

Information Needs, Information Seeking Behavior and Information Provision to Rural Farmers in Bogoro Local Government Area, Bauchi State, of Nigeria

Yusuf Makinta

Department of Library and Information Science,
Faculty of Education, University of Maiduguri

William Yakubu

Department of Library and Information Science,
Faculty of Education, University of Maiduguri

ABSTRACT

This study examined information needs, information behavior and information sources of rural farmers in Bogoro Local Government Area of Bauchi State. The study was gadded by four (4) objectives and four (4) research questions. A survey research design was used for the study with one hundred and twenty-two (122) populations drawn from farmers association groups (FGAs). The instrument used included questionnaire, interview and observation. Data collected was analyzed used descriptive statistics of frequency counts and percentages. The findings revealed that rural farmers need more information on various aspects of farming activities. Majority of them do not seek information from governmental, non-governmental agencies and the media. They relied on traditional methods among others. Four recommendations were proffered.

INTRODUCTION

Bauchi State is located in the North Eastern Zone of Nigeria, created in 1976 by the then military head of state, General Murtala Muhammad. As it is now Bogoro Local Government Area (LGA) becomes one of the 20 local governments in Bauchi State. The inhabitants' of the local government area are the Zaar or Sayawas, Gerawas, Jarawas, kirfawas, Turawas, Bolewas, Butawas, Mbadawas, and the Fulanis. Most of these tribes are rural dwellers or farmers. Preliminary observations and interactions with some of them by the researchers showed that they require adequate, relevant and sustainable information on modern farming technics to successfully carry out their farming activities in order to meet their set goals.

The rural farmers live in scattered communities constituting the teeming rural communities that constitute the majority population of the local government area. The rural communities could be said to experience information poverty because the information sources and resources are very remote from them. A apart from the scattered locations characterized by information poverty, there is a socio-cultural dimensions of illiteracy among the rural communities. The term illiteracy used in the current study refers to their inability to read, write and comprehend printed or non-printed information resources in their non-indigenous languages. They are the silent majority who are economically not buoyant to access information they want.

Telecommunications in the rural areas are always poor and developmental efforts are still largely traditional. Other predicaments retarding developmental efforts in the area under study is insecurity: communal clashes, herders-farmers clashes over grazing lands, boko haram insurgencies and its aftermath, seasonal flooding, bad roads, inadequate health facilities etc.

The researchers interaction with some rural farmers and government officials, indicate that there were efforts from government agencies like the National Agricultural Extension and Research Liaison Service (NAERLS) that set up branches tagged National Farmers Helpline Centers (NFHCs) to distribute improved seeds, providing relevant information and advisory services. However, it seemed the impact of governmental agencies are yet to be felt as the farmers are yet to be transformed from manual traditional farming practices to modern mechanization. Even in the area of animal husbandry, the Fulani tribal groups who are sedentary who are popularly referred to as Cattle Herders visibly roaming with their cattle, goats, sheep and camels searching for water and grazing lands causing conflicts with other farmers and disrupting traffics on major roads.

Based on the researchers' observations, it seemed the rural farmers in Bogoro Local Government Area were facing challenges of having access to appropriate information on various aspects of sustainable agricultural development. The researchers therefore assessed their information needs, information seeking behavior and information resource provision as well as their awareness of the available information agricultural programmes organized by or non-governmental agencies.

OBJECTIVES OF THE STUDY

The objectives of the study determined:

1. Information needs of rural farmers in Bogoro Local Government Area of Bauchi State
2. Information seeking behavior of rural farmers in Bogoro Local Government of Bauchi State
3. Information sources provision to rural farmers in Bogoro Local Government Area of Bauchi State
4. Awareness of available information programmes on rural farming activities.

