
Use of Multi-Electronic Media for Farmer Education in Akwa Ibom State. A Case of Uyo Community

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Abstract

The purpose of this study was to determine the rate of usage of multi-electronic media by the extension agents and to investigate the reactions of the community farmers to the use of multi-electronic media among Uyo community farmers in Akwa Ibom State. The study was a survey conducted in Uyo local government area. The population of the study consisted of farmers in Uyo LGA and Agricultural Extension staff in Akwa Ibom Agricultural Development Project (AKADEP). Random sampling technique was used to draw 300 subjects for the study. Eighty-four (84) extension staff and 216 farmers participated in the study. Validated and reliable questionnaire tagged "Farmer Education and Multi-electronic Media (FEMEM) Questionnaire" was used as the research instrument. Simple Percentage and Mean statistics were used for data analysis. In the findings, radio carried the highest frequency of usage rate with 84%, followed by Mobile Phone with 66% and television with 40% usage rate. The least used electronic media was electronic conferencing with 0% for frequent usage and 2% for rare usage rate among other usage rates. The findings revealed 8 reactions from the community farmers. The Farmers viewed electronic media as an improved

way of obtaining agricultural information. Farmers very much understood electronic messages and the instructions are put to practice for increased productivity. Extension agents should make more efforts in utilizing Multi-electronic media in farmer education.

Farmer education enhances farmers to take advantage of research findings and technology advances and to quickly adjust to seasonal and economic conditions to increase their production and income (Devenish, 2003). Extension agents are the major pillars in educating farmers on improved farming techniques using different methods to get their messages across to their clients. State Agricultural Extension Organization which operates within the framework of Akwa Ibom Agricultural Development Project (AKADEP), teach farmers the latest discoveries and techniques developed by Agricultural specialists. Maunder (2000) stated that, agricultural extension services is an assistance given to the farmers through educational procedures, to improve farming methods and techniques, increase production, promote efficiency and income acceleration, bettering their levels of living and lifting the social and educational standards of rural life. Farmer education involves communicating ideas, information and new techniques to farmers, with the hope of influencing their decision for adoption of the techniques (Woerkum, 1999, and Anthonio 2005). Etim (1998) opined that farmer education is a form of educational procedure whereby farming methods are improved and techniques from universities and research institutions are taught to farmers for adoption with a view to increasing their production efficiency and income. It could therefore be said that Farmer Education requires circular communication from the researcher to extension staff and to the local farmers and subsequent feedback from the farmer's experiences with current farmer's problems.

Multi-electronic media are those channels of communication which expose large numbers of people to the same information at the same time (Oakley and Garforth, 2000). They include Media which convey information by sound and moving pictures for example radio, television, phone, telegraph, cassette, film show, computer and e-mail, e- conferencing, etc. The attraction of electronic media to extension services is the high speed and low cost with which information can be communicated to people over a wide area. Wigwe (2003) is of the opinion that, media must device appropriate methods for packaging messages that will induce the rural farmers to take part in development for their own benefit.

Therefore, how well has the extension agents utilized the multi-electronic media in the dissemination of agricultural information to the rural farmers in Akwa Ibom State? The problems that is encountered by extension officers in educating the rural farmers to improved their productivity lies partly on the ineffectiveness of communication, long distances, inadequacy of education(Food and agricultural

organization (F.A.O.) 1996). It therefore becomes more imperative to use multi-electronic media in the dissemination of extension information by the extension agents.

The Purposes of this Study

The purposes of this study were therefore to determine the rate of usage of multi-electronic media by the extension agents, assessed which of the multi electronic media is often utilized by the extension agents to benefit the community farmers and the reaction of the community farmers to the use of multi-electronic media. It is anticipated that based on the findings of this study, the efficiency of the use of multimedia would be enhanced. It would serve as a motivational source for rural farmers to appreciate use of multi-media techniques communication, to achieve significant progress in agricultural production.

Research Questions

The following research questions were formulated to guide the study;

1. What are the percentage rates of usage of multi-electronic media by the extension agents?
2. What are the reactions of community farmers to the use of multi-electronic media?

Conceptual Framework

Multi-Electronic Media in Farmer Education

Multi-Electronic Media are channels through which content stimuli are presented to the learners (farmers). Studies have shown that multi-media can direct attention, information, evoke a response, guide thinking and instruct (Heinch, 1992). Multi-electronic media can be seen as electronic communication channels that carry information between the extension agent and the farmer with an instructional intent of facilitating learning. Therefore multi-electronic media can store and distribute the experiences of the instruction for the farmers to learn, Solomon (1993). Effective communication network is another process whereby ideas and skills are transferred to farmers. The extension agent posses an idea, advice and information which he/she hopes will favour the farmers Okpongette (2005). Furthermore multi-electronic media are usually designed to create a general awareness and interest in new ideas among the people.

