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Austin Jude Chikodi Mole MNLA

University of Ngeria, Nsukka, austin.mole@unn.edu.ng

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COMPETENCY REQUIREMENTS AND LEVELS OF LIPS FOR UPDATING INFORMATION SERVICES FOR AGRICULTURAL RESEARCH IN NIGERIAN UNIVERSITY LIBRARIES

ABSTRACT

The study examined the competency requirements and levels of library and information professionals (LIPs) for updating information services for agricultural research in Nigerian university libraries. Employing descriptive survey design, all the 89 library and information professionals (LIPs) in six federal university libraries (three conventional and three agricultural universities) selected based on purposive sampling method were used for the study. The research employed the use of structured questionnaire, code-named, 'UPINSEQ' and an observation checklist as instrument for collecting data. Data collected were analyzed using frequency counts, percentages, mean and standard deviation while the null hypotheses were tested at 0.05 level of significance using the t-test. Findings revealed that among the competencies required for updating information services for agricultural research include skills in ICT use in information services; skills in conventional library information services, wide knowledge of sources of agricultural information; wide general subject expertise in agricultural science, and communication skills. It is recommended that ICT facilities should be made readily available for training and for accessing information for agricultural research in the university libraries.

1. INTRODUCTION

Agriculture is a very important sector of the economies of the developing countries. It is the backbone of the economy of Africa with about 90% of her people depending on it for a living. It is also the main foreign exchange earner of the various countries that make up the continent (Mbwana, 2013). Ezeani (2005) has observed that very few countries have experienced rapid economic growth without a corresponding growth in agriculture. However, in Nigeria, the oil boom of the 1970s resulted in the neglect of agriculture as government shifted its attention and support from the agricultural to the oil sector. This had adverse effects on the development of agriculture in Nigeria. This neglect caused Fadiji to prophesy in 1996 that the much publicized aspiration of food for all by the year 2000 would be an unrealizable dream. Today, his prophesy has come to reality. Today, the current food supply is inadequate to meet the needs of the over 140 million people resulting in the continuous dependence on importation of even staple food products like rice and beans. Nigerian agriculture has been stagnant, or at best, in recession. There has been perennial low agricultural production (Aina, in Mabawonku, 2001), continuing poor food supply and food security, continuing poor agricultural development and poor economic and consequently, poor national development in Nigeria and other ever-present problems of the agricultural process. In view of this and considering the apparent volatility of the oil sector, there is urgent need to reexamine the strategies for solving agricultural problems and enhancing agricultural development in Nigeria.

One way of achieving this is through sound agricultural research. Agricultural research, according to Besemer and Veerman (2005) is simply a systematic inquiry into the application of scientific procedures to the study of agricultural problems. These problems require solutions based on convincing evidence. Such evidence is captured through well-planned and thoroughly executed agricultural research (FAO, 1993). The ultimate aim of agricultural research is to bring greater productivity and economic efficiency to the agricultural industry. However, agricultural research in Nigeria has been marred by lack of up - to - date information support to all the stakeholders in the sector. Researchers require adequate access to a wide array of information resources available in various formats and media in order to produce timely and appropriate research result that can be productively applied to emancipate Nigeria from her perennial low agricultural production, enhance food security, restore agriculture as the main foreign exchange earner, support the federal government's poverty alleviation programme, promote rapid economic growth, and enhance the overall national development of the nation.

Agricultural research is carried out and promoted in various specialized institutions. However, universities are prominent in agricultural research because of the preponderance of high level manpower engaged in the production and utilization of agricultural research results, the existence of a large population of student participants and users, and the existence of competitive research resulting in the need for both intensive and extensive research.

The university is the apex of the system of higher education. (Nigeria, 2014). The universities are mandated to promote manpower development, research and national development. This, as noted by Mezieobi (2007), was stipulated in the National Policy on Education. The universities promote research not only by providing relevant and needed information resources and services for researchers, but also by disseminating their research findings to both the government, industries and other researchers.

Central to this objective of promoting research and scholarship in the university is the university library. The main purpose of the university library is to support the objectives of the university which are to promote teaching, learning and research. No university can exist without a library since the university is meant to teach and carry out research (Ekere, 2006). Thus, university libraries, according to Hardesty (1996), are always struggling to acquire and organize printed and non- printed forms of recorded materials in order to maintain a research collection for the community they serve. Ekere (2006) asserted that the university library is supposed to provide information resources and services of sufficient quality and diversity. University libraries therefore, need to ensure that agricultural information resources generated locally and overseas are made available and accessible for research as adequately and currently as possible. For a university

library to achieve this, it must acquire and organize a vast array of information resources in many diverse forms and media, including those brought about by the electronic age.

