). This result is affirmed through a ***Grand Mean of 2.90***, which is higher than the ***criterion mean of 2.50,*** that is, ***2.90>2.50.*** However, the finding agrees with the studies carried out by Chimah and Nwokocha (2013); Dike and Edem (2015); Nwosu and Ottong (2014), which revealed that strategic information access tools enhance the ability of the academic libraries to manage and keep tracks of their holdings, as well as create the opportunity for planning the acquisition of information resources for future information needs. In this wise, this current study pinpoints the fact that strategic information access tools increases the speed, accuracy and convenience of disseminating information in a digital era for easy identification, access, retrieval and utilization of information by academic libraries' users.

Table 4: Mean Responses on the Problems militating against Strategic Information Access Tools for Dissemination of Information in Academic Libraries in a Digital Era (n = 43)

S/No.	Item Statements	SA	A	D	SD	Mean	Decision
1.	Inadequate trained staff to handle technical services	17	19	5	2	3.19	Agreed
2.	Inadequate processing tools	15	20	7	1	3.14	Agreed
3.	Lack of current digital information access tools such as: OPAC, MARC 21, Dublin Core, etc.	13	25	5	-	3.19	Agreed
4.	Poor Internet connectivity	11	23	3	6	2.91	Agreed
5.	High cost of Internet bandwidth	20	18	3	2	3.30	Agreed
6.	Poor ICT skills of staff to manage web-based access tools	10	17	13	3	2.79	Agreed
7.	Epileptic power supply	16	14	7	6	2.93	Agreed
8.	Technophobia for technical services	8	15	12	8	2.53	Agreed
9.	Poor knowledge of the workings of OPAC, MARC 21 and Dublin Core	18	13	9	3	3.07	Agreed
10.	Inadequate computers and related facilities	15	16	7	5	2.95	Agreed
11.	Inadequate funding	19	20	2	2	3.30	Agreed
12.	Poor working conditions	11	13	16	4	2.77	Agreed
	Grand Mean					***3.01***	***Agreed***

Criterion Mean = 2.50.

Table 4 presents the results of the challenges militating against strategic information access tools for dissemination of information in academic libraries in a digital era. The table reveals an overall agreement with the item statements of investigation. It equally shows a ***Grand Mean*** of ***3.01,*** as against the ***2.50 criterion mean***, indicating a very strong agreement with the variables of investigation. Specifically, the results reveal that inadequate funding (3.30), and high cost of internet bandwidth (3.30), top the list of the challenges confronting strategic information access tools for dissemination of information in academic libraries in a digital era. The finding also reveals other challenges to include: inadequate trained staff to handle technical services (3.19), lack of current digital information access tools such as: OPAC, MARC 21, Dublin Core, etc. (3.19), inadequate processing tools (3.14), and poor knowledge of the workings of OPAC, MARC 21 and Dublin Core (3.07). Other challenges are: inadequate computers and related facilities (2.95), epileptic power supply (2.93), poor Internet connectivity (2.91), poor ICT skills of staff to manage web-based access tools (2.79), poor working conditions (2.77), and technophobia for technical services (2.53). However, this finding agrees with the study undertaken by Ingutia-Oyieke and Dike (2010), which revealed that the major barriers to strategic information access tools for dissemination of information in a digital era include; inadequate information and communication technology (ICT) infrastructures and poor ICT skills of academic library staff to navigate, search, access, retrieve and use electronic resources like the Online Public Access Catalogue (OPAC), Internet search engines and other online databases in disseminating information. It also agrees with the studies of Abdulkadir and Mohammed (2015); Dike and Edem (2015), which identified poor training of academic library staff and poor funding of academic libraries as the problems confronting strategic information access tools for dissemination of information in academic libraries in a digital era.

