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# Information services provision and user satisfaction in agricultural research libraries in Nigeria

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The study examined the extent to which users are satisfied with reference and circulation services provision by agricultural research libraries in Nigeria. Descriptive survey method was used for the study. Through purposive sampling six agricultural research libraries: (three university of agricultural libraries and three agricultural research institute libraries) were selected from three out of six agricultural zones of Nigeria. A total of 701 respondent's, 241 from agricultural research institute libraries and four hundred and sixty (460) users from university of agricultural libraries were obtained in this study. The study finds out that reference and circulation services were highly provided by the agricultural research libraries in Nigeria. Majority of the users were satisfied with both the reference and circulation services provision by the agricultural research libraries. However, referral service and shelf management of books were rated dissatisfied. Irregular internet services, expensive, internet services, outdated material and staff unresponsiveness were some of the constraints to user satisfaction. The study recommended that there is need for librarian to design system that can facilitate and enhance referral services between the library and users. Adequate shelf management system that would allow proper shelf arrangement of books should also be put in place.

Key words: Africa, agricultural research, libraries, shelf management, books.

## INTRODUCTION

Research in agriculture is widely recognized as one of the most significant tools for sustainability of agricultural productivity and economic development in the developing countries, including Nigeria. This is because research in agriculture is required to meet the food and economic needs of the nation, provide employment for the populace, as well as preserve the natural resources (Islam, 2007). The policy makers, researchers and stakeholders in agriculture are also of the opinion that information services provision and utilization are key components of research and development efforts in agriculture, thus the need for effective library and information service provision (Osigwe, 1993). Modern agricultural research and development efforts have also been partly attributed to the spread of information and the ability of researchers to access and utilize research results. The key tenet of this information service provision

view point is that researchers need to access and utilize information in order to optimally enhance their researchand productivity outputs in agriculture (Griffith, 2006).

From a food policy perspective, International Food Policy Research Institute (IFPRI) (2007) maintains that sustainable strategies aimed at reducing poverty and hunger and improving nutrition in Africa requires access to high quality information resources that enable decision makers to articulate and plan for the long term, as well as to enable researchers to enhance their research activities. Thus high quality information services provision is fundamental to research in agriculture, and the necessity to provide the information services rest squarely on agricultural research libraries in Nigeria. Osigwe (2004) states that one major factor that makes agricultural research libraries different from other information gateways is their ability to provide information resources and services unique to the institutions they serve. He concludes that other information gateways such as Google scholars, internet etc, do not possess

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this unique quality. Thus, agricultural research libraries are expected to acquire, organize, preserve, and disseminate information, as well to improve, stimulateand guide research in agriculture by coordinating the efforts of research findings in agriculture, setting in motion interaction and better working relation between producers and consumers of agriculture research.

Halis (1995) refers to agricultural research libraries as all library / information centres established under the auspices of Agricultural Research Institutes including University of Agriculture set aside for the use of students, lecturers, researcher and practitioners in agriculture and related areas. The emphasis for the agricultural research libraries is the dissemination of specialized information primarily devoted to specialized information primarily devoted to a special discipline, offering specialized services to specialized clientele. Udekwe (2007) maintained that agricultural libraries in Nigeria provide reference, circulation, etc services to enable users to have access to desired information resources.

Nigeria has 18 National Agricultural Research Institutes (NARI) Libaries, in addition with three specialized Universities of agriculture libraries in Abeokuta, Ogun State, Makurdi in Benue State and Umudike in Abia State. These libraries are mandated to provide library and information services for study and research activities that will enhance the provision of prompt solution to farmers practical problem and raise farmers output and income and accelerate the drive towards national food self sufficiency (Ozowa, 1999).

Essentially, library and information services are library processes and activities with the aim of disseminating desirable information to library and information users. Library and information professionals have provided a range of services including reference, circulating etc. These services facilitate the inter – change of library data, promote the inter – operability of library system and support national and international networking of libraries. These services play important role in improving user's accessibility and utilization of library resources, which are held in the library collection, collection of other libraries or which are accessible in the world wide web (www) (Osigwe, 2004). Reference service provides the user of library and information service an interface with the large body of knowledge to satisfy his information needs. Depending on the type of library or information centre, reference service may range from the provision of desired information to the training and educating the user to identify and locate what he needs (Fisher and Kinch, 2000). The term circulation service applies to the process of lending books and other library information resources to users and then accurately reshelving them after they have been returned to the library so that they could be retrieved by the next users. Bataite (2001) maintains that this process involves a cycle where an item moves from shelf to user and back to shelf, in addition to the adjunct recording keeping. The entire process is based our

policies that the libraries have adopted concerning who may borrow what, for how long what happens if the item is not returned.