Information resources, according to Satter and Lancaster (2004), are worthless if they are not adequately and currently accessed at the right time and properly utilized for research, scholarship and general development of the individual and society. Updating information services in this context involves the provision of up-to-date information from diverse formats and media to the patrons. But it goes beyond this. According to Shibanda (2000), it involves the provision of adequate and current information resources to satisfy researchers' information needs. Information services are packaged to meet particular information needs, at the right time, in the right quantity and quality and for the right patron. Aina in Mabawonku (2001) had observed that one of the reasons adduced for the perennial low agricultural production in Africa is the lack of up to date information support such as timely and appropriate research results, to all the stakeholders in the sector. To address this problem, Igbeka and Atinmo (2012) recommended among others that current information sources should be provided for agricultural research. This can be attained through the application and utilization of information and communication technology in addition to other conventional methods of providing current information to library users.

In Nigeria, the National Universities Commission (NUC) recently commended the Benson Idahosa University Library as the only university based library in Nigeria that provides up-to-date information services to patrons (Idiegbayan, Okosun, Eruanya and Ojo-Igbinoba, 2015). University libraries in Nigeria may be lagging behind in the provision of adequate and up-to-date information services for agricultural research.

Considering the critical role played by universities in organizing the national agricultural research system (FAO,1993) and in overall national development (World Bank,1997), university libraries are expected to ensure the availability of and access to adequate and up-to-date relevant information resources for researchers. In realization of this role and in support of agricultural production in Nigeria, the federal government allocates not less than three (3) percent of her annual budget for agricultural research (Federal Republic of Nigeria, 1990). In addition, it has established nineteen (19) agricultural and agro-allied national research institutes. There are over ninety-one federal, state and private universities with faculties of agriculture including three agricultural universities in Nigeria (NUC, 2008). Specifically, there are twenty five (25) federal universities (including universities of technology and agriculture) with faculties of agriculture (JAMB, 2014).

Much of Nigeria's scientific and technical manpower is actively engaged in agricultural research and by implication generates a great number of local agricultural literature. Moreover, the occasional meetings, seminars, conferences and workshop which serve as fora for the exchange of

current agricultural knowledge also result in the generation of numerous scientific papers (Omeje, 2008). It is apparently difficult for the Nigerian university libraries to track down the output of recorded knowledge (generated locally and outside Nigeria) in a science oriented discipline like agriculture (Popoola, 2012). The large volume of published items of information and data collected that required processing, storing and wide distribution to researchers constitute an enormous challenge that call for required competencies associated with utilization of ICTs for updating information services for researchers in agricultural science. The thrust of this study, therefore, is to determine competency requirements and levels of Library and Information Professionals (LIPs) for updating information services for agricultural research in Nigerian university libraries.

2. Statement of the Problem

Agriculture is a discipline whose research and development depends to a very large extent on timely and up - to - date information resources and services. Thus, French (1990) noted that agricultural researchers are dependent on tremendous amounts of information of very timely nature and need to track down the output of recorded knowledge (generated locally and outside Nigeria) in agriculture and related areas.

While university libraries in Europe and American have taken advantage of the opportunities provided by information and communication technology in the provision of information services to their patrons, their counterparts in the developing countries, of which Nigeria is one, are yet to take full advantage of this opportunity (Ikpaahindi,2005). It is of great concern, therefore, that agricultural researchers in developing countries such as Nigeria lack access to current literature in university libraries. Consequently, information services provided for agricultural research in Nigerian university libraries are not current enough to meet the needs and expectations of the patrons (Mole,2003; Idiegbayan, Okosun, Eruanya and Ojo. Igbinoba, 2005; Ikpaahindi,2005). Most often, locally generated literature on agriculture, such as research reports and conference papers, seem to be inaccessible or are not adequately and currently provided to a good number of university libraries in Nigeria. This, according to Aina, in Mabawonku (2001), has accounted partially for the perennial low agricultural production in Africa

If nothing is done to address this problem, agricultural researchers and other stakeholders in the agricultural sector such as agriculturists, governmental agricultural agencies and policy makers, and agriculture-based Non-Governmental Organizations (NGOs) would be denied access to up-to-date information on current innovations and practices in agriculture. This will result in research results which may be inappropriate and irrelevant to current agricultural needs of the country. This would result in continuing poor food supply and food security, continuing poor

agricultural development and thus poor economic and consequently, national development of Nigeria. The government's Poverty Alleviation Programme (PAP) will be derailed while the aspiration of food security as enshrined in the federal government's 7-point agenda and the elimination of extreme poverty and hunger in the Millennium Development Goals (MDGs) will become another unrealizable dream.