RESEARCH QUESTIONS

The following research questions guided the study:

1. What are the information needs of rural farmers in Bogoro Local Government Area
2. What are the information seeking behavior of rural farmers in Bogoro Local Area
3. What are the available information sources rural farmers consult in Bogoro Local Government Area
4. What level of awareness of information programmes mounted towards improving rural farming activities in Bogoro Local Government Area

SIGNIFICANCE OF THE STUDY

The beneficiaries of the outcome of the study are the rural farmers, governmental and non-governmental agencies concerned with agricultural development, researchers and policy-makers. The rural farmers will benefit if the outcome of the study is translated into local languages and transmitted through their village heads, community leaders, and local

government information offices. This will encourage the rural farmers to embrace literacy as a means of improving their way of live. Governmental and Non-governmental agencies as well as policy makers will benefit with the outcome of the study in agricultural planning.

SCOPE OF THE STUDY

The study covered famers that engage in various rural farming activities and registered members of five (5) Farmers Association Groups (FGAs) in Bogoro Local Government Area of Bauchi State. The farmers' groups are: Barkudu Youth Rice Farmers (BYRF), Dandalin Makiyaya(DM), Bogoro 11Field Farmers Cooperation Society (BFFC), Talati Group(TG) and Vinangbon Farmers Group (VYFG). The variables studied include information needs, information seeking behaviour, and information provision and information awareness.

REVIEW OF RELATED LITERATURE

This study is anchored on Information Needs Concept and Information Seeking Behavior Concept. According to Charles Naumer and karen Fisher (2017) the concept of "information need" has no universally accepted definition but it dependent on the perspective to which it is used. It is a user centered paradigm in linkage with models of information seeking which is relatively new area of Library and Information Science (LIS) which forms a major part of "User Studies".

Wilson's (1981) Model of Information Behavior

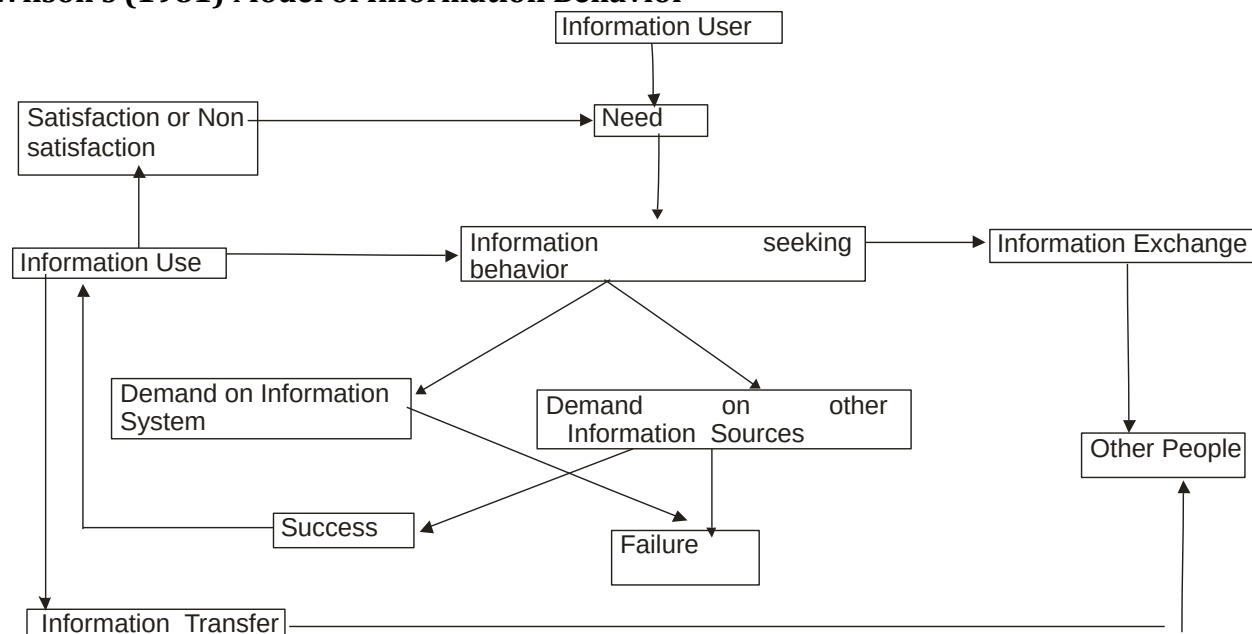


Fig 1: wilson's Information Behavior Model

Like other social science terms, any attempt to define information one is confronted with semantic terminological and conceptual difficulties. Aguolu (2002) puzzles "Does information belongs to informatics, to management information systems, to objective and documentary information, or to information belonging to public relations as activity"? Information tends to be used by some scholars interchangeably for data or knowledge. However, the importance of information in human development cannot be overemphasized. Information is required for

