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## **Determinants of Effectiveness of Electronic Media in Agricultural Information Delivery in Yola North Local Government Area of Adamawa State, Nigeria.**

**Pur J. T. and. Gwary M. M**

Department of Agricultural Economics and Extension  
University of Maiduguri,  
Maiduguri, Nigeria.

### **Abstract**

*Rapid advancement in electronic and communication technologies has opened up new and more effective channels for agricultural information dissemination. This study was carried out to analyze the determinants of effectiveness of electronic media (radio and television) in the delivery of agricultural information to farmers in Yola North Local Government Area (LGA) of Adamawa state. Data were collected by means of a structured questionnaire administered to 106 farmers randomly selected from all the wards of the LGA. The data were analyzed using descriptive and inferential statistics. Results of the analysis showed that majority (82.27%) of the respondents owned radio with only 10 (9.09%) respondents having television. In terms of the demographic distribution of the farmers, most of them (58.5%) were male with a high proportion (39.6%) were between the age ranges of 31 – 40 years. The major problem limiting access to information through electronic media was lack of constant power supply (96.2%). Based on the results and the need for improving the effectiveness of the media, the study recommended that more competent presenters knowledgeable in the area of agriculture for both radio and television be engaged. There should be increased area of coverage as well as airtime for agricultural programmes by the electronic media in the state. General improvement in the level of infrastructure, particularly electricity supply and establishment of more television viewing centers and radio clubs should be encouraged.*

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*Keywords: Effectiveness, Information dissemination, Innovation and communication*

### **INTRODUCTION:**

In this era of globalization, information and communication technology (ICTs) has become an increasingly powerful tool for improving the delivery services and enhancing local development opportunities (Gorstein, 2003). As a broad tool for providing local farming communities with scientific knowledge, ICT heralds the formation of knowledge societies in the rural areas of the developing world (Shark et al, 2004). Rural communities require information on supply of inputs, new technologies, early warning system (drought, fresh, and diseases), credit, market price and their competition. Such information, knowledge, technology and services will contribute to expanding and energizing agriculture (Munyna, 2000). The diversity and large number of possible applications of new communication technologies are very promising. They form the emergence of global trade and

communication networks, a boom in on-line trade and the convergence of telephone, radio, television and internet (CTA, 2000). For farming communities in the developing world, including Nigeria, radio and television when used effectively has the potential to bring about rural transformation.

Radio and television have been more extensively used in most developing countries. Television clubs or groups in India, Sudan, Ivory Coast and Brazil have been successful in transferring and spreading of information to farmers (Wele, 1991). Radio rural forums, radio listening groups and clubs as an extension strategy have been tried in many countries including Nigeria (Dimelu and Anyawu, 2004). According to Baxter (1989), radio and television closely attuned to farmer's needs and conditions and timed to complement agricultural operations, they can be a strong adjunct to field extension service – but not a substitute for them. Given the continuing expansion of market oriented agriculture and the increasing complexity of input requirements, there is a need for a continuous education of farmers and extension staff, and radio and television would be a good way to disseminate information to them.

Radio is one of the fastest, most powerful channels and in many countries has been used in communicating farm information to farmers. Radio reaches people at all levels that understand the language of transmission. The use of radio as mass communication tool for agricultural development has long been recognized. Radio has been used as a tool for learning and community address system. (Bereh, 2002). In remote regions, without telephones, people use radio to announce meetings, funerals and weddings. People learn about their government programmes and plan on radio and hear about events and issues in their communities. They also use their local or community radio stations to voice their own views. Television adds a second dimension to radio broadcasting, thus increasing the range of methods available to extension workers. The agricultural extension agent can present a whole series of result demonstrations through pictures thus emphasizing differences over time. Bogunjoko (1983), while working on the use of television in the rural areas reported that agricultural programmes seek to disseminate information on dry season farming, livestock husbandry, water management and general farming problems. Television is particularly important in dissemination of new research of new research of findings since it combines the power of two senses, hearing and seeing. In the context of the study area (Yola North Local Government Area of Adamawa State) this study assesses the role and effectiveness of the electronic media in the dissemination of agricultural information to the farmers. The specific objectives of the research were to:

- 1) describe the socioeconomic characteristics of the farmers;
- 2) determine access and ownership of electronic media by the respondents;
- 3) assess the role of radio and television in the dissemination of information to the farmers and

- 4) analyze the effectiveness of electronic media in the dissemination of agricultural information among the respondents.

### **Methodology**

Yola North Local Government Area (LGA) is located in Adamawa State. It has a population of 246, 066 and estimated land area of 1,913km<sup>2</sup>. It is an agricultural area characterized by undulating plains, which are fertile. Many rivers and streams drain the area with river Benue being the major one rising from the highlands of Cameroon. It has clear wet and dry season. There are 11 wards in the study area namely, Limawa, Karewa, Jambutu, Luggere, Yerma, Giwadabawa, Ajiya, Alkalawa, Runde Donbeli and Nassarawo. Random sampling procedure was used to select 10 farmers from each of the 11 wards to make up a total of 110 farmers as sample size. Primary data were collected through sets of questionnaire administered to the respondents by trained enumerators. Secondary data sourced from journals, published documents and internet were also used for the research.