It is of great concern that despite the pertinent need for a study to determine competency requirements and levels of LIPs for updating information services for agricultural research in Nigerian university libraries, no study has been carried out. This justifies this study which is intended to determine what competencies are required and which of these competencies are currently possessed by LIPs for updating information services for agricultural research in the libraries.

3. Research Questions

The following research questions were formulated to guide the study

1. What are the competencies required by Library and Information Professionals (LIPs) for updating information services for agricultural research in Nigerian university libraries using ICTs?
2. What is the competency level of LIPs in the application of the Information and Communication Technology in updating information services for agricultural research in the university libraries?
3. What are the perceived problems associated with the competence of LIPs in the use of ICTs in updating information services for agricultural research in the libraries?
4. What are the strategies for enhancing the competence of LIPs in the application of ICT in updating information services for agricultural research in the libraries?

4. Hypotheses

Considering the accidental spread of the university libraries into two broad categories of conventional and agricultural university libraries, it was considered appropriate to formulate hypotheses to determine the differences in the mean responses of the LIPs in the two types of university libraries. Therefore, the following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance.

Ho 1: There is no significant difference in the mean responses of the LIPs in the agricultural and conventional university libraries with regards to the competencies required by the LIPs for updating information services for agricultural research in the libraries.

Ho 2: There is no significant difference in the responses of LIPs of the agricultural and

conventional university libraries with regards to the competency level of the LIPs in updating information services for agricultural research in the university libraries.

Ho 3: There is no significant difference in the mean responses of the LIPs in the agricultural and conventional university libraries with regards to the perceived problems militating against the use of ICTs in updating information services for agricultural research in the libraries.

Ho 4: There is no significant difference in the responses of the LIPs of the agricultural and conventional university libraries with regards to the strategies for enhancing the use of ICTs for updating information services for agricultural research in the university libraries.

5. LITERATURE REVIEW

Information services are offered to mediate between library users' information needs and the information resources of the library. The purpose of information services according to Okiy (2008) is to get the content of library collections to the clientele. It is intended to change libraries from a mere storehouse of information to a gateway to information. Similarly, Morgan (1999) noted that information services are aimed at enabling the users to make effective use of the resources of the library. For the purpose of this study, information services is the provision, through relevant methods, of required information or knowledge on an issue, event or person so as to satisfy the information needs of the recipient.

Updating information services implies the provision of up to date information and information resources to satisfy the information needs of users. However, Ranganathan, in Hahn (2007), viewed it as implying the right contact which is contact between the right reader and the right book, at the right time, in the right personal way. Supporting the need to update information services, Akintunde (2012) noted that the thrust of all library services is the provision of up-to-date and timely information to the clients. Similarly, Ayanyemi (2006) maintained that information is an essential resource for individual growth and for survival. Thus, there is often the need for individuals to obtain timely information. Provision of such timely information, according to Ranganathan, as cited by Hahn (2007) is the only available and effective method of discharging the functions of converting potential users to habitual users.

From a pragmatic point of view, Seiden (2000) posited that provision of the right information where it is needed and in the form in which it is required improves the ability of researchers to make informed decisions and to achieve particular goals. Specifically, Iloeje (2001) argued that our increased access to timely, accurate, relevant, reliable & current information has

been a highly significant percussor to our technological innovations Ready and timely access to information therefore complements up to date provision of information services.

For the purpose of this study, updating information services is the packaging and provision of the right information for the right need, at the right time, in the right quantity and quality and for the right agricultural researcher.

Commenting on the purpose and function of research, Anyanwu (2007) argued that research is the only source for generating and advancing the frontiers of knowledge, skills, training and expertise for man power, and therefore the most important factor which facilitates and accelerates economic development and improved standard of living in society. Additionally,

University libraries have a significant and indispensable role to play in updating information services for agricultural research. Thus, Lungu and Lawal, in Anyanwu (2007) stated that the mission of the university is to satisfy special or general needs of a nation through teaching, research and community services. The university library is central to the university in the provision of information for research and scholarship.

