

INFORMATION SEEKING HABITS AND NEEDS OF AGRICULTURAL RESEARCH SCIENTISTS IN IBADAN METROPOLIS, NIGERIA

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ABSTRACT

The study examined the information seeking behaviour and needs of agricultural research scientists within the Ibadan metropolis with a view to assisting information professionals to provide for these needs more efficiently than hitherto. Data were drawn from five agricultural research institutes in Ibadan. The results of the study revealed that agricultural research scientists relied mostly on agricultural libraries and correspondence with colleagues for information. Information is sought primarily for research and for matters relating to self-improvement. Journals were the most consulted of the various information sources.

INTRODUCTION

During the pre-oil boom era in Nigeria, agriculture was the mainstay of the economy. In these days when the economy is largely dependent on revenue accruing from crude oil exports, agriculture is still identified as one of the most viable options for a buoyant economy. Therefore, any factor that will improve agricultural production should occupy a prominent position in the hierarchy of priorities of Nigeria. A great deal of research and development is needed to make agriculture achieve its potential productivity in Nigeria and ensure its sustainability.

In recognition of the fact that agricultural research is a major factor that promotes agricultural development, better practices, increase yields, more income and a healthy, well-fed population, the Nigerian government established research institutes to create a research environment for scientists to conduct researches into the various areas of agriculture such as crop production, animal husbandry, fisheries, control of pests and diseases and soil management.

The results of research carried out by the agricultural scientists are recorded and published. This is in order to make such information available to other research workers for further research or for immediate use by practicing farmers on the field. Information generated from research is packaged, organized and stored in libraries or prepared in other formats such as posters, television and radio jingles or public announcements to reach the ultimate users of the information that has been generated.

Aina, (1993) identified six categories of agricultural information users, namely:

- Policy makers and planners
- Researchers
- Extension staff
- Educators and students
- Agro-based industries and service staff
- Farmers

According to him, each of these sectors contribute directly to the improvement of agriculture, hence, relevant information provided to each category of the user population will contribute positively to the development of agriculture in Africa.

Kaniki (1992) combining the ideas of different scholars, defined information as ideas, facts, imaginative works of mind and data of value potentially useful in decision-making, questions and answers, problem solving, etc. which can reduce uncertainties. He defined need as a state of lack of desirable requisites or commodity (that is, information) necessary to deal with a situation as an individual sees fit. He reckoned that information needs vary with user, time, purpose, location, alternatives available and so on. Also, that the necessity for seeking a better understanding of the information needs of either a group or groups of persons, particularly by information professionals is to assist them to design better systems and provide information to meet their needs.

Kaniki (1992) further stated that agricultural researchers in Africa have a variety of information needs which must be met in order to conduct quality research and thus generate appropriate information to enhance development.

According to Chief Wepia (1993), researchers need information to further their knowledge of subjects of interests and to know what has already been done in order to avoid duplication of efforts and results. He examined the situation in Zambia and found that agricultural scientists were seen to have limited access to relevant information because the agricultural libraries do not have enough resources to satisfy the needs of their users. He concluded that scientists and technologists (including agricultural researchers and indeed policy makers) need up-to-date information at the time that it is required and in usable form to keep them in contact with each other both locally and internationally.

Ojiambo (1993) noted that agricultural scientists are both information generators and consumers, with their information needs varying, depending on their subject specialization. They need information on current development and new discoveries in agricultural and farm technology, farmers' problems, farmers' information communication patterns; how to access and search for information and where to get information materials for research.

Ojiambo further observed in his paper the infrequent use of agricultural libraries and documentation centres by research scientists. His report revealed that in Kenya, only a total of 26.3% reported that they used agricultural libraries and documentation centres either once a week and 37.7% less than once in a month.

Bender *et al* (1994) stated that we live in the information age and information is one resource that increases in value the more it is used. Therefore, the value of information generated by agricultural research in the form of research results, discoveries, breakthroughs and new and improved agricultural products is enhanced by its availability for use by research scientists to make way for more advanced improvement in the field of agriculture.

This paper examines the information needs of agricultural research scientists and their information seeking behaviour. The aim was to enable information professionals provide better and more relevant services to meet such needs.

METHODOLOGY

A questionnaire was administered on agricultural research scientists

located in five agricultural research institutes in Ibadan, Nigeria. These are the:

- Cocoa Research Institute (CRIN)
- Forestry Research Institute of Nigeria (FRIN)
- National Horticultural Research Institute (NIHORT)
- Institute of Agricultural Research and Training (IAR&T)
- International Institute of Tropical Agriculture (IITA)

The choice of Ibadan for this study was informed by the fact that the city has the highest concentration of agricultural research institutes in Nigeria. (Adedigba, 1984).

For the purpose of this study, 87 (60%) research scientists out of an estimated 145 were randomly selected. Out of a total of 87 copies of the questionnaire administered, 62 were returned. This constituted a 71.3% response.

RESULTS AND DISCUSSION

Table 1:
Distribution of the Respondents

Research Institute	No. of questionnaire distributed	No of questionnaquire returned	%
CRIN	13	10	76.9
FRIN	12	12	100
NIHORT	18	10	55
IAR&T	20	11	55
IITA	24	19	79.2
TOTAL	87	62	71.3

Out of 13 copies of the questionnaire administered at CRIN, 10 (79.9%) were completed and returned. At FRIN, there was 100% response as the 12 copies of the questionnaire administered were completed and returned. From NIHORT, 10 or 55% of the questionnaire were completed and returned out of 18. For IAR&T, 11 or 55% out of 20 were retrieved while for IITA, 19 or about 79% out of the 24 copies of the questionnaire were completed and returned.