every day activity in all disciplines and professions. Information can be stored in books, periodicals, newspapers, technical reports, pamphlets, microforms, conference or seminar papers of learned societies and professional associations, magnetic tapes, audio-visual materials etc. digital or printed. According to Ochogwu (1998) the relationship in proper generation, organization, accessibility and utilization of information between the urban and rural especially in the developing countries like Nigeria can be likened to the international symmetries or imbalances between the north and the south blocks when we talk of international politics of information. In other words, the north as considered as developed or industrialized countries compared with the south consisting of less developed countries. Thus, the urban communities in Nigeria relatively enjoy some form of information overload because they are nearer to sources of information as compared to the rural communities who are always in dilemma of information poverty because they are very remote from information sources.

In a study entitled "The Library in Rural Nigeria: Expectations of the Twenty-first Century" Makinta and Dawha (1992) captured some characteristics of the rural dwellers in their rural environments. They constitute about 70% of Nigeria's population and are illiterate in terms of lack of developing reading culture. They live in small and scattered communities; have poor transport and road systems and generally lack money to facilitate commercial activities. Governmental development efforts are urban biased, thus the ruralites suffer from deficiency of essential infrastructure like inadequate water for human and animal consumption and for dry season farming as well as functional libraries and information centers. However, majority of dwellers still depend on traditional farming, carpentry, weaving, dyeing etc. at survival level. Certainly, this situation has implication for libraries and information centers especially national and public libraries that are ICT complaints. They should not merely store documents and preserve them, but should device mean by which the contents of such documents are rapidly and effectively transmitted to not only urban centers but to the majority rural dwellers.

In a study carried out by John, Wakilu and Olateju (2013) on agricultural information needs of rural farmers in Ojo Local Government Area of Lagos State, Nigeria, out of one hundred and twenty (120) farmers, eighty percent (80%) of the sampled farmers expressed their information needs for various purposes of agricultural activities ranging from reliable seedlings, safe fertilizer application, storage, etc. as well as how to obtain loan from governmental and non- governmental financial organizations. They however expressed low satisfaction having access to agricultural information being provided by libraries and information centers, governmental agencies like that of Ministry of Information (MI), National Orientation Agency (NOA) and the Electronic Media (EM). They have little or no idea of agro-industrialization as their farm products are either consumed or retailed in local markets.

In a related study, Bernard, Dulls and Honesta (2014) assessed the information needs of rice farmers in some selected villages in Kilombero District, Mongoro Region in Tanzania. The result of the study revealed that rice farmers had variety of information needs relating to agricultural product marketing, weather conditions, agricultural credit/loan accessions, storage methods, agricultural diseases, pest control and safe handling of pesticides.

There is no doubt Information needs in every human endeavor is always full of uncertainties which can only be resolved through information seeking. In other words, information behavior,

information use and information sources provision are products of information needs. According to Wilson (2000) information seeking behavior is the totality of human behavior in relation to sources and channels of information, including both active and passive information seeking and information use. Information seeking behavior cuts across all subjects of human development in communities; whether underdeveloped, developing or developed.

METHODOLOGY

A research survey method was adopted for the study, the population of the study consisted of 136 members of 5 different Farmers Association Groups (FGAs) in Bogoro Local Government Area. The researchers used a self-designed Questionnaire titled Assessment of Information Needs and Seeking Behavior of Rural Farmers in Bogoro Bauchi State (AINASBORFIBBS) as tool for data collection. Interviews/discussion were also conducted. One hundred and thirty six (136) questionnaire were distributed and 122 valid copies were collected. The data collected were analyzed using frequency counts and percentages.