In providing up-to-date information services for research, university libraries must take cognizance of the various academic fields of study covered by the university. One of such fields is agricultural science. Agricultural research, according to Besemer and Veerman (1995) is simply a systematic inquiry into the application of scientific procedures to the study of agricultural problems. The objectives of agricultural research, in the words of Alawode (2009) are to confirm existing knowledge; to discover new facts and general principles for explaining, predicting and controlling events in agricultural situations. Agricultural research is justified on the basis of the ever present problems of the agricultural process. These problems require solution based on convincing evidence. Such evidence is captured through well planned and thoroughly executed agricultural research (FAO,1993). The role of university libraries in this direction is to provide up-to-date information services to support systematic inquiry and investigation in agriculture in universities, and in this case, Nigerian universities.

From the above conceptual framework, the researcher can deduce that updating information services for agricultural research in university libraries, simply put, implies packaging and providing very adequate and timely agricultural information in the university libraries to satisfy specific agricultural information needs and support agricultural research in Nigerian universities. The essence of this is to provide the right information for the right need, at the right time, in the right quantity and quality to support scientific investigations into agricultural processes. This is intended to provide background knowledge, better understanding or knowledge of contemporary development; confirm existing knowledge; discover new facts and general

principles for explaining; predicting and controlling events and serve as a guide or tool for decision making between two or more choices or alternatives in agricultural issues and practices in the universities.

6. RESEARCH METHOD

The design of this study is descriptive survey. The area of study is Nigeria. Nigeria is divided into six geo-political zones namely: North-West, North-East, North-Central, South-West, South-East and South-South. Nigeria is also made up of 36 states and the Federal Capital Territory, Abuja with each geo-political zone having six (6) states each except the North – West and South-East which have seven (7) and five (5) states.

The population of this study consists of Library and Information Professionals (LIPs) involved in providing information services for agricultural research in Nigerian federal university libraries. There are twenty-five (25) federal universities (including universities of technology and agriculture) with faculties of agriculture in Nigeria (JAMB, 2014).

Response to the instrument was restricted to the LIPs involved in information services. This includes the University librarians, the librarians-in-charge of reference and information services units, the reference librarians and the heads of computer systems units.

The sample for this study was drawn from university libraries of six (6) federal universities. The six (6) universities selected for this study include:

University of Agriculture, Abeokuta (UAA) (Ogun state)

University of Ibadan, Ibadan (UI) (Oyo state)

Obafemi Awolowo University, Ile Ife (OAU) (Oyo state)

University of Agriculture, Makurdi (UAM) (Benue state)

Michael Okpara University of Agriculture, Umudike (MOUAU) (Abia state)

Ahmadu Bello University, Zaria (ABU) (Kaduna state)

The universities were selected for this study based on purposive sampling method. The six federal universities met a number of criteria set as requirement for selection. All the agricultural universities met all the criteria. These and the three conventional universities were, therefore, purposively selected for this study.

All the Library and Information Professionals (LIPs) involved in providing information services for agricultural research in the selected university libraries (89) were used for this study. They include 6 university librarians, 6 librarians in-charge of reference and information services unit, 71 reference librarians and 6 heads of computer / Systems unit.

A questionnaire titled ‘Updating Information Services Questionnaire’ UPINSEQ was designed for collecting data for this study. The questionnaire is divided into five (5) sections labeled Sections A,B,C,D and E. The response indicators of sections B - E were keyed in a 4-point likert-type scale 4, 3, 2, 1, in descending order.

A 24 - item observation checklist was also used to collect data. It was designed to elicit information on the resources currently employed for updating information services for agricultural research in the university libraries.

7. RESULTS AND DISCUSSION

Research Question 1

What are the competencies required by library and information professionals for updating information services for agricultural research in the libraries using ICTs.

The result of the investigation on the competencies required for updating information services as summarized on table 1 shows that some of the highly required competencies for updating the information services include: skills in ICT use in information services, skills in conventional information services, wide knowledge of sources of agricultural information, communication skills, innovativeness in exploring new and changing information sources and needs and knowledge of own information resources and collections. The standard deviation scores also showed close range indicating agreement in the opinion of the respondents.