The research scientists who constituted the respondents in this study were found to represent various areas of specializations that included:

Biochemistry	Microbiology
Molecular biology	Plant breeding
Entomology	Horticulture
Biometrics	Ecology
Botany	Animal Nutrition

This gives an insight into the complex nature of the information requirements of the agricultural research scientists. 82% of the research scientists indicated that they needed information relating to other areas of agriculture other than their own (Table VI).

Table II:
Frequency of Library Use

Response	Frequency	%
Very often	25	40.3
Often	33	53.2
Occasionally	4	6.5
Rarely	-	-
Never	-	-

Analysis of the questionnaire also showed that 53.2% of the scientists indicated that they consult the library often to obtain information on their research work and 40.3% do go to the library very often. This gives an insight into the information seeking behaviour of the agricultural scientists.

Table III:
Information Sources Consulted

Information sources	No of respondents	%
Journals	59	95.2
Books	55	88.7
Research progress reports	40	64.5
Unpublished reports	15	24.2
Indexes	11	17.7
Abstracts	40	64.5
CD-ROM Searches	14	22.6
Slides	1	1.6
Maps	12	19.4

With 95% response, journals appeared to be the favourite information source being consulted by agricultural research scientists. (Table III). This is followed by books, with 88.7% response and research progress reports and abstracts respectively having 65% response each. Unpublished reports constituted a low percentage of information sources consulted probably because they are not available in the libraries or because of limited awareness of their availability. However, they constitute an important source of information and sometimes contain more accurate and current information than that contained in journal articles. Also, the low percentage recorded for CD-ROM searches can be linked to the fact that majority of the institutes used in this study do not have computer systems. As at the time of this study, only one of them had personal computers. Majority of the respondents therefore, had limited access to this particular information source.

On where these information sources are accessed, the highest percentage of the respondents (69.4%) said they got their information in the library, 45.2% do so by correspondence with colleagues while 11.3% turn to their personal collections as shown in Table IV.

This finding is in agreement with the observation of Oduwole (1999) in a study of the impact of medical libraries on clinical decision making, where learned journals were the most commonly used source of information (95.2%).

Table IV:
Where Information Sources are Accessed

Source	No. of Research Scientists	%
In research institute library	43	69.4
In your personal collection	7	11.3
Correspondence with colleagues	28	45.2

Table V
Other types of Information Needed

Type of Information	No of respondents	%
Circulars on new agricultural policies	19	30.7
Improve crop varieties	21	33.9
Job vacancies	22	35.5
Training, programmes, conferences, workshops for personal improvement	46	74.2

Apart from information relating directly to their research interests, the responding research scientists indicated that they need information on other areas. Information on training programmes for personal improvements ranked highest (74.2%).

Most of the agricultural research scientists are aware of the various information services collected by libraries to meet their information needs, but a low percentage of them (37.1%) as indicated in Table IV below, are aware of the existence of selective dissemination of information (SDI) which is fashioned to meet the peculiar needs of individual researchers.

Table VI:
Awareness of Information Services Rendered by the Libraries

Information Services	No of respondents	%
Referral services	41	66.1
Selective dissemination of information (SDI)	23	37.1
Current awareness services	33	53.2
Indexing and abstracting services	41	66.1
Compilation of bibliographies	36	58.1
Interlibrary loans	27	43.6

Table VII
Scientists' Assessment of Library Collections

Response Variable	No of respondents	%
Very adequate	16	25.8
Adequate	15	24.2
Average	19	30.7
Inadequate	10	16.1
Very inadequate	1	1.6

From Table VII above, most of the agricultural research libraries surveyed were scored low by respondents regarding the adequacy of their collections. 24.2% rated the collections as adequate and 30.7% rated them average. Also, 61.3% of the research scientists indicated that lack of information hinders the progress of their research work. 27% had actually stopped their research due to lack of information (Tables VIIIa and VIIIb).

Table VIIIa:
Does Lack of information Hinder Research?

Response	No of research scientists	%
Yes	38	61.3
No.	22	35.3

Table VIIIb:
Have you had to stop a research work due to lack of Information

Response	No of research scientists	%
Yes	17	27.4
No.	44	71.0

The agricultural research scientists surveyed were asked to identify factors militating against their access to information and it is significant to note that only a very low percentage of them (12.9%) indicated lack of awareness about where to obtain information (Table IX).

**Table IX:
Factors Militating Against Agricultural Research Scientists' Access to
Information**

Factors	No of research scientists	%
Lack of awareness on where to obtain information	8	12.9
Obsolete information sources in your research institute's	27	43.6
Far distance of one agricultural institute to other	15	24.2
Transportation costs to the location of information needed	22	35.5
Postage costs	19	30.7
Photocopying costs	22	35.5
Cost of information materials	27	43.6

CONCLUSION

Agricultural research scientists are both generators and consumers of information. The information produced through the results of their research work is used to provide information for other research scientists in their own research activities or utilized by extension service workers to solve the problems of the farmers on the field.

This study reveals that agricultural research scientists have complex information needs because of their varying areas of specialization and their need for information in other areas of agriculture other than their own. They rely mostly on the research libraries and correspondence with colleagues for meeting their needs. At the same time, the services of their agricultural research libraries were not rated high. This suggests that in order to enable agricultural research scientists to efficiently contribute their quota to the development of the agricultural sector of the Nigerian economy, the quality of information services provided by agricultural libraries need to be enhanced to allow for cooperation in the form of resource sharing. This should lead to the formation of effective networks among the said libraries and could ultimately result in the creation of a national database on agricultural information.

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