Table1: Demographic data: educational qualification, age, farming experience and farming period engagement= (122)

S/NO.	Educational Qualification	Frequency	Percentage (%)
I	Primary School Certificate	8	7
II	Secondary School Certificate	44	36
III	NCE /ND Certificate	48	39
IV	HND/Degree Certificate	20	16.
V	Others	2	2
S/NO.	Age and Farming Experience	Frequency	Percentage (%)
I	5-10 YEARS	18	14
II	11-15 years	20	16
III	16-20 years	21	17
IV	16-20 years	21	17
V	21 and 25	40	33
VI	26 and above	40	33
S/No.	Farming period Engagement	Frequency	%
I	Rainy Season Farming	18	15
II	Dry Season Farming	6	5
III	(Both rainy/dry season farming)	35	29
IV	Mixed farming		
Total		122	100

Source: Field Survey, 2023

Table 1: Shows that the selected farmers under study had formal education. In other words, they are literate in terms of comprehending simple reading and writing in English or any other Nigerian languages. As per age and farming experience, majority are 26 and above years of age under the study.

The farmers also have specific periods of farming. The periods are rainy seasons and dry seasons. They practice mixed farming involving growing of crops and rising of lives stock. However, mixed farming practices could not accurately be determined due to the fact that

majority of the farmers were Fulani wonderers who move from one location to others with their flocks in the bush competing for grazing lands and water for their animal consumption after their womenfolk milked the animals in the mornings. They are always busy from “cork-crow to when the chicken come roost.”

Question One: What is your information need preferences?

Table 2. Level of information needs among rural farmers (N=122)

S/NO.	STATEMENT ON	M		A		BA	
		FRQ	%	FRQ	%	FRQ	%
I	Planting methods	76	62.3	41	34	5	4
li	On new seeds and storage methods	65	53.3	50	41	7	6
lii	Agricultural credit/loans	51	41.8	41	34	30	25
lv	On how to use manure, fertilizer and weed controls	73	60	42	34	7	6
V	On pesticides availability application and marketing	63	52	44	36	15	12
Total		328	2689	218	179	64	52
Average		66	54	44	36	13	10

KEY: M=Maximum, A=Average and BA=Below Average

Table 2: shows an average of 66% of the farmers needed more information on planting methods. This is followed by frequency of 73 of those who prefer to access more information on the use of manure and new fertilizers and weed controls. Also 50% require information on both new seeds; storage methods and pesticide application. Those who need information on how to apply and obtain agricultural credit/loans are below average.

Question 2: Which channel do you seek information and how often?

Table 3. Statement on Information Seeking behaviors of rural farmer-N=122

	STATEMENT	VO		O		NO	
S/N		FRQ	%	FRQ	%	FRQ	%
	family relatives' friends' neighbors and colleagues	110	98	92	75	32	26
	Library and information Centre's	23	19	29	24	70	58
	Radio and television	36	29.5	41	34	45	37
	Local government and NGOS	22	18	29	24	71	58
	Newspaper's magazines and pamphlets	25	21	40	23	57	47
	Agricultural officers	30	25	44	36	48	39
	Agricultural pesticides dealers	40	33	32	26	50	41
Total		256	196	307	251	373	265
Average		32	24.2	38	31.3	47	33

Keys: VO=Very Often O=Often and NO=Not Often

Table 3: shows that only an average of 32 (24 %) very often sought information, 38 (31%) often sought information and 47 (33%) revealed they don't seek information.

Question 3: what are the preferred sources of information you use?

