

Farmers' Media Use Pattern in Adamawa State, Nigeria

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Abstract

The study was carried out in eight villages in zone two of the Agricultural Development Project in Adamawa State, Nigeria to examine farmers' media use pattern. The study reveals that information on most of the agricultural practices, were sought and found on radio. Marketing and fertilizer information was sought and found in interpersonal media (fellow farmers and extension agents) respectively. This study also reveals that farmers actually found agricultural information on agricultural practices in the media sources from which they sought them. Finally it can be concluded that radio, extension agents and fellow farmers are still the most frequently used sources for obtaining information on improved agricultural practices. These findings suggest that more agricultural radio programs with local relevance should be broadcast on a regular basis as it would increase not only the knowledge base of farmers, but may as well lead to increased adoption and utilization. While farmers appear to differentiate media appropriate for specific practices, extension agencies should package marketing information for direct dissemination to farmers. Farmers' high non-seeking behavior of improved agricultural practices, post harvest handling information calls for concerted effort by authorities to intensify campaigns to educate farmers of the scheme's ability. It is thus imperative to revitalized extension system to increase farmers contact with extension agents through attendance of agricultural shows, demonstrations and other fairs.

Introduction

Accessing information coming from physically remote rural locations in the developing nations was until recently, difficult and costly; and it was equally difficult to deliver information to the farmers, extension workers and researchers who live and work in such places. Telex services were tedious, telephone were unreliable, publications were costly, mail service were deteriorating and radio service were few and of poor quality (Greenidge 1999). There was little expectation that the information needs of the developing world could easily be met let alone those of the agricultural sector. For a long time, therefore, the global store of agricultural knowledge seemed likely to remain just as inaccessible as before.

The perception that information exchange problems still constitute a major constraint to agricultural development remains widespread, and gives rise to negative views of the prospects for improvement. Yet enterprising individuals and institutions have against all odds, taken steps – some modest, some bold – to help revolutionize the management of information for agricultural development.

In Nigeria, research into media use pattern of farmers has received a boost in the last two decades. This increased interest is based on the premise that an understanding of farmers' media use pattern will facilitate dissemination of appropriate technology to farmers with the consequent increase in agricultural production through their adoption of this innovation. Furthermore, such studies enable researchers or policy makers obtain crucial feedback necessary for adapting these innovations, if necessary to farmers' real situation.

This research paradigm has advanced knowledge about farmers' media use behaviors. However, the anticipated success story of the communication component of development programs has not materialized. This it seems can be traced to some fine conceptual distinctions lacking in the paradigm used in the previous studies. For instance, while it has been established that use various media sources, no differentiation has been made between where farmers actively seek and actually find agricultural information (Olowu and Igodan, 1998) In other words is it where farmers seek information that they also find it? Also, either previous researches have focused on sources of general agricultural information available to farmers or concentrated on only agronomic practices. Other agricultural information such as marketing, processing and storage which are of tremendous importance to the success of most farming business has been neglected. The problem being addressed in this study therefore is where do farmers seek and actually find different categories of agricultural information.

Theoretical framework

Investigation into farmers media use pattern in Nigeria has been conducted under two categories. There are the relational studies in which media use is reliant on types of messages (Voh, 1981) or is associated to the characteristic of the farmers (Patel and Ekpere, 1978). This approach has provided facts that farmer' media use relies on how dated or new an innovation is (Voh, 1981). Although this approach has also allowed for relating of specific agronomic practices to media use, it has left out such important agricultural practices as marketing,

financial management, processing, storage. Since Voh's study has shown that there is differential farmers' media use for awareness of agronomic practices, it became necessary to investigate, if the same trend is exhibited for credit, storage, marketing, financial management and processing practices.

The next category of media use investigation is the non relational approach. These studies have shown that the main sources of agricultural information accessible to farmers are radio, extension agents and fellow farmers (William, 1969; Amadi, 2007; Umar 2011). Also the approach has indicated that most used source is radio (Voh 1981; Igodan and Adekoye 1987; Amadi 2007 and Umar 2011) and extension agents (Clark and Akinbode, 1968; Amadi, 2007 and Umar, 2011). Either the relational and non-relational types or approaches have employed the concept media use interchangeably with either finding or seeking information (Olowu and Igodan, 1998). However, seeking and finding are two areas of media use model. For example, the medium a farmer seeks information about marketing from, may not necessarily correspond with the media he finds the information. There is the need to investigate such differentiations for communication strategies in development to yield the desired outcome.