The message conveyed by the finding is that both the conventional and ICT based skills are mutually important for updating information services for agricultural research. The former are required as background knowledge and only on the strength of such knowledge can the later be properly applied. Skills in the traditional library services are, therefore, as important as those of the ICT based services. This finding also brings to light the fact that Nigerian university library scene is dominated by manual information services as asserted by Biddiscombe (2001) and Sharp (2002). The transition to ICT based information services is gradual (Ikpaahindi, 2005).

A critical look at the finding also reveals that the highly required skills cover both method-based and content-based skills which are the two broad categories of skills required for updating information services as asserted by Watts (2004). The method-based skills are skills in the **method and practice of information services**. These include: skills in **ICT use** in information services, **communications skills**, **innovativeness** in exploring new and changing information sources & needs, and **skills in merging the use of conventional and ICT based information services**. The

content-based skills cover **knowledge of the content of information sources and resources**. Such skills as revealed in this study include: **wide knowledge of sources of agricultural information, and knowledge of own information resources and collection**.

Hypothesis 1:

There is no significant difference in the mean responses of the LIPs in the agricultural and conventional university libraries with regards to the competencies required by the LIPs for updating information services for agricultural research in the libraries.

Table 2 contains the summary of the chi – square analysis of Ho 1. It can be observed from the table that the exact probability level, P is greater than the level of significance of 0.05 in 19 out of 20 items. This indicates that there is no significance difference in the mean responses of the LIPs of the agricultural and conventional university libraries with regards to the competencies required by LIPs for updating information services for agricultural research in the the majority of the items in the university libraries. The null hypothesis as stated above is therefore accepted. Only one item (skill in research methods and design) have exact probability level less than the level of significance of 0.05. This indicates that there is significant difference and implies that the null hypothesis is rejected with regards to the item.

Overall, the exact probability level, P (0.617) is greater than the level of significance (0.05). This implies that there is no significant difference. The null hypothesis as stated above is therefore accepted.

Research Question 2

What is the ICT competency level of LIPs in updating information services for agricultural research in Nigerian university libraries?

Result obtained on the competency level of the LIPs for updating information services for agricultural research in Nigerian university libraries as presented on table 3 shows that the competency level of LIPs in many of the items is little. However, the LIPs possess the following communication to a high level: Skills in conventional library information services, Skills in user relationship Wide knowledge of sources of agric.Infor, Versatility in providing for different and differing information needs, Skills in research methods and design, and Good knowledge of the nature and organization of information, These recorded mean weights of 3.19, 3.14, 3.14, 2.95, 2.92, 2.89, and 2.82 respectively.

Hypotheses 2:

There is no significant difference in the responses of LIPs of the agricultural and conventional university libraries with regards to the competency level of the LIPs in updating information services for agricultural research in the university libraries.

Table 4 above contains the summary of the chi – square analysis of Ho 2. It can be observed from the table that the exact probability level, P is greater than the level of significance of 0.05 in 19 out of 22 items. This indicates that there is no significance difference in the mean responses of the LIPs of the agricultural and conventional university libraries with regards to the competency level of the LIPs for updating information services for agricultural research in the the majority of the items in the university libraries. The null hypothesis as stated above is therefore accepted. Overral, the exact probability level, P (0.657) is greater than the level of significance (0.05). This implies that there is no significant difference. The null hypothesis as stated above is therefore accepted.

Research Question 3

What are the perceived problems militating against the updating of information services for agricultural research in the libraries?

The result as summarized on table 5 indicates that among the problems to the updating of information services for agricultural research in the libraries include: the capital intensive nature of updating information services, and inadequate subscription of books and journals online, poor funding, poor infrastructural provision, difficulty in using ICTs to access information, are some of the problems affecting the updating of information services.

A critical look at the finding reveals the preponderance of finance-related problems. That is not surprising considering the fact that finance has become one of the commonest problems affecting library services in Africa (Obasuyi, 2007). It had earlier in this work been stated that financial constraints could be one of the reasons for the inadequate utilization of newer ICTs for information services in Nigerian university libraries. Considering the importance of these ICTs as observed by Jagboro (2013) and Chisenga (2014) who considered them a vital element in the updating of information services, their inadequate provision and use, resulting partly from poor financial support, could be a major factor militating against updating of information services in the university libraries.