Although there has been a steady growth in agricultural information services provision in Nigeria, the persistent puzzle is: why is the growth in agricultural sector not impressive? The people of this country questioned the relevant and appropriateness of the services provision inspite of all the efforts and funds expanded on it. The extents to which information services actually satisfy users and contribute to agricultural development are subject of controversy and debate (Ozowa, 1999). Logic dictates that library and information services provision is essential for meaningful agricultural research and development in Nigeria, but how can this be demonstrated? How, tangible is the linkage between information service provision and the satisfaction and empowerment of library users for high research and productivity output? The limited status accorded to library and information service provision in Nigeria suggests that its potential value is not self – evident. Evidence from research also indicate users frustration, low patronage of library services / products, dearth of trained librarian, lack of modern tools for service delivery etc. as some of the factors affecting information service delivery in Nigeria and as a consequent users satisfaction (Osigwe, 1993, 2004; Phiri, 1996; Ogunleye, 1997).

User satisfaction has been defined by Ives (1983), as the extent to which users believe the library and information services available to them meet their information needs. The concept "User Satisfaction" is based on Cyart and March's suggestion cited in James et al. (1996) that if a library and information services meets user's information requirements, the user's satisfaction with the services will be increased, as a consequence enhanced users' research and productivity output. Conversely, if the services do not provide the needed information, the users will be dissatisfied, thereby diminishes their research and productivity output.

Increasingly, users' satisfaction with information services provision is being recognized as an important factor affecting researchers' productivity for sustainable agricultural development (Ankpa, 2000). Yet most studies in the literature focused on information needs of users and not how satisfied users are with services provided despite its management importance. It is against this background that this study sought to find out the extent of users satisfaction with reference and circulation services provision by agricultural research libraries in Nigeria.

## Purpose of the study

The purpose of the study is to determine the extent of user's satisfaction with library and information services provision by agricultural research libraries in Nigeria. Specifically, the study sought to:

**Table 1.** Mean standard deviation on the extent of references and circulation service provision availability.

| N = 6 | | | | |
|---|---|---|---|---|
| **Item No** | **Item** | **M ($\overline{X}$)** | **SD** | **Research question - decision** |
| 1 | Reference services | 3.8 | 0.447 | Highly provided |
| 2 | Circulation services | 4.0 | 0.000 | Highly provided |

1) Determine the extent to which reference and circulation services are provided by agricultural research libraries in Nigeria.
2. Determine the extent to which users are satisfied within circulation services.
3. Determine the extent to which users are satisfied with reference services provision.
4. Determine the constraints of users satisfaction with circulation and referral services provision.

## Research questions

The following research questions guided the study.
1. To what extent are reference and circulation services provided by agricultural research libraries in Nigeria?
2. To what extent are users' satisfied with circulation services provision?
3. To what extent are users' satisfied with reference services provision?
4. What are the contents of users' satisfaction with information services provision?

## Hypothesis

The following null hypothesis guided the study

1. There is no significant difference between the mean rating extension of users satisfaction with reference service provision in university of agriculture libraries and agricultural research institute libraries.
2. There is no significant difference between the mean rating of extent of users satisfaction with circulation service provision in university of agriculture libraries and agricultural research institute libraries.

### METHODOLOGY

The study was carried out in six purposively selected agricultural research libraries in Nigeria: namely: the library of National Root Crop Research Institute (NRCRI) of Nigeria. Umoudike, the library of Veterinary Research Institute (VRI) of Nigeria, VOM, the Library of Cocoa Research Institute (CRI) of Nigeria, Ibadan, the library of University of Agriculture Makurdi (UAM), the library of University of Agriculture Abeokuta (UAA) and the University of Agriculture Umudike (UAU). To select the sample for this study, registered list of all the library users in all participating libraries was obtained from the libraries. Using the list, systematic random sample techniques

was conducted by picking every second mane on the list. In this way 701 respondents were selected. A descriptive survey research method was adopted and questionnaire was used as instrument for data collection. The population constituted of 701 (460 and 241) from users of University libraries agriculture and Agricultural Research Institute and 6 readers services librarians. Methods of data analysis include Mean and standard deviation; while t-test was used to test the two hypotheses. Any mean above 2.50 is considered satisfactory(S) while any mean score below 2.50 is considered dissatisfactory (D).

## RESULTS

### Research questions one and two

To what extent are reference and circulation services provided by agricultural research libraries in Nigeria?

This question sought to determine the extent to which reference and circulation services are provided by agricultural research libraries in Nigeria. Data were analyzed and presented in Table 1.

Table 1 shows the mean and standard deviation of reader's services librarians' responses on the availability of information services provision in agricultural research libraries in Nigeria. The result shows that items 1 and 2 have mean scores of 3.8 and 4.0 with SD of 0.447 and 0.000 respectively indicating that they were highly provided.

### Research question two

To what extent are the users satisfied with the reference services provision in agriculture research institute and university of agriculture libraries?