Frequency, percentage and rating of effectiveness (effectiveness index) were employed for analysis. Rating was done by means of comparative ranking of the media by the respondents on a scale of 1-3 with 1 = most effective and 3 least effective. Effectiveness is the extent to which the respondents have benefited from exposure in terms of agricultural information. An effective media in the context of the study is the one that relays more agricultural programmes. One hundred and six sets (106) of questionnaire were returned and used for the analysis.

## **RESULTS AND DISCUSSIONS**

### **Demographic Characteristics of the Farmers**

The demographic characteristics of the farmers are presented in Table 1. The variables considered were age, gender and farming system. The result of the analysis on age distribution of the farmers shows that majority (39.6%) of the respondents fall within the age range of 31 – 40 years. This indicates that most of the respondents were adults and fall within the economically active age group. Such group is most likely active in farming and tends to develop more interest in listening to programmes related to agricultural activities on the electronic media. The gender distribution of the respondents shows that majority were males (58.5%). The result implies that men were more active in farming in the study area as compared to women. This could be due to the fact majority of the people in Yola North LGA are Muslims where the religion restrict women only to house hold jobs. The practice of “purdah” (women seclusion) is a common practice in the study area. In terms of farming system of the respondents, the result in Table 1 indicates that most (41.5%) of the respondents were engaged in crop farming. This entails that more attention need to be paid to crop- based activities on radio and television programmes in the study area.

**Table 1: Demographic characteristics of the respondents (N = 106)**

<b>Demographic variable</b>	<b>Frequency</b>	<b>Percentage %</b>
<b>Age group (years)</b>		
Less than 20	6	5.7
21 – 30	26	24.5
31 – 40	42	39.6
Above 40	32	30.2
<b>Gender</b>		
Male	62	58.5
Female	44	41.5
<b>Farming system</b>		
Crop farming	44	41.5
Livestock	12	11.3
Poultry	20	18.9
Mixed farming	20	18.9
All of the above	10	9.4

Source: Field Survey, 2004

#### **Ownership and Access to Radio and Television by Respondents**

Data on ownership of electronic media (radio and television) are presented in Tables 2.

**Table 2: Ownership of Radio and Television by Respondents (N = 106)**

<b>Ownership</b>	<b>Frequency</b>	<b>Percentage</b>
Radio only	42	39.6
Television only	10	9.4
Radio and television	54	50.9
<b>Total</b>	<b>106</b>	<b>100</b>

Source: Field Survey 2004.

It is clear from the analysis in Table 2 that most (50.9%) of the farmers own both radio and television. This can be explained by the fact that Yola North Local Government being a metropolitan Local Government has high level of literacy and awareness to innovations.

**Table 3: Distribution of Respondents Based on Constant Supply of Electricity**

Constant Electricity Supply	Frequency	Percentage
Yes	4	3.8
No	102	96.2
Total	106	100

**Source: Field Survey 2004**

The analysis in Table 3 shows that majority (96.2%) of the farmers indicated that they do not have constant supply of electricity. This could affect their access to electronic media information, as most television sets and radio require electricity to operate. The erratic nature of electricity supply by the Power Holding Company of Nigeria (PHCN) can negatively affect the use of electronic media in the study area. The need for improvement of electricity supply in the study area cannot be overemphasized. This finding is in line with that of Osuji (1983) who found out in his study that the major problem associated with the use of electronic media in Nigeria is irregularity of power supply, which tampers with consistent flow of information.

**Respondent’s Perception of Effectiveness of Electronic Media in Agricultural Information Dissemination.**

**Table4: Respondents Perception of Effectiveness of Radio and Television in Agricultural Information Dissemination (N=106)**

Rank	Radio	Television	Radio & Television
Effectiveness	1(58%)	3(4%)	2(38%)

**Rank 1= Most Effective 2=Effective 3= Less Effective**

**Source: Field Survey 2005**

Information in Table 4 revealed that most of the respondents (58%) regarded radio as the most effective channel for dissemination of agricultural information (rank 1). This is followed by both radio and television complementing each other (rank 2) with television alone considered the least effective (rank 3). It is not surprising that radio is considered most effective by the farmers because radio is cheaper, more accessible and broadcasters include use of local languages. Moreover, radio can be easily carried along and listened to even while carrying out other tasks. This finding is also in line with Adebayo (1997) that says, to be effective, a mass communication media must be, 1) carrying relevant and timely messages, 2)

understandable to the audience 3) accessible to the target audience and 4) able to hold audience attention and interest.

### **Conclusion and Recommendations**

The use of electronic media in agricultural information dissemination is essential for the adoption of new innovations by farmers. This is in view of the fact that improved productivity by farmers can only be achieved through communication of the results of research findings to the largest number of people in the shortest possible time. Electronic media is a channel, which can be utilized for such purpose. To harness the potentials of the electronic media for agricultural development in the study area requires attention to the following recommendations:

- 1) Agricultural extension services particularly the Adamawa State Agricultural Development Programme and Ministry of Agriculture should incorporate or strengthen the use of television and radio in information dissemination to the farmers.
- 2) There is a need for more competent presenters who are knowledgeable in agricultural to be responsible for agricultural programmes on radio and television.
- 3) Rural television viewing centers should be established at different areas of the state to improve access to television programmes by the rural people.
- 4) Encourage formation of radio rural farmers or listening group among the farmers.
- 5) General improvement in rural infrastructure particularly electricity supply is essential in the study area.

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