The finding is a reflection of the persistent neglet of information services in particular and general library services in general in Nigerian universities by the university administration and

government, especially in the area of provision of current information resources. The finding also reflects the views of Anyakoha (2005) who argued that updating information services especially through the application of ICT, is capital intensive. The last three items identified as major problems affecting updating of information services point to the issue of poor access to information resources. These problems, just like those of finance are peculiar to the developing countries of which Nigeria is one.

Hypotheses 3:

There is no significant difference in the mean responses of the LIPs in the agricultural and conventional university libraries with regards to the perceived problems militating against the use of ICTs in updating information services for agricultural research in the libraries.

Table 6 above contains the summary of the chi – square analysis of Ho 3. It can be observed from the table that the exact probability level, P is greater than the level of significance of 0.05 in 16 out of 20 items. This indicates that there is no significance difference in the mean responses of the LIPs of the agricultural and conventional university libraries with regards to the perceived problems militating against the use of ICTs in updating information services for agricultural research in the libraries. The null hypothesis as stated above is therefore accepted..

Overall, the exact probability level, P (0.378) is greater than the level of significance (0.05). This implies that there is no significant difference. The null hypothesis as stated above is therefore accepted.

Research Question 4

What strategies can be applied in enhancing the updating of information services for agricultural research in Nigerian university libraries?

Table 7 showing findings of this study resulting from research question four and which focused on strategies for enhancing the use of ICTs in updating information services for agricultural research, reveals that the most appropriate strategy is **adequate funding to support staff training in on information services/resources provision. Other major strategies include: well planned and suitable collection development policy; adequate CAS on new library information resources, making adequate personnel commitment to provide users with required information, resources and services, provision of current information resources; and making ICT facilities readily available for training and accessing information for agricultural research in the libraries.**

The above findings on the research question brings to light the centrality of funding in any activity concerned with updating information services for agricultural research. This has become even very important because of the capital-intensive nature of the activity as found out on research

question 6 above. Thus, both Chisenga (2014) and Eze (2009) stressed the need for proper funding of information services in university libraries. However, Eze advocated fee-based information services as a way out of the problem of inadequate funding of the services.

Hypotheses 4:

There is no significant difference in the responses of the LIPs of the agricultural and conventional university libraries with regards to the strategies for enhancing the use of ICTs for updating information services for agricultural research in the university libraries.

Table 8 contains the summary of the chi – square analysis of Ho 4. It can be observed from the table that the exact probability level, P is greater than the level of significance of 0.05 in 15 out of 16 items. This indicates that there is no significance difference in the mean responses of the LIPs of the agricultural and conventional university libraries with regards to the appropriateness of the ICTs for updating information services for agricultural research in the majority of the items in the university libraries. The null hypothesis as stated above is therefore accepted. Only one item (Inter-library loan service to obtain materials not available in the library) has exact probability level less than the level of significance of 0.05.

Overall, the exact probability level, P (0.396) is greater than the level of significance (0.05). This implies that there is no significant difference. The null hypothesis as stated above is therefore accepted.

8. Recommendations

The following recommendations are made based on the findings of the study:

- 1 The libraries should develop and be guided by well planned collection development policy that promote training of staff in the use of ICTs for updating information services for agricultural research. Such policy should cover both conventional and electronic collections.
- 2 The libraries should consider the development and use of online catalogue for accessing holdings of other libraries around the world a priority. This would no doubt enable the libraries to have wider access to more and current information resources without the restriction of space and time.
- 3 Improved funding is needed for training of staff in the area of updating information services for agricultural research in university libraries. University budgetary allocation to the libraries should be improved.
4. The libraries should also make ICT facilities readily available and accessible for hands –n

practical exposure on accessing information for agricultural research.

9. Resource sharing and cooperative information services should also be supported. The libraries should develop and use online catalogues for accessing holdings of other libraries.
11. The libraries should employ the services of competent library and information professionals (LIPs) who are competent in the application of ICTs in information services.

9. Conclusion

Agricultural development is highly dependent on research which also depends to a very large extent on timely and up-to-date information resources and services. Despite this fact, agricultural researchers in Nigeria lack access to current literature in university libraries. If nothing is done to address this problem, agricultural researchers and other stakeholders in the agricultural sector would be denied access to up-to-date information on current innovations and practices in agriculture resulting in research results which may be inappropriate and irrelevant to current agricultural needs of the country. This necessitated the need to determine competency requirements and levels of LIPs for updating information services for agricultural research in Nigerian university libraries. Eight research questions and seven hypotheses guided the study.