Objectives of the study

The objectives of this study are specifically:

1. To determine the media farmers seek information from on eight agricultural practices.
2. To investigate the media farmers actually find information on eight agricultural practices.
3. To ascertain if there is any relationship between the farmers seek information from and the media they actually find the information.
4. To identify farmers' characteristics that determines their information seeking and finding behavior.

A multi stage random sampling technique was used to sample 200 farmers from nine villages in five cells of the zone II of the Adamawa Agricultural Development Project (ADP) of the state. Farmers were selected from the villages using the compound as the sampling unit. A compound is defined as a set of houses within the same enclosure.

Data were obtained through personal interview using structured interview schedule. The entire 200 interview schedules were dully completed with useable data. Respondents were asked to indicate which of the eight media (interpersonal and mass) they usually seek information about eight agricultural practices. They were also asked to indicate where they actually found information about these eight agricultural practices. The agricultural practices include; marketing, pesticides, herbicides, fertilizer, improved agronomic practices, improved seed, credit and storage. The data were analyzed using descriptive statistics and chi-square analysis which in essence is to determine relationship between farmers' characteristics and media use.

Findings

Information Seeking Pattern

The result as presented in table 1 shows that of the eight agricultural practices, six (pesticides, herbicides, improved seed, improved agronomic practices, credit and storage) were primarily sought from radio. However, marketing information was sought from extension agents. It means that farmers generally seek information about most agricultural practices from radio (mass media). This is the demonstration of the increasing use of transistor radio among the rural populace. Further analysis in the table also indicates that an average of about 25 percent of the farmers interviewed do not seek information on improved practices, storage and credit.

Table 1: Percentage of farmers seeking information on eight agric. practices from eight media sources

Media	Marketing	Pesticides	Herbicides	Fertilizer	Improved seed Variety	Improved agric. practices	Processing	Storage
Radio	18.4	45.2	33.8	19.5	26.8	41.6	54.8	36.8
Television	0,5	1.1	1.6	0.5	0.5	1.1	4.6	3.2
Commercial agents	-	4.3	3.3	22 .6	7.1	-	0.5	-
News papers	3.7	-	0.5	0.5	0.5	-	2.0	0.5
Agric. Bulletin	2.1	2.6	1.1	-	2.1	1.2	3.7	2.1
Fellow farmers	34.7	13.2	11.6	10.0	22.6	11.6	62.1	14.6
Extension agents	4.7	21.1	20.0	32.1	25.8	15.8	7.4	12.6
Family and relatives	28.4	2.6	4.2	8.4	5.8	2.6	-	4.7
Do not seek Information	7.4	18.9	18.9	6.8	14.7	26.2	24.8	25.4
Total	100	100	100	100	100	100	100	100

Source: Field work, 2011

Information Finding Pattern

Table 2 shows the sources through the farmers found information on agricultural practices. The table indicates that farmers found information about six agricultural practices primarily from radio. The technologies include; pesticides, herbicides, improved agronomic practices, processing and storage. Information pertaining to marketing was mostly obtained from fellow farmers; while information on fertilizer was provided by extension agents. In other words, the media farmers mostly found information on improved agronomic practices are radio, extension agents and fellow farmers. This study thus provide further validity to William, (1969); Amadi (2007) and Umar (2011) findings as regards farmers seeking behavior. The fact that fellow farmers are relied upon for marketing information may not be unrelated to lack of such information in the mass media. The dearth of marketing and pricing information in Nigerian dailies has been reported (Ala, 1988). It may as well mean that no substantial attention paid to

post harvest handling by the extension agents. Tables 1 and 2 suggest that radio, extension agents and fellow farmers are the media farmers sought and found agricultural information. This finding has also supported by Umar (2011).