Table 4: Sources of Information Preferred by Rural Farmers-(122)

Statement	MP		P		LP	
	Frq	%	Frq	%	Frq	%
Families	63	52	40	33	19	16
Neighbors	65	53	48	39	9	7
Colleagues	70	57	46	38	6	5
Past experience	80	66	30	25	12	10
Radios / televisions	37	30	33	45	37	37
Agricultural extension officers	45	37	39	32	38	31
Books	40	33	45	37	37	30
Newspapers/ magazines	32	26	36	30	54	44
Library / information centers	35	29	37	30	50	41
Gsm phones	44	36	30	25	48	39
Total	511	419	391	321	318	221
Average	51	42	39	32	32	22

Keys: MP=Most preferable; P=preferable; LP=Least preferable.

Table 4: Shows 51 (42%), indicated the most preferable sources of information, 39 (32%) of the respondents indicated the preferable sources and 32 (22%) revealed the least preference. However, 88 (66%) still relay on their traditional way of farming.

SUMMARY OF RESEARCH FINDINGS

The summary of the findings are as follows:

1. The genuine and identified rural farmers in Bogoro Local Government Area (LGA) of Bauchi State of Nigeria are who are based in farming communities with a lot of modern agricultural information needs.
2. Majority of the rural farmers' information seeking behaviors do not yield meaningful solutions to their farming problems. They still relay on traditional farming practices.
3. Majority of the rural farmers sought agricultural information from friends, relatives, neighbors, local traders from other villages etc.
4. The rural farmers' access inadequate agricultural information from governmental, non-governmental agencies, library and information centers.

DISCUSSION

Based on the findings and other related studies, it is obvious that rural farmers whether in Bogoro Local Government Area of Bauchi State of Nigeria, rural communities all over the world have information needs on sustainable agricultural development. This assertion has been in line with studies of John, Wakilu & Olateju (2013), Mahindarathne & Quingfei (2018), Matavelo (2008), Msuya, Matovelo & angle (2016), Rroja (2018) Yusuf (2012) and many others worldwide. Satisfying the information needs of rural farmers leads to massive food production. This depends on political will at local, national, regional and international levels. It is hoped that

the forth coming international summit titled “Launching Africa into the Global Space with Transformational Leadership and Innovation organized by Greenfield Executive Education Nigeria in Singapore (August 12^{to} 18) will address the plight of rural farmers for squaring global food security.

With respect to the rural farmers’ information seeking behavior, the study revealed that they mostly they sought agricultural information from local government information department offices, community leaders, non-governmental organizations (NGOs) library and information centers. Some seek information from newspapers, magazines and pamphlets. However many prefer to conveniently follow non-formalized channels. This situation can be attributed to their educational levels, farming information carriers not written in their local languages as well as infrequent broadcasts on farming activities. This is in tandem with Acheampong, Frimpong, Owosu & Dulle (2017) study on information seeking behavior and utilization of rice farmers in the Ejisu-Juaben Municipality of Ashanti Region of Ghana. Also the study collaborates with that of Demet, Nilay & Marco (2016) comparable study on information seeking behavior and digital information needs of rural farmers in Turkey and Sweden (2) countries. Furthermore, the study is in line that of Mahindaratne and Qingfel (2018) on “ Information Needs Seeking Patterns of Farmers within the Changing Information Environment: A Case Study of Sri Lankan Vegetable Farmers.” Thus the plight or situations of rural farmers in relation to information needs and information seeking behavior is global which affect global food security which requires global attention

Finally, the finding showed that rural farmers of Bogoro Local Government Area access inadequate agricultural information from governmental, non-governmental agencies and libraries/information centers. However discussion with local government officers, NGO spokesmen and library and information specialists, attributed this to the farmers’ pastoral engagements in their remote villages and bad roads. That is why the rural farmers preferred using interpersonal sources for accessing farming information. This is in line with the doctoral thesis of Matovelo (2008) on the accessibility and use of agricultural information for empowerment in Morogoro region of Tanzania.