Findings of the study indicates that acquisition of required competency for updating information services for agricultural research in Nigerian university libraries is still being constrained by many factors most of which are hinged on inadequate finance and poor access.

To enhance the the competency level, the study recommends acquisition of required competencies for updating information services for agricultural research, the university libraries, according to the findings of this study, should ensure improved funding to support training; development and use of well planned collection development policy that promotes the acquisition of competencies for updating information services for agricultural research, and making ICT facilities readily available for training and accessing of information for agricultural research.

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References

- Adeyemi, N. .M. (2005). Issues in the application and utilization of ICT To reference services in libraries and information centres: key – note paper. *A compendium of papers presented at the 2005 National interactive seminar on application and utilization of ICT for reference services in libraries and information centres*, at the National library of Nigeria, Plateau state branch, Bukuru Road, Jos, 26-28th April, 2005
- Akintunde, S. A. (2012). Say it again: we just took off. *Nigerian Libraries*, 46(2), 1-14.
- Alawode, O. A. (2009). Internet and agricultural development in Nigeria. In M.C. Igboke and others (Eds.) *Sustainable agricultural development in a changing world: Proceeding of the 32nd to annual Conference of the ASN*, 1998. pp. 134-138.
- Anyakoha, M. W. (2015). Information and communication technology in library and information services. *Coal City Libraries*, 2 (1&2), 2-12.
- Anyanwu, A. I. (2007). Academic libraries and research: coping with the demands of research and publication in Nigerian university libraries Unpublished Masters project, University of Nigeria, Nsukka.
- Augustine, S. & Green, C. (2001). Discovering how students search a library web site : a usability case study. *College and Research Libraries*, 63(4), 354 -365.
- Ayanyemi, O. O. (2006). The role of information in enhancing the status of women in Developing countries. *Nigerbiblios*, 17(1&2), 150-161.
- Besemer, H. & Veerman, I. (2005). Agricultural information on the internet: what is out there and how to find it. *IAALD Quarterly Bulletin* 40(2/3), 61-67
- Biddiscombe, R (2001). The, development of information professional's needs for internet and IT skills: experiences at the university of Birmingham. *Program*. 35 (2): 57-166
- Chisenga, J. (2014). ICT in libraries: an overview and general introduction to ICT in libraries in Africa. INASP ICT workshop, Johannesburg, 21st -23rd July.
- Chowdhury, G. (2005). Digital divide: how can digital libraries bridge the gap?
Retrieved Nov.10 2006 from
<http://www.cis.strath.ac.uk/research/publications/papers/strath.cis.publication334.pdf>
- Ekere, F. C. (2006). Administration of academic libraries: A book of readings. Nsukka: UCO- Academic publishers, xi-xii
- Eze, S. (1999). Information and education in democracy: information for sustenance of

- a democratic culture. *A compendium of papers presented at the 1999 NLA Annual National Conference and AGM*, at the Hotel presidential Portharcourt, May 8-14. pp 2-6
- Ezeani, C. (2005). Re-engineering reference services to meet twenty-first century demands: the case of Nnamdi Azikiwe library, UNN. *Coal City Libraries*, 2 (1&2), 100-112.
- Food and Agriculture Organization of the United Nations (1993). The role of university in national agricultural research systems. Reports of the FAO expert consultation on the role of universities in national agricultural research systems, Rome, March 10-22. Rome ; FAO
- French, B. A. (1990). User needs and agricultural services in agricultural sciences. *Library Trends*, 38 (3), 14.
- Hahn, K. C. (2007). An investigation of an e-mail based help service. College of library and information services, University of Maryland CLIS technical report, no.97-03. Retrieved April 26, 2007, from www.clis.umd.edu/research/reports/tr.97/03/9703.html
- Idiegbayan- Ose, J., Okosun, H.E. Eruanya, C. & Ojo- Igbino, M. E. (2015). Benson Idahosa University Virtual Library : A case study. In *challenges in libraries and information services in an environment of change and reforms : A compendium of papers presented at the 43rd national annual conference and AGM of the Nigerian library Association* ,(pp.51-60) Abeokuta, Ogun state, July 9-15
- Igbeka, J. U. & Atinmo, M. I. (2012). Information seeking behavior and information utilization of agricultural engineers in Nigeria based on their different placed of work. *Nigerian libraries*, 46 (1), 9.
- Ikpaahindi, L. N. (2005), Welcome address at the opening ceremony of the 2005 national interactive library seminar on reference services organized by the National Library of Nigeria. In *A compendium of papers presented at the 2005 national interactive seminar on the application and utilization of ICT for reference services in libraries and information centres*, organized by the National library of Nigeria. (pp.1-3) Jos, plateau state, April 26-28
- Iloeje, M. U. (2001). Libraries and Librarians: Making a difference in the knowledge Age: Imperatives for delivering lifelong learning across space & time in the E-Age. In *Libraries & librarians: making a difference in the knowledge Age; a compendium of papers presented of the 39th National conference & AGM of NLA*, held in Owerri, mo state, 17 – 22 June, P. 22.
- Jagboro, K. O. (2013). A study of internet usage in Nigerian universities. A study of Obafemi Awolowo University, Ile Ife, Nigeria. *First Monday*, 8, 2.
- Joint Admissions and Matriculation Board/JAMB (2014) Guidelines for admission into first Degree courses in Nigerian universities and other degree awarding institutions, 2008/2009 academic session. Abuja: JAMB.
- Jones, S. (2002). The internet goes to college: How students are living in the future with