Table 2: Percentage of farmers finding information on eight agric. practices from eight media sources

Media	Marketing	Pesticides	Herbicides	Fertilizer	Improved seed Variety	Improved practices	agric. processing	storage
Radio	19.3	29.5	31.5	15.8	27.8	40.5	53.3	32.2
Television	0.5	1.1	1.1	-	-	0.5	2.6	3.2
Commercial agents	4.7	20.5	21.0	31.1	23.7	14.7	5.8	11.6
News papers	-	4.7	2.7	20.6	1.1	-	0.5	-
Agric. Bulletin	1.2	-	-	-	0.5	-	-	0.5
Fellow farmers	1.6	1.1	1.1	-	0.2	3.2	6.2	2.1
Extension agents	34.1	11.1	9.5	7.4	19.5	8.9	0.5	12.5
Family & relatives	30.2	2.1	5.7	7.9	4.7	2.1	-	4.7
Do not seek Information	17.4	30.0	27.3	17.0	20.5	30.1	31.1	33.2
Total	100	100	100	100	100	100	100	100

Source: Field work, 2011

Information Seeking and Finding Pattern

The study sought to investigate if the farmers really find the information where they seek for it. Table 3 shows that 33.6 percent of the farmers interviewed sought information from radio with 31.1 percent actually finding information from the same source (radio). Similarly, 17.4 percent of the farmers sought information from extension agents and of this, 16.7 percent of the respondents obtained the information. On the other hand, 14.8 percent and 12.4 percent respectively sought and found information from fellow farmers. Further analysis in table 3 shows that 96 percent of the respondents who sought information from the extension agents actually obtained the information from the source. Approximately 93 percent of the respondents who sought information from radio in the study area actually obtained it. This may not be unconnected with the fact that development programs like Agricultural Development Project (ADP) and Fadama II Project in the state do reach out to the farmers through mass media. Significant number of the respondents (83.8 percent) also sought and found information from fellow farmers. This is a good demonstration of a strong social solidarity and interaction among the rural farmers.

Considering the relative percentages, it suggests that extension agents have more potentials as source of getting improved practices or innovations to the farmers. This also means that the relative information finding percentages or finding/seeking ratio of each source indicates that farmers found agricultural information from source they sought them. This may be a meeting of their limited understanding of media signals which they may have acquired

over the years due to exposure and experience. The application of such signals may have brought about this convergence in the media source from which information was sought and found.

Table 3: Percentage of farmers seeking and finding information on eight agricultural practices from eight media sources

Media	Seeking information	Finding information	Relative %
Radio	34.8*	30.2*	92.7**
Television	1.3	1.1	84.6
Extension agents	21.2	16.6	76.0
Commercial agents	5.3	3.9	73.6
News papers	0.8	0.7	87.6
Agric. bulletin	2.1	1.8	85.7
Fellow farmers	12.8	12.4	83.8
Family and Relatives	7.1	6.0	84.5
Do not seek or find information	17.1	26.3	N/A
Total	100%	100%	

*Total Percentage of respondents seeking or finding information from that medium

**Relative percentage of respondents that found information from the medium they sought it.

N/A = Not applicable

Farmers Characteristics and Media Use Behavior

The relationship between farmers' characteristics and their information seeking and finding behavior is shown in table 4. Farmers' education is significantly related to the media where farmers seek and find information on eight agricultural practices. For instance, education is significantly related to the media farmers sought marketing, pesticides and herbicides information ($X^2 = 54.28$; $X^2 = 19.50$; $X^2 = 26.11$) respectively. This means that level of literacy of the farmers determine to a greater extent, the seeking and finding behavior with information on production activities. Seeking behavior is higher among the literate farmers than the illiterate farmers.

Age is significantly related to the media farmers sought and found information on improved seed variety, improved agronomic practices and post harvest handling. It is important to note here that seeking and finding information on agricultural practices is common among the youth than the elderly farmers. This may not be unconnected with the fact that the older farmers are in most cases bound by tradition and not willing to accept new innovation.

Farm size on the other hand is also significantly related to sources farmers sought and found information on processing. The reason may also not be far fetch. The larger the farm size, the larger the output and hence the need for processing to avoid excess glut at the time of harvest. Processing and preserving serves as strategy for attracting better price for agricultural produce.

