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Agricultural Information Sources Utilized By Farmers In Benue State, Nigeria.

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Abstract
The study was undertaken to determine the sources of agricultural information utilized by farmers in Gboko and Makurdi Local Government Areas of Benue State, Nigeria. Simple analytical tools such as percentages, frequency, tabulation and correlation analysis (inferential tool) were used for analyzing the data collected. The analyses revealed that most (61.67%) of the farmers preferred extension agents as their source of information while the least (6.17%) source was libraries. The major constraint indicated by farmers in sourcings information was financial problem. The result of the correlation analysis indicates a significant relationship between age and source preference while there was no significant difference between other socio-economic characteristics examined and source preference. It was recommended that credit facilities or subsidies be provided to farmers to purchase radio receivers to enhance information sourcing. Also more extension agents be recruited and properly trained as they are main information source used by farmers. Also, in planning any agricultural information dissemination programme, age of farmers should be taken into consideration.

Key words: *Agricultural information source, sourcing constraints, utilization, Benue State.*

Introduction

The importance of agriculture in the economy of Nigeria is profound. Despite the growth of industries, oil and commerce it continues to be the principal economic activity of the people of Nigeria. Thus 70% of the people are engaged in agriculture but more than 70% of these farm at subsistence level (Okubanjo, 1990; Nigeria millennium Development Report, 2004). The Food and Agriculture Organization, FAO (1993) suggested that in order to enhance agricultural development, new commodities and new methods of production must be developed. In Nigeria, there are various agencies, research institutes, agricultural universities/colleges and non-governmental organizations that generate innovations and improved farm practices or technologies (Ilevbaoje, 1998). The primary function of the

dissemination component (agricultural extension, agricultural change agencies, private extension organizations, etc.) is the transformation of the agricultural sector of the national economy through promotion of rapid adoption and utilization of improved farming technologies by the utilization component ï the farmers (Ilevbaoje, 1998).

According to CTA (1996), Ozowa (1997) and Conroy (2003) the quantum of agricultural technology information available in the Nigerian systems developed by research institutes, and faculties of agriculture in universities is quite enormous. The problem therefore, lies with effective dissemination of information about these innovations by the dissemination agencies. Research institutes must disseminate their findings to the target group ï the farmers, while receiving feed back to indicate that communication was successful. The feedback is expected to expose areas requiring modification or further enquiry.

Information source is an institution or individual that creates or brings about a message (Statrasts, 2004). The characteristics of a good information source are relevance, timelessness, accuracy, cost effectiveness, reliability, usability, exhaustiveness and aggregation level (Statrasts, 2004). According to Oladele (1999), the efficiency of technologies generated and disseminated depends on effective communication which is the key process of information dissemination.

The development of agricultural technologies requires among other inputs, a timely and systematic transmission of useful and relevant agricultural information (messages) through relatively well educated technology dissemination (extension) from formal technology generation system (research) via various communication media (channels) to the intended audience ï farmers (Oladele, 1999). It is expected that the message from the client (effect) be passed back to the source or research (feedback) for the communication process to be complete.

Despite the attempt at technological innovation transfer, the wide gap between the level of production which research contends is attainable and that which farmers achieve suggests a missing link (Oladele, 1999). Also, weak linkages between the farmer, extension and researcher mean that the farmers are not included in the planning of the innovation and hence do not know where to get their technologies despite the fact that they are the end users. Agricultural information disseminated by different information sources need to be determined. It is imperative therefore to identify the sources of agricultural information utilized by farmers.

Some questions readily come to mind such as: What are these information sources? What are the channels through which the farmers get information on agricultural practices? What are the sources preferred by these farmers?

The purpose of the study is to determine the agricultural information sources utilized by farmers in Makurdi and Gboko local government Area of Benue State. The specific objectives are to: determine the socio-economic characteristics of farmers in the

study area; identify sources of agricultural information disseminated in the study area; identify the sources of information preferred by farmers; identify the constraints to sourcing information and determine the relationship between the socio-economic characteristics of farmers and source preference.

Methodology

The study covered Makurdi and Gboko local government Areas. Makurdi local government Area lies between $7^0$20ôï 8^0 north and longitude $8^0$21 ï 9^0 east (Benue Ministry of Internal Affairs, Makurdi). Gboko local government Area, on the other hand, is located almost at the centre of the State. Both Makurdi and Gboko local government Areas have similar cropping pattern. The popular crops are rice, yam, soyabean, maize and cassava. Annual rainfall is between 1016mm to 1524mm. The soil is mainly sandy-loamy. A sample size of 120 farmers was selected from the two local government areas with 60 drawn from each local government area using simple random sampling technique. An interview schedule was used to elicit information from the 120 selected farmers.

Descriptive statistics such as means, frequencies and percentages were used to analyze the result. Inferential statistics used was correlation to establish the existence of the relationship between sources preferred and socio-economic characteristics of farmers.

Results and Discussion

Demographic and socio-economic characteristics of the Respondents

Age: The age distribution of respondents reveals that majority (73.33%) of the respondents were within the ages of 21 ï 40 years. This shows that most of the respondents were young, active and adventurous and would probably patronize a wide variety of information sources.

