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EFFECTIVENESS OF RADIO IN THE DISSEMINATION OF AGRICULTURAL INFORMATION AMONG FARMERS IN EDU LOCAL GOVERNMENT AREA OF KWARA STATE, NIGERIA.

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ABSTRACT

The broad objective of the study is to determine the effectiveness of radio in the dissemination of agricultural information. Specific objectives are to examine the socio – economic characteristics of the farmers, their sources of agricultural information and effectiveness of radio in the dissemination of agricultural information as well as the related problems. The study was carried out in Edu local government area of Kwara state, Nigeria. A total of 150 farmers were randomly selected from different villages within the ten political wards of the local government. Interview schedule was used to collect relevant data from the respondents. The instrument for data collection was validated and subjected to reliability test .Descriptive and inferential statistics were used to analysed data collected. Results showed that majority of the farmers were males, mostly 50 years and below in age with little formal education. Though most of the farmers got agricultural information through radio but some had to depend on friends / relations and Extension Agents(EAs) for agricultural information. Despite the advantages of the use of radio on this issue, 47.9% of the farmers considered it ineffective and some of the problems identified include language barrier, clarity of messages and improper interpretation of scientific terms / units of measurement as contained in the messages to be disseminated .In view of all these, more than one – half of the respondents did not record significant improvement in their farming activities. Furthermore, Chi Square analysis showed that only gender and level of improvement in farming had positive and significant relationship with the effectiveness of radio in the dissemination of agricultural information to targeted farmers. It can be concluded that radio is a useful source of agricultural information but it needs improvement in the areas of service delivery with a view to overcoming language barrier, poor presentation of key points and improper interpretation of scientific terms / units of measurements. It is recommended that radio station agricultural presenters should be trained, specifically on modern ways of presenting agricultural information to the rural people who are mostly illiterates.

KEY WORDS: Radio, Agricultural Information, Technology, Effectiveness, Farmers and Media content

INTRODUCTION

Agricultural research is about knowledge generation and its use . Both scientific and local knowledge can contribute towards positive progress in addressing socio – economic and environmental problems. The main problem facing the developing world today is not only lack of technologies and scientific discoveries needed for economic growth and rural development but their conversion into production accomplishments and using them as an instrument of economic growth and social change. However, this will depend to a greater extent on the speed with which the technology is transferred from its source (agricultural research institutes, universities and so on) to the ultimate unit of its utilization so that the users clearly understand, accept and apply it in their day to day practices. This in turn demands a suitable and effective communication strategy (Crouch and Chamala, 2001). Experience in rural communications demonstrate that radio is a practical and creative medium for facilitating the education and empowerment of the poor , including women and youths(Balit, 1999). According to Williams,

(1998), radio communication is useful in agricultural messages to a large number of people at relatively low cost and at faster rates. It brings about widespread of awareness, enkindles and sustains interests of the farmers. To increase its effectiveness in technology adoption, it should be supplemented by other training methods. Nweke, (2001) noted that technology is easier to be adopted if it is divisible, does not involve major changes in the former ways of doing things and not expensive. Cobata and Nwagbo, (1999) reported that adoption cost is positively related to adoption. The mass media involves radio, Television, newspaper and others. According to Rogers and Shoemaker, (2001),the mass media are those means of transmitting messages that involve a mass medium such as Television, newspapers, magazine and the like, which enable the source of one or a few individual to reach an audience .In Northern Nigeria, Atala,(1998) and Bogunjoko (2003) confirmed in their studies that there is a positive and significant relationship between mass media and level of adoption of agricultural innovations. Radio is increasingly becoming a more powerful source for entertaining and informing rural people in developing countries. It is equally effective with literates and non – literates. Its ability to permeate political, physical and sociological barriers has made it the greatest ally in the popularization of ideas and concepts. According to Ogunbameru (2001), radio plays an important role in all the five stages of adoption process. It reinforces the determination of the listener (farmer) to go ahead to adopt the practices, package, technology or idea Thiendon ,(1999) also reported that radio is a uniquely effective means of disseminating information in terms of overcoming great distances , weak or unreliable press and low literacy levels. It is generally agreed that rural radio can be an effective means of communications in African countries. However, the growth of rural radio is stinted in terms of the poor knowledge that radio broadcasters have of their audience needs and preferences. They are constrained by lack of resources and techniques needed for audience research and impact measurement. This in turn makes it difficult to develop programme policies geared towards the needs and listening habits of the various audience groups. In fact, the only source of feedback for most rural radio stations is from listeners' letters and information gathered by mobile units. Moreover, radio has limited broadcasting time which may limit the amount of information to be disseminated. Active involvement of the audience in the teaching process is usually impossible as well as the direct and immediate feedback from the audience to the teacher. A look at the Nigeria media structure shows a disproportionate concentration on urban areas to the total or partial neglect of the rural population and the media content is usually determined by urban based, urban-oriented media practitioners who may be ignorant about or indifferent to the realities of the situation in the rural areas.

Objective

The main objective of the study is to examine the perceived effectiveness of radio in the dissemination of agricultural information among farmers in Edu Local Government Area of Kwara State, Nigeria.

The specific objectives are to;

1. Identify the socio – economic characteristics of the farmers in Edu Local Government Area of Kwara State,
2. Identify farmers sources of agricultural information,
3. Determine the effectiveness of radio in disseminating agricultural information in the local government,
4. Identify various problems associated with radio as a medium for disseminating agricultural information and
5. Ascertain the level of improvements recorded in their farming activities .