Table 4: relationship between farmers’ characteristics and media of seeking and finding agric. information

Variable	Marketing	Pesticides	Herbicides	Fertilizer	Improved seed variety	Improved agric. practices	Processing	Storage
Age	7.08 ¹ 4.06 ²	1.73 3.76	5.04 3.46	4.77 4.95	21.15* 36.02*	14.12* 15.15*	2.43 3.33	13.04* 13.08*
Educational Level	54.26* 48.69*	19.15* 14.77*	26.11*12.87*	43.26* 14.26*	19.31* 24.72*	17.83 22.04*	17.13*10.09*	22.08* 21.37*
Farm size	9.85 8.82	8.01 3.86	5.31 4.51	6.34 6.36	8.40 8.81	7.15 5.67	19.24* 19.63*	3.25 3.52
Frequency of Travelling	4.50 2.52	2.52 2.96	1.47 2.21	5.77 5.92	2.67 4.96	7.48 6.51	2.23 1.97	4.51 5.60

1. First entry in each column represent x^2 value for information seeking
 2. Second entry in each column represent x^2 value for information finding
- *Significant at .05 levels.

Conclusion and Policy Implications

This study reveals that farmers actually found agricultural information on agricultural practices in the media sources from which they sought them. While information on most of the agricultural practices, was sought and found on radio. Marketing and fertilizer information was sought and found in interpersonal media (fellow farmers and extension agents) respectively.

Though there are few extension agents or are ill funded by the authorities, their potential in increasing farmers knowledge and adoption of innovation is demonstrated in this findings, by their ability to provide more information on agricultural practices than any other media source. Finally it can be concluded that this findings has provided validity to earlier findings that radio, extension agents and fellow farmers are still the most frequently used sources for obtaining information on improved agricultural practices.

These findings suggest that more agricultural radio programs with local relevance should be broadcast on a regular basis as it would increase not only the knowledge base of farmers, but may as well lead to increased adoption and utilization. While farmers appear to differentiate media appropriate for specific practices, extension agencies should package marketing information for direct dissemination to farmers. This could be achieved through the usual forth nightly training program or village forums on specific days for the purpose of educating them on the prevailing marketing and pricing situation.

Farmers’ high non-seeking behavior of improved agricultural practices, post harvest handling and credit information calls for concerted effort by authorities to intensify campaigns to educate farmers of the scheme’s ability. While the ratio of extension to farmers is low and the agency ill funded, their repertoire of agricultural knowledge is greater than that of any other medium. It is thus imperative to revitalized extension system to increase farmers contact with extension agents through attendance of agricultural shows, demonstrations and other fairs. This in essence is to boost farmers’ knowledge of innovations and increase agricultural production ultimately. Finally extension dissemination attempts should be based on a combined media usage strategy, as media need to be content and audience specific.

References

Ala, O.E, (1988) Content Analysis of Agricultural News in Nigerian News Papers 1980-1985 (Unpublished Bachelor of Science Thesis University of Ibadan, Nigeria, 1988).

Amadi (2007) Impact of Adamawa ADP on Rural Development in Adamawa State. (Unpublished PhD Thesis Federal University of Technology Yola, Nigeria,

Clark, R.C and Akinbode, I.A (1986) Factors Associated with Adoption of three Farm Practices in western State, Nigeria. *Bulletin 1 Faculty of Agriculture, University of Ife.*

Igodan, C.O and Adekoye A. (1997) "Socio- Economic Determinants of Farmers' Use of Extension Information sources in Lagos State." *Nigerian Journal of Rural and Community Development 1 (4) 87 – 93*

Olowu, T.A and Igodan, C.O "Media Use Among Farmers in Six Villages in Kwara State" *Nigerian Journal of Rural and Community Development 1 (6) 98-102*

Patel, A.U and Ekpere, J.A (1987) "Characteristics and Radio Listening Behavior of Farmers and Impact on knowledge of Agricultural innovation" *Agricultural Administration 5 (2) 83 – 90*

Umar, A.M (2011) Impact of Fadama II on Adoption and Use of Advisory Services in Adamawa State, Nigeria (Unpublished PhD Thesis, University Malaysia Sarawak)

Voh, J.P (1991) "Information Sources and Awareness of Selected Recommended Practices; A study in a village in Kaduna State, Nigeria" *African Journal of Agricultural Sciences 8 (1&2) 71-87*

William, S.K.T (1969) "Sources of Information on Improved Farming Practices in some Selected Area of Western Nigeria" *Bulletin of Rural Economics and Sociology 4 (1) 30-51*