Eyo (2003) and Abiola, (2003) pointed out that: multi-electronic media method in extension education include the use of radio, television, film show, phone, telegraph, computer, CDs,cassettes, e-mail, film strips, etc. Adeniji (1991), observed that television can demonstrate and talk. Farmers are exposed to seeing directly the practices, techniques and operations. A wide group of farmers are reached at the same time. Abiola, (2003) stressed that electronic media help people to articulate and discuss problems confronting them and providing solutions.

News broadcast and programmes need to inform, educate and entertain the public and the farmers as well. Some of the entertainment programmes can include music, plays, sports, films and quiz that convey useful agricultural information. It should be noted Farmer Education involves non-formal and special education that seeks to bring to bear new ideas, methods and practices meant to improve agricultural productivity (Udo, 1996).

Methodology

The study was conducted in Uyo local government area of Akwa Ibom State. As at the time the study was conducted was made up of one hundred and five (105) villages with four (4) clans. The clans include: Etoi, Offot, Ikono and Oku. The estimated population of Uyo is about 304,000. Geographically, Uyo lies between latitude 05 32¹N and longitude 07 36¹E. The study adopted a survey research design. The population of the study consisted of farmers in Uyo LGA and extension staff of Akwa Ibom Agricultural Development Project (AKADEP). The population of the study is 2,982. Random sampling technique was used to draw 300 subjects for the study. Eighty-four (84) extension staff and 216 farmers participated in the study.. Validated questionnaire tagged “Farmer Education and Multi-electronic Media (FEMEM) Questionnaire” was used as the research instrument. The instrument was made up of two parts (Part A and Part B).Part A was constructed to gather demographic data of respondents. Part B was divided into two sections (section one and section two). Section one was focused on usage of multi-electronic media with a three point rating scale which indicated frequent usage, rare usage and non- usage rates. In this section, percentage rates of usage were determined. Section two was on the reactions of community farmers with a four point rating scale and the cut-off point was set at 1.5. Section two reflected the following levels of agreement; strongly agreed, agreed, disagreed and strongly disagreed and 1, 2, 3 and 4 points were attributed to the scales respectively. Test-retest method of reliability proof was adopted using Pearson’s Product Moment Correlation (PPMC) to determine the reliability Coefficient which was ($r=0.91$). The questionnaire was administered by the researchers. Mean and Percentage were used for data analysis.

Results

Research Question 1

1. What are the percentage rates of usage of multi-electronic media by the extension agents?

Table 1: Usage of Multi-electronic Media in Farmer Education by the Extension Agents

N =84				
S/N	Items of Multi - Electronic Media	Extension Agents' Response for Frequent usage (%)	Extension Agents' Response for Rare usage (%)	Extension Agents' Response for Non-usage (%)
1	How often do you give information through storage devices like cassettes?	(15) 18%	(15) 19%	54% 63%
2	How frequent do you utilized the film show in the dissemination of extension information	(15) 18%	(17) 20%	(52) 62%
3	How frequent do you utilize electronic conferencing in the dissemination of agricultural information	(0) 0%	(1) 2%	(83) 98%
4	How often do you send extension information through an email?	(19) 23%	(12) 15%	(53) 62%
5	How often do you make use of phone to disseminate extension information	(40) 48%	(15) 18%	(29) 35%
6	How frequent do you give extension information through radio to the farmers?	(43) 52%	(28) 32%	(24) 16%
7	How often do you disseminate new technology through telegraph	(8) 10%	(12) 15%	(64) 75%
8	How frequent do you utilize television services in the dissemination of agricultural information	(21) 26%	(11) 14%	(52) 60%

**The numbers in parenthesis () are the actual numbers represented in percentages below them.*

Table 1 show that radio carries the highest frequency of usage rate (84%) with 52% for frequent usage and 32% for rare usage, followed by mobile phone with 66% usage rate (48% frequent usage and 18% for rare usage). The least used electronic media was electronic conferencing with 0% for frequent usage and 2% for rare usage rate. Only 26% of the extension agents frequently use e- mail to disseminate agricultural information to farmers among other usage rates.