SUMMARY, CONCLUSION AND RECOMMENDATION

This research to accesses the information needs and information seeking behavior as well as information provision to rural farmers in Bogoro Local Government Area of Bauchi, of Nigeria. As a background it was noticed that despite the abundance of agricultural land farming activities still primitive seing farmers still use hoes, cutlasses cow bulls to cultivate the arable lands leading to low crop production. The study adopted the Wilson’s Information Behavior Model and literature related to the subject area reviewed. The researchers used Research Survey Method, self-designed questionnaire, interviews, and documental source as instruments of the study, the data collected were analyzed using frequency counts and percentages. The findings revealed that the rural farmers needed more information but their information seeking behavior not realistic and rely mainly on oral information for traditional farming practices. There was also inadequate information provided by governmental and non-governmental agencies. Agriculture is a serious business that requires commitment, funding, reasonable cost, right and appropriate inputs beginning from seeds.

Conclusion

Based on the findings it was concluded that rural farmers in Bogoro Local Government Area require a lot of information on various aspects of rural farming: how to use manure/fertilizers, weed control, high-breed seeds, pesticides, credit/loans just to mention but few. It was also concluded that due to lack of exhibiting proper information behavior was creating gaps between information providers and information providers making information accessibility difficult if not impossible. It was also concluded that the rural are mostly were non-sedentary farmers and therefore have no time to access proper information for rural agricultural development.

Recommendations

1. Nigeria has many agricultural research institutes, colleges of agriculture at both federal levels. It should be made by law to translate their research findings into local languages and make access to famers.
2. Government should provide favorable incentives and agricultural inputs and infrastructure to encourage younger generation to be fully engaged in agriculture.
3. Cattle readers moving from one location to many locations looking for grazing lands should be rehabilitated into rural communities in form of ranches.
4. There is need for information professionals to set up rural community information centers in every district or village as a melting point for information related activities such as television and video viewing, exhibitions of relevant posters and other bills etc. in aid of public enlightenment geared towards activities of rural farming.

References

1. Aguolu, C. C. (2022) Libraries and Information Management in Nigeria: Seminar Essays on Themes and Problems, Maiduduguri, Ed-Linform Services.
2. Acheampong, L.D., Frimpong, N. B., Alexander, A, Asante, B.O.& Maxwell, D. A. (2017) Assessing information seeking behavior and utilization of rice farmers in the Ejisu-Juaben Municipality of Ashanti Region of Ghana. *Agricultural and food security*, 6(2) 1-9
3. Benard , R., Dulle, F. & Honesta, N. (2014) Assessment of information: needs and seeking behavior of rice farmers in Tanzania : A case study of Kilombero District,Morogoro. *Library Philosophy and Practice(e-journal)*, 1071. Available at <http://digitalcommons.unl.edu/libphilprac/1071>
4. Demet , S., Nilay, C & Marco, S. (2016) . A comparative study of information seeking behavior and digital information needs of farmers in Turkey and Sweden. *International Journal of e-Business and e-Government*. 8(2) ,2146-0744
5. Mahindarathane, M.G,P.P. & Quingfel, M. (2018) information needs and seeking behavior patterns of farmers wiyhin the changing information environment: A case study of Sri-Lanka vegetable farmers. *Information and knowledge management*, 8(4) ,37-49
6. Matovelo, D.S. (2008) Enhabcing farmer's access and use of agricultural information: A case study of Morogoro Region. Unpublished Doctoral Thesis, University of Dares-salaam, 128-130
7. Msuya J., Matovelo D. C. & ANGELLE, C. (2016). Assessing and Information sources of urban and urban livestock keepers in Kinondoni and Morogoro District of Tanzania, 100-123

8. Makinta, Y. & Dawha, E. M. K. (1992) The library in rural Nigeria: Expectations of the Twenty-first century, *New Library World*, 8 (1104) 11
9. Ochogwu, M.G.(1998) Redefining information structure and services for the rural majority. Issues in the information profession: Nigerian perspective. Edited by Tijani Abubakar, Zakari Mohammed and John Otim. Published by NATIONAL Association of Library and Information Science Educators (NALISE) and National Library of Nigeria (LNL)
10. Wilson T.D. (2000) Recent Trends in User Studies, Action Research and Qualitative Methods. *Information Research* 5 (2). Available at <http://information.net/ir/5-3/paper76.html>