### Hypothesis one

There is no significant difference between the mean ratings of agriculture research institute library users and University of agriculture on satisfaction with reference service provision.

Table 2 shows the mean, standard deviation and t - value of responses on user's satisfaction with reference service provision. The result shows that items 3 and 5 had a total mean score of 2.55 with SD of 0.67 and 2.92 with SD of 0.59 indicating satisfaction. Items 6 and 7 had

**Table 2.** Mean, standard deviation and t – value on Agriculture Research Institutes and University Of Agricultural Library, user's satisfaction with reference services provision.

| Item No. | Item | Agric res. N = 241 | | Uni. Agric N. 460 | | Total | | Res Q | Df | t | Sig. | H.D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | Mean | SD | Decision | | | | |
| 3 | Adequacy of ref. collection | 2.59 | 0.67 | 2.54 | 0.67 | 2.55 | 0.67 | S | 662 | 511 | 0.607 | NS |
| 4 | Referral service provision | 2.35 | 0.62 | 2.44 | 0.70 | 2.43 | 0.69 | D | 662 | -1.10 | 0.374 | NS |
| 5 | Asst. of Ref. Librarian | 2.96 | 0.62 | 2.92 | 0.59 | 2.92 | 0.59 | S | 662 | 0.635 | 0.526 | NS |
| 6 | Timeliness of ref. services | 3.11 | 0.60 | 3.03 | 0.60 | 3.03 | 0.60 | HS | 662 | 1.191 | 0.234 | NS |
| 7 | Personal contact provision | 3.13 | 0.62 | 3.00 | 0.64 | 3.00 | 0.64 | HS | 662 | 1.999 | 0.046 | S |
| | Overall | 2.83 | 0.41 | 2.78 | 0.36 | 2.79 | 0.37 | S | 662 | 1.053 | 0.293 | NS |

Key: H.D = Hypothesis decision; N.S = Not significant; S. = Significant.

the total mean scores of 3.03 with SD of 0.60 and 3.00 with SD of 0.64 indicating highly satisfied. Furthermore, Table 3 shows that items 4 had a total mean score of 2.43 with SD of 0.69 indicating dissatisfaction.

To investigate further whether there is significant difference in user's satisfaction between agriculture research library and that of agriculture university libraries, hypothesis one above is tested.

To test for Hypothesis one, t – test was used at 0.05 level of significance as shown in Table 2. From the Table 2, the t-cal is 1.053 with 662 df significant at probability value of 0.293, then t-cal is not significant at 0.05, this is because 0.05 is less than 0.293; therefore, the null hypothesis is accepted. This implies that there is no significant difference in users' satisfaction with reference services provision in the two institutions.

**Research question three**

To what extent are users satisfied with the circulation services provision in agriculture research institute and university of agriculture libraries?

**Hypothesis two**

There is no significant difference between the mean rating of agriculture research institute library users and university of agriculture on satisfaction with circulation services provision.

Table 3 shows the mean, standard deviation and t-value of responses on users' satisfaction with circulation services provisions. The result shows that items 8, 9, 10, 12 and 13 had the total mean score of 2.50 and above indicating satisfaction, while items 11 had a total mean score of 2.40 with SD of 0.73 indicating users' dissatisfaction.

However, to investigate whether or not there is significant difference in mean rating of library users satisfaction between agriculture research institute and university of agriculture the hypothesis two above is tested.

To test for hypothesis two, t- test analysis was performed at 0.05 level of significance as shown in Table 3. From Table 3, the t-cal is 0.247 with 662 df significant at probability value of .836, this implies that t-cal is not significant at 0.05. This is because 0.05 is less than 0.836. So the null hypothesis is accepted. This implies that there is no significant difference in users' satisfaction with circulation services provision in the institutions.

**Research question four**

What are the constraints of user satisfaction with circulation and reference service provider?

Table 4 presents the results of the constraints to users' satisfaction with information services provision by the agriculture research libraries. It was revealed that item 19(89%) ranked first among the problems facing users' satisfaction with information service provision, followed by item 20(75%), item 15(66%), item 14(62%), item 21(61%) and others.