Research Question 2

1. What are the reactions of community farmers to the use of multi-electronic media?

Table 2: Summary of Mean Responses on Reactions of Uyo Community Farmers towards Use of Electronic Multi-electronic Media in Farmer Education

N= 216

S/N	Items	Mean Score	Remark
1	I see Multi electronic media as an improved way of obtaining agricultural extension information	3.67	Accepted
2	I appreciate the visit of extension agents as well as the electronic information.	3.65	Accepted
3	I put the message received through multi-electronic media into practices	3.72	Accepted
4	I achieved some increase in production from the putting the instructions to practice.	3.58	Accepted
5	I give feedback to the extension agents on what I achieved from electronic instruction.	3.31	Accepted
6	My behavior is improved because of messages received through electronic extension information	2.80	Accepted
7	I understand the language used in electronic communication of information.	2.94	Accepted
8.	I need more extension information from the multi electronic media	3.45	Accepted

Accepted= Accepted Reactions of Uyo Community Farmers Towards usage of Multi-Electronic Media based on the mean response obtained from four point rating scale, with Cut off point at 1.50

Table 2 indicates that items 1 to 8 have mean scores above 1.50 and accordingly are agreed upon as reactions of Uyo community farmers, on use of electronic media for in farmer education.

Discussion of Findings

In the findings, the percentage of usage of Multi-electronic Media indicated that radio carried the highest frequency of usage rate with 84%, followed by Mobile Phone with 66% and television with 40% usage rate. The least used electronic media was electronic conferencing with 0% for frequent usage and 2% for rare usage rate among other usage rates. The findings on reactions of the community farmers on the usage of Multi-electronic Media revealed that farmers are positively influenced by messages received through various channels of the multi-electronic media and appreciate its usage in farmer education. The Farmers view electronic media as an improved way of obtaining agricultural information. The electronic messages are very much understood by them and the instructions are put to practice for increased productivity.

The result supports the work of Abimbade (1997) which remarked that multi-electronic media as a broad range of resources can be used to facilitate effective and efficient communication in the innovation of farming techniques. Extension agents in Akwa Ibom State use electronic for educating the farmers even though some media are more frequently used than some others. Radio is seen to be the most frequently used, perhaps for the reason that most farmers can afford a radio. Mobile Phone is also observed to be frequently used, this may not be used for extensive instruction but for follow up exercises and possible feed back from the farmers for necessary adjustment.

Abiola (2003) in supporting this contention said, "Radio and television are powerful and sensitive media. With combination of the two, millions of people can be reached within seconds and this is why the advantages of both need to be maximized for the development of rural areas". There is need for an effective method of delivery of the instructions to farmers. Radio and television programmes are excellent media for extension instruction. They are used to improve farmers' knowledge and to supplement personal visits, radio programmes coverings productions such as cassava production techniques are prepared and broadcast by the local radio stations to reach the rural farmers as rapidly as possible. Tele-conferencing was found in this study to be the least used electronic media. It is understood that most farmers in Uyo farming communities are computer illiterates.

There is need to use multi-electronic media for the tasks to which they are best suited, which include;

1. Answering questions and advising on problems common to a large number of farmers.

2. Spreading awareness of new ideas and creating interest in farming innovations
3. Reinforcing and repeating information and advice using a variety of sources that are credible to the farmers.
4. Giving timely warnings about possible pests and diseases outbreaks and urgent advice on what action to take.
5. Demonstration of improved and new farming technologies and skills to farmers.
6. Giving timely warnings about possible pests and diseases outbreaks and urgent advice on what action to take.

By appropriately applying the multi-electronic media in the dissemination of information to the farmers by extension agents some changes in their farming practices is expected for good (Okereke, 2002). It is essential that innovations and technologies developed by research organizations for the improvement of farming be transferred to them through extension education.

The findings on farmers' reaction to electronic media also show that community farmers are influenced by messages received through various channels of the multi-electronic media. Farmers in Uyo community appreciate and see the use of multi-electronic media in farmer education as an improved way of obtaining agricultural information. The electronic message are very much understood, the instructions are put to practice and increased productivity is realized. Imogie (1995) noted that the use of multi-electronic media will stimulate farmers, arouse farmers' interest, focus the farmers' attention, and shift agricultural activities from the extension agents to the farmer, help in the development of skills and attitudes in the farmers.

Conclusion

Based on the findings of this study, it is concluded that farmers in Uyo Local Government Area are enlightened enough to make use of information from the different types of electronic media, though some media are more often used than some others as reflected by the results. The use of multi-electronic media in the dissemination of agricultural extension information facilitates better innovation, adoption and increased productivity by the farmers. It is therefore necessary for extension agents to make more efforts in utilizing them in farmer education in order to facilitate the physical extension education.

Recommendations

Based on the findings of the study the following recommendations were made;

1. The state government should train and re-train extension staff for capacity building on used of varied electronic media in farmer education.
2. More emphasis should be laid on use of film show, electronic conferences, telegraph and e-mails, as their usage were found to be very low in the study

3. Training on Computer literacy should be mounted for literate community farmers' leaders who would in turn update the other farmers on improved agricultural techniques.
4. It is recommended that extension agents make more efforts in utilizing varied Multi-electronic media in farmer education in order to overcome the physical barriers to effective extension education.

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