- today's technology. *Pew internet and American life project* retrieved September 15, 2005 from [http:// www.pew internet.org/reports/toc.asp](http://www.pewinternet.org/reports/toc.asp)
- Mabawonku, Iyabo (2001). Potentials of internet use in information provision to policy makers in Nigeria. *Nigerian Libraries*, 35 (2), 51-62.
- Mbwana, S. S. (2013). Meeting information needs of agricultural scientist in Tanzania. *Nigerian Libraries*, 46 (1), 82-88.
- Mezieobi, D. I. (2007). Preparing the Nigerian university social studies education lecturer for the challenges of the 21st century. In. B.G. Nworgu (Ed.) *Optimization of service delivery in the education sector: issues and strategies* (p.132.) Nsukka : UTP
- Mole, A. J. C. (2002). *Factors affecting the use of reference materials by postgraduate students in academic libraries : a comparative study of Nnamdi Azikwe Library, UNN and ESUT library, Enugu*. Unpublished masters thesis, University of Nigeria, Nsukka.
- Morgan, E. L. (1999) See you, *See a librarian: Final report*. Retrieved May 27, 2005 from [http://sunsite.berkeley.edu/-emorgan/ see-a-librarian](http://sunsite.berkeley.edu/-emorgan/see-a-librarian)
- National Universities Commission (2008). *Assessment of Nigerian federal universities, 2001*. Abuja : NUC. Pp. 15-17.
- Nigeria, Federal Republic of, (2010) *Agricultural policy of Nigeria*. Abuja: Directorate for Social Mobilization (DSM)
- Nigeria, Federal Republic of, (2014). *National Policy on Education*. Lagos: NERDC press.
- Obasuyi, L. (2007). *The application of micro computers in agricultural research libraries: a case study of NIFOR library*. Unpublished Bachelor's project, Delta State University, Abraka
- Okiy, R. B. (2008). Nigerian university libraries and the challenges of information provision in the 21st century. *Library Bulletin: Nigerian University Library System* 3 (172), 17-27.
- Omeje, E. O. (2008). *The availability and management of grey literature for agricultural research in Nigerian university libraries*. Unpublished master's thesis, University of Nigeria, Nsukka
- Satter, A. & Lancaster, F. W. (2004). *The role of the information specialist in the dissemination of agricultural information*. Urbana- champaign, Illinois: Illinois University press
- Seiden, P. A. (2000). Where have all the patrons gone? *Reference and User Services Quarterly*, 39 (3), 221.
- Sharp, Kate (2002) Internet librarianship: traditional roles in a new environment. In *Proceedings of the 66th IFLA council and general Conference*, Jerusalem, Israel, August 13-18.

Shibanda, G. G. (2000). Managing and Strategizing Africa's Information in Global Computerization. *African Journal of Library Archives and Information Science*, 10(1), 35 - 41.

Silverstein, J. (2003). Digital reference: Overview. Retrieved June 26, 2006 from <http://www.dlib.Org/.dlib>

Watts, C. (2004). ICT skills for information professionals in developing countries: perspectives from a study of the electronic information environment in Nigeria. Paper presented at the world library and information congress: 70th IFLA general conference and council, Buenos Aires, Argentina, August 22-27.

The World Bank (1997). *Revitalizing universities in Africa: strategies and guidelines*. Washington, D.C : The world Bank.