**DISCUSSION AND CONCLUSION**

The findings from the study showed that agricultural

**Table 3.** Mean, standard deviation and T – Value of the responses of agriculture research institute and university of agriculture user's satisfaction with circulation services.

| Item No. | Item | Agric res. N = 241 | | Uni. Agric N. 460 | | Total | | Res Q | Df | T | Sig. | H.D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | Mean | SD | Decision | | | | |
| 8 | The number of items loanable at a time | 2.5 | 7.1 | 2.5 | 0.6 | 2.5 | 7.6 | S | 662 | 4.74 | 623 | NS |
| 9 | The opening period of the library | 2.6 | 7.2 | 2.6 | 6.7 | 2.7 | 6.7 | S | 662 | 1.86 | 0.63 | NS |
| 10 | The loan period granted the users | 2.7 | 7.4 | 2.7 | 6.7 | 2.7 | 6.7 | S | 662 | 1.13 | 0.258 | NS |
| 11 | The shelf arrangement of book | 2.4 | 7.2 | 2.4 | 7.4 | 2.4 | 7.3 | D | 662 | 263 | 0.792 | NS |
| 12 | The lending process | 2.6 | 7.0 | 2.5 | 7.0 | 2.5 | 7.0 | S | 662 | 855 | 0.377* | NS |
| 13 | Overdue recall | 2.7 | 6.9 | 2.7 | 7.3 | 2.7 | 7.2 | S | 662 | 207 | 0.836 | NS |
| | Overall | 2.6 | 3.5 | 2.6 | 3.7 | 2.6 | 3.7 | S | 666 | 247 | 0.805 | NS |

**Table 4.** Constraints to user satisfaction with circulation and reference services provided by agricultural research libraries in Nigeria.

| Item No. | Problem | Frequency | Percentage | Rank |
|---|---|---|---|---|
| 14 | Staff unresponsiveness | 430 | 62 | 4th |
| 15 | Outdated materials | 463 | 66 | 3rd |
| 16 | Lack of communication facilities | 282 | 40 | 8th |
| 17 | Inadequate photocopying machine | 324 | 46 | 7th |
| 18 | Inadequate opening period | 107 | 26 | 9th |
| 19 | Irregular Internet Service | 627 | 89 | 1st |
| 20 | Expensive Internet service | 527 | 75 | 2nd |
| 21 | Slow processing of data | 430 | 61 | 5th |
| 22 | Inadequate user education | 341 | 49 | 6th |

research libraries in Nigeria showed more commitment in the provision of information services. For instance, the two information services, investigated reference and circulation were highly provided. This finding agreed with previous study by Umar (2009) who reported that transactional services such as circulation, reference and photocopying are in most cases provided on a regular basis by agricultural research libraries in Nigeria.

However the findings concerning reference service showed that respondents were dissatisfied with the extent of referral service encountered in Agricultural research libraries. To reach widely spread clientele with information, libraries and information centres rely on reference services to link a complex web of intermediaries who are specialist in different fields and located in different places. This service was not no

satisfactory provided. These findings compare favorably with the study of Idachaba (2005) who reported that, more than 60% of respondents rated service as unsatisfactory. The implication is that users were not provided with first hand information which is only facilitated through linking users subject specialist and information gatekeepers whose expertise may be useful and valuable for users. Study and quality research output.

The result of this study also indicated that users satisfaction ratings with shelf arrangement of books were negative indications shelf failure. This result is supported by the findings obtained by Nwokedi (2007) in his study of doctors satisfaction with the services at the University of Jos Medical Library where he reported that 74% of the respondent rated shelf arrangement of books as poor.

Lack of proper shelf management may lead to users time and energy wastage in an effort to locate and retrieve materials from the shelf. The implication of this situation is users frustration which is believed that, there is a lower bound below which users will discontinue use of the library.

Finally, the result of the study revealed that the major constraints militating against user satisfaction with reference and circulation services in agricultural research libraries in Nigeria are outdated library materials, irregular internet services and staff irresponsiveness to users information needs. This finding ahs implication for effective information service provision and delivery programme of the agricultural research libraries in Nigeria. The libraries will find themselves in a position where they will be unable to offer current and quality information resources either through print or electronic formats. This apart, users will be confronted with staff who are not knowledgeable, unfriendly, and not ready to assist users stated differently, users would find it difficult to locate current and relevant information either through print or electronic format to carry out their study and research work, and staff who are not ready and willing to assist users in times of difficulties. It is interesting however to note that there is no significant difference in the mean satisfaction ratings of users in the two groups of institutions studied. This could suggest that the two institutions adopted similar approaches in information service provision and delivery strategies. This is a very weak discussion. This section is where the researcher demonstrate their scholastic ability in terms of confirming and refuting their findings vis-à-vis the report of the previous related studies. The section needs to be more elaborate than it is.

The results obtained from this study showed clearly that agricultural research libraries in Nigeria from the most part showed commitment in the provision of reference and circulation services. There is also a strong indication from the study that users were satisfied with basic information services provision such as referral, assistance from reference librarians and adequacy of reference collection.

However referral service, timeliness of reference services datedness of resources and shelf arrangement of books were poorly provided. It is therefore recommended that because of the centrality of referral service in reference service provision and delivery, an important role of the librarian is to design systems and services that can facilitate and enhance the relationships

of users with each other. This could be done through listing telephone numbers of learned scientists in agriculture, organization in agricultural and other stakeholders in agriculture. There is also need for adequate shelf management strategies that would allow proper shelf arrangement of books.

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