Sex: We observed that majority (69.17%) of the farmers were males. This implies that since men take decision on farm management issues there is good ground for active information sourcing by the farmers.

Marital Status: Also most (58.33%) of the farmers were single. This implies that since single people have more freedom to move around to source for information. There is good ground for active information sourcing by the farmers.

Household sizes: The result also shows that most (77.50%) of the respondents had a household size of 16 and above persons. This implies that the large household size will ensure more net working for information and enhance more availability of information to farmers. In the tradition of African society, a household size is made up of a man, his wife/wives, children and number of dependents (Peil, 1976).

Education: Most (34.17%) of the respondents had tertiary education indicating high literacy level of the respondents. This is probably because Makurdi and Gboko local

government Areas are cosmopolitan, serving as State headquarters and centres of many tertiary institutions. This has positive implication for information sourcing.

Income: We also noted that most of the respondents (55.83%) had low annual income of N10,000.00 ï N50,000.00 from farming. This is in accordance with the general characteristics of the traditional farming system practiced in the rural area where returns from farming is low due to low investment by subsistent farmers (Conroy, 2003).

Farm size: In terms of farm size, most (37.17%) of the respondents had small farm size of less than two hectares. This shows the dominance of small farm size holdings in the study area. It is probable that most of the respondents had other source of income.

Sources of Agricultural Information used by Farmers

The result from Table 2 reveals that 29.17% of the respondents source their information from Radio Benue while 9.17% source their information from libraries. It was also noted that 37.5% source their information from friends while most (40.83%) of the farmers depend on extension agents for agricultural information. This may be as a result of the cosmopolitan nature of the study area where tertiary institutions are located and the potential application of technology by farmers to improve agriculture. Agricultural information transfer, sourcing and usage thrive better in places where farmers are highly educated (FAO, 1993; Zijp, 1994). On the other hand, it should also be noted that internet and library are still an elitist communication media for most people. However, it is expected that these communities may probably use internet and library more frequently as computer literacy level of respondents improve to source for information due to the high literacy level of the respondents.

Table1: Distribution of Respondents by Socio-economic Characteristics (n=120)

Age range (years)	**Number of respondents frequency**	**Percentage**
11 ï 20	7	5.83
21 ï 30	49	40.83
31 ï 40	39	32.50
41 ï 50	19	15.84
51 and above	6	5.00
Total	120	100.00
Sex		
Female	83	69.17
Male	37	30.83
Total	**120**	**100.00**
Marital Status		
Married	49	40.83
Single	70	58.33
Divorced	1	0.84
Total	**120**	**100.00**
Household size (persons)		
1 ï 5	7	5.83
6 ï 10	12	10.00
11 ï 15	8	6.67
16 and above	93	77.50
Total	**120**	**100.00**
Level of education		
No formal education	17	14.17
Primary education	27	22.50
Secondary education	35	29.17
Tertiary education	41	34.17
Total	**120**	**100.00**
Income (₦)		
10,000 ï 50,000	67	55.83
51,000 ï 100,000	23	19.17
101,000 ï 150,000	9	7.50
Above 150,000	21	17.50
Total	**120**	**100.00**
Farm size (ha)		
<2	41	34.17
2 ï 4	32	26.67
5 ï 7	29	24.16
Above 7	18	15.00
Total	**120**	**100.00**

Source: Field survey data, 2005.

Table 2: Distribution of respondents by sources of agricultural information used by farmers.

Sources	Frequency	Percentage
Radio Benue	37	29.17
Libraries	11	9.17
Friends	45	37.50
Extension Agents	49	40.83

Source: Field survey data, 2005.
Note: Multiple responses were recorded.

Information Source Preference

The result from Table 3 shows that most (61.67%) of the farmers preferred extension agent as source of information. The high percentage (85.00%) of farmers who preferred extension agents and friends could be as a result of the ability of these farmers to have face-to-face contact with these sources. It is also probable that they participate and observe the SPAT demonstrations conducted by the extension agents. Moreover, these sources allow a two-way process of communication. On the other hand, low percentage of use of Radio Benue and Libraries (18.33%) could be attributed to inaccessibility of libraries and non availability of radios due to cost of procuring them. It could also be due to the fact that both are one-way processes of communication .It is also probable that farmers may be on the fields all day long and would become too tired to listen to radio after the dayôs toil. This agrees with Ozowa (1997) who noted that often farmers get tired after a dayôs work to be able to listen to radios due to inappropriate timing of the programmes.

Table 3: Distribution of Respondents by Source Preference

Source preference	Frequency	Percentage
Radio Benue	16	13.33
Friends	28	23.33
Libraries	6	5.00
Extension Agents	74	61.67

Multiple responses recorded.
Source: Field survey data, 2005.