Table 5: Mean Responses on the Measures to Overcome the Problems militating against Strategic Information Access Tools for Dissemination of Information in Academic Libraries in a Digital Era (n = 43)

S/No.	Item Statements	SA	A	D	SD	Mean	Decision
1.	Provision of adequate funding to academic libraries	20	17	4	2	3.28	Agreed
2.	Adequate training of staff on technical services	18	23	-	2	3.33	Agreed
3.	Provision of adequate and current processing tools	15	24	3	1	3.23	Agreed
4.	Provision of effective internet connectivity	16	20	6	1	3.19	Agreed
5.	Provision of constant power supply in academic libraries	17	18	5	3	3.14	Agreed
6.	Training of library staff on the handling of OPAC, MARC 21 and Dublin Core for dissemination of information	13	18	9	3	2.95	Agreed
7.	Provision of adequate functional computers and related facilities	20	15	7	1	3.26	Agreed
8.	Provision of ICT training for academic library staff to boost	14	22	5	2	3.12	Agreed

	their skills on web-based access tools						
9.	Provision of conducive working conditions in academic libraries	16	24	3	-	3.30	Agreed
10.	Encouragement of staff interests on ICT related tasks	10	19	10	4	2.81	Agreed
	Grand Mean					**3.16**	**Agreed**

Criterion Mean = 2.50.

Table 5 presents the result of the measures necessary to overcome the problems militating against strategic information access tools for dissemination of information in academic libraries in a digital era. The result reveals an overall affirmation with the variables under investigation, and shows a higher **Grand Mean** of **3.16,** against the **2.50 criterion mean**. The result specifically reveals the measures to include: adequate training of staff on technical services (3.33), provision of conducive working conditions in academic libraries (3.30), provision of adequate funding to academic libraries (3.28), provision of adequate functional computers and related facilities (3.26), and provision of adequate and current processing tools (3.23). Other measures are: provision of effective internet connectivity (3.19), provision of constant power supply in academic libraries (3.14), provision of ICT training for academic library staff to boost their skills on web-based access tools (3.12), training of library staff on the handling of OPAC, MARC 21 and Dublin Core for dissemination of information (2.95), and encouragement of staff interests on ICT related tasks (2.81). This finding, in some ways, agrees with the studies conducted by Abdulkadir and Mohammed (2015); Fordjour, Badu and Ajei, 2010; Nwosu and Ottong (2014), which revealed that provision of ICT related training to enhance staff ICT skills on how to install and operate OPAC, MARC 21, Dublin Core, provision of adequate processing tools, training of staff on technical services, improved power supply in academic libraries, etc., can ameliorate the problems confronting strategic information access tools for dissemination of information in academic libraries in a digital era. In this wise, this study is a quality addition to existing knowledge because key fundamental measures as presented and analysed above can go a long way to enhancing dissemination of information in our digitally transforming academic libraries.

5.0   Conclusion

Dissemination of information in any academic libraries is analogous to the key essence of the existence of the academic libraries. This is because without effective dissemination of information by the academic libraries, especially, as the system is steadily going digital, the objectives of the academic institutions such as teaching, learning, research/scholarship and community services, may not be accomplished. However, this study clearly shows that to achieve effective dissemination of information, some strategic information access tools are indispensable. In this study, the findings pointedly revealed that internet search engines, library catalogue, online databases/CD-ROMs, etc., are strategic information access tools. It also revealed the benefits of strategic information access tools to include; facilitation of speed, accuracy, and convenience of disseminating information as well as enhancing the management of information resources in the academic libraries. Meanwhile, the problems militating against the strategic information access tools in a digital era, include; poor funding of academic libraries, poor ICT skills of library staff, epileptic power supply, poor internet services, absence of current web-based information access tools, etc. Based on this, the paper concludes by stating that

academic libraries and librarians need to rise up to their responsibilities by ensuring that strategic information access tools are not only acquired but effectively put to use, through improved skills, in order to enhance timely dissemination of information to users.

6.0   Recommendations

Based on the findings of this study, the following recommendations become pertinent:-

- Academic libraries should intensify ICT training for their staff in order to boost their skills on web-based information access tools. This should include training on the handling of OPAC, MARC 21 and Dublin Core for dissemination of information. This training should also target effective delivery of technical services in the academic libraries.
- Management of academic institutions should endeavour to increase funding of academic libraries in order to enable the acquisition of current processing and information dissemination tools and equipment.
- Academic libraries should provide adequate functional computers and information and communication technology (ICT) facilities necessary for effective dissemination of information in a digital era.
- Government and management of academic institutions should step up their power generation capacity in order to support the dissemination of web-based information services to academic library users.
- Academic libraries should step up the capacity of their internet connectivity by acquiring a more stable bandwidth in order to support the speed and convenience of disseminating information.
- Academic library staff should show more interests in acquiring technical services skills cum ICT skills in order to enable them meet up the evolving demands which digital transformation has imposed on the academic libraries.

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