Agricultural information disseminated by Different Information Sources

The result from Table 4 shows that extension agent ranked highest as source of information on all the innovations introduced. The least source of information was libraries. The choice of extension agent could probably be as a result of farmersô observation and participation in result demonstrations, carried out by extension agents. This agrees with Swanson (1997) that farmers do better in what they see and practice than what they hear only. On the other hand, the low percentage preference for libraries as information source could be as a result of the elitist nature of libraries and lack of two-way process of communication inherent in libraries. The result shows low patronage of other information sources for technological information dissemination. This has poor implication for adoption of innovation. According to CTA (1996), limited access to agricultural information has, infact, been identified as one of the most serious constraint to agricultural information sourcing in West Africa.

Constraints to the Use of the Information Sources

From the survey, thirteen (13) problems were identified. Results in Table 5 reveal that majority (35.83%) of the farmers suffered from financial difficulty. This probably affected the sourcing of information from such sources. It also probably prevented them from trying some of the innovations available.

Also 15% of farmers indicated inadequacy of facilities/professionals which also affected the efficiency of agricultural practice and information use. While the least (1.67%) number of respondents indicated the use of non-participatory method as constraints. Therefore inadequate funds, (35.83%), inadequate facilities/professionals (15.00%) and incomplete/irrelevant information (14.17%) were ranked as 1st, 2nd and 3rd constraints respectively to information sourcing. This implies that only fund is a major problem to information sourcing in the study area. It is also probable that the availability of fund may resolve most of the constraints identified. Moreover, the problem of fund probably explains why respondents indicated that they source for information mainly from the extension agents who they regard as credible source and who usually visited them to offer free services.

Table 4: Distribution of respondents by agricultural information disseminated by different information source

Farm innovation	SOURCES OF INFORMATION									
	Radio Benue		Friends		Libraries		Extension Agents		Total	
	F	%	F	%	F	%	F	%	F	%
a) Mechanized system of farming	9	7.50	10	8.33	2	1.67	17	14.17	38	31.67
b) Fertilizer application	15	12.50	28	23.33	2	1.67	45	37.50	90	75.00
c) Spacing and planting dates	3	2.50	11	9.17	4	3.33	17	14.17	35	29.17
d) Soil test	2	1.67	6	5.00	1	0.83	10	8.33	19	15.83
e) Improved seed varieties	8	6.67	8	6.67	0	0.00	28	23.33	44	36.67
f) Vaccines and hygienic standard	3	2.50	5	4.17	1	0.83	17	14.17	26	21.67
g) Improved method of weed control	9	7.50	12	10.00	1	0.83	17	15.00	40	33.33
h) Improved method of controlling pest and disease	6	5.00	5	4.17	1	0.83	22	18.33	34	28.33

Multiple responses **Source**: Field survey data, 2005.

Table 5: Distribution of respondents by Constraints to use of information sources

Constraints	Frequency	Percentage	Rank
Inadequate fund	43	35.83	1
Wrong farming/repetition	15	12.50	4
Non-participatory method used	2	1.67	13
Inconsistency	11	9.17	6
Improper awareness	4	3.33	11
Distance/inaccessibility	5	4.17	9
Poor government management and policies	5	4.17	9
Feedback problem	3	2.50	12
Incomplete/irrelevant information	17	14.17	3
Complexity	7	5.83	8
Disruption/uncertainties	13	10.83	5
Language barrier/understanding	9	7.50	7
Inadequate facilities/professionals	18	15.00	2

*Multiple responses recorded. Source: Field survey data, 2005.

Relationship between Socio-economic characteristics and source preference by farmers

In order to determine the relationship between source preference and socio-economic characteristic of farmers, a correlation analysis was carried out. The result showed that of all the socio-economic characteristics examined, source preference is significantly related to age (r = 0.192, P≤ 0.05) but not significant related to household size (r = -0.127, P≤ 0.05), level of education (r = 0.093, P≤ 0.05), income (r = -0.070, P≤ 0.05), farm size (r = 0.082, P≤ 0.05). According to Swanson *et al* (1997), socio-economic characteristics such as income, education and age influence farmerôs information source preferences. The implication of this finding is that in considering source preference of farmers, age of farmers must be given special consideration.

	Source preferred	**Age**	**Household size**	**Level of education**	**Income**	**Farm size**
Source Pearson correlation						
preferred	1.00	-.192*	-.127	.093	-.070	.082
Sign.(2-tailled)	.	.036	.169	.312	.448	.374
N	120	120	120	120	120	120

* = Significance P≤ 0.05

Conclusion and Recommendation

The main source of agricultural information in the study area are extension agent, friends and radio. From the findings it is also evident that extension agent is still the most preferred source amongst the sources of agricultural information available. The major constraint faced by farmers to the use of these sources was financial difficulty. Also, of all the socio-economic characteristics examined only age had a significant relationship to the source preference of farmers.

Therefore, agencies interested in agricultural information dissemination should support farmers financially in form of loans subsidies to purchase radio receivers and provide incentives to farmers to source for information on agricultural practices and innovation through libraries by providing adult and computer literacy programmes. In the same vein, more extension professionals should be recruited and trained to improve the farmer-extension ratio and effectiveness.

Finally, in planning, any agricultural dissemination programme for farmersô age should be considered because it determines source preference by farmers.

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