Hypotheses

1. There is no significant relationship between the socio –economic characteristics of the farmers (age, educational attainment and gender) and the effectiveness of radio in the dissemination of agricultural information.
2. There is no significant relationship between levels of improvements in farming activities and the effectiveness of radio in the dissemination of agricultural information.
3. There is no significant relationship between identified problems and effectiveness of radio in the dissemination of agricultural information.

METHODOLOGY

Edu local government was created in 1983 with its headquarters located at Lafiagi in the northern part of the state. The climatic condition of the area is a sub – balance of tropical region of the world. Edu

local government is predominantly inhabited by Nupes and a number of other tribes such as Yoruba, Fulani, Igbo and Hausa among others. Due to the favourable agro - climatic conditions, majority of

Table 1: Socio – economic characteristics of the respondents (n = 150)

Variable	Frequency	Percentage
Age distribution (Years)		
21 - 30	29	19.3
31 - 40	47	31.3
41 – 50	63	42.0
Above 50	11	7.3
Total	150	100.0
Educational attainment		
Quranic education	66	44.0
Primary education	50	33.3
Secondary education	28	18.7
Post secondary education	6	4.0
Total	150	100.0
Gender		
Male	126	84.0
Female	24	16.0
Total	150	100.0

Source; Field survey

Table 2: Sources of agricultural information, level of understanding of information, problems and effectiveness of radio in the dissemination of agricultural information. (n=140)

Variable	Yes	No	Total
Sources of agricultural information			
Radio	140 (93.3%)	10 (6.7%)	140(100.0%)
Extension Agents	121 (80.7%)	29 (19.3%)	140(100.0%)
Friends / relations	68 (45.3%)	82 (54.7%)	140(100.0%)
Problems of radio information			
Clarity of information	27(19.3%)	113(80.7%)	140(100.0%)
Language barrier	35(25%)	105(75%)	140(100.0%)
Interpretation of scientific terms and units of measurement	116(82.9%)	24(17.1%)	140(100.0%)
Level of understanding of agric. Information through radio		Frequency	Percentage
Very well		80	57.1
Well		52	37.1
Did not understand		8	5.8
Total		140	100.0
Effectiveness of radio in disseminating agricultural information.			
Very effective		50	35.7
Effective		18	12.9
Fairly effective		5	3.6
Ineffective		67	47.9
Total		140	100.0

Source: Field survey

Table 3: Level of improvement in farming activities. (n = 150)

Level of improvement	Frequency	percentages
High improvement	18	12.0
Low improvement	55	36.7
No improvement	77	51.3
Total	150	100.0

Source: Field survey

Table 4: Chi – Square results of tested hypotheses

Variables	Chi Square value (X^2)	df	P - value	Decision
1.Gender Vs. effectiveness of radio	8.44	3	P < 0.05	Sig.
2.Age Vs. effectiveness of radio	8.23	9	P > 0.05	Not Sig.
3.Educ.Vs. effectiveness of radio	6.36	9	P > 0.05	Not Sig.
4.Improvement in farming Vs effectiveness of radio	15.10	6	P < 0.05	Sig.
5.Level of understanding of messages Vs. effectiveness of radio	4.30	6	P > 0.05	Not Sig.
6.Language barrier . effectiveness of radio	3.57	3	P > 0.05	Not Sig.
7.Interpretation of scientific words / units of measurement . effectiveness of radio	3.16	3	P > 0.05	Not Sig.

5% significant level

people in the area are engaged in agriculture. The local government is divided into ten political wards .Varied numbers of farmers were randomly selected from different villages in each of the 10 wards,(Lafiagi I = 25, Lafiagi II= 21, Lafiagi III= 12,Lafiagi IV= 10, Tsaragi I = 21, Tsaragi II = 12, Tsaragi III = 11, Tsonga I = 19, Tsonga II = II and Tsonga III = 9) to give a sample size of 150 farmers as respondents for the study. A well structured and validated Interview Schedule was developed and subjected to reliability test using Test re-test method (r = 0.88) to obtain relevant data from the sampled respondents. Data collected were analysed using descriptive (frequency, percentage and means) and Inferential statistics (Chi – Square) to test the hypotheses of the study.

Measurement of variables
The demographic characteristics were measured at nominal level.
Levels of improvements in farming activities and the effectiveness of radio in the dissemination of agricultural information were measured at ordinal level on 3 and 4 point Likert scales respectively.

RESULTS AND DISCUSSION

Based on the objectives of this study, the results obtained from data analysis were classified and discussed as follows.

Socio – economic characteristics of the farmers.
This includes age, highest educational attainment and gender of the sampled respondents.
Findings in Table 1 showed that majority of the farmers were 50 years and below (92.7%), while very few of them were above 50 years of age. This reveals that the working and active age groups were more involved in agricultural productions in the local government and this may be due to the favourable agro – climatic conditions of the area and the need to ensure household food security and generate income. This suggests the needs to air radio agricultural programmes when most farmers are likely to be less busy in the fields.

The gender distribution of the respondents indicated that farming activities in the area was mostly dominated by males which constituted 84% of the farmers while females constituted only 16%. This may be attributed to either the stress associated with farming, gender division of labour or the access of women in the area to farm lands due to their cultural background as well as the prevailing norms and values. A communicator needs to know the cultural content in which he /she operates, the dominant beliefs, norms and values (Crouch and Chamala, 2001)

Though, more than one half of the farmers had formal education (56%),while the rest acquired Quranic education, only 33.3% and 4.0% attained secondary and post secondary education respectively. In view of their low educational level, it is pertinent to note that use of local dialects will go a long way in

educating the people better with respect to adoption of any proven farm technologies. The effect of education on adoption had been argued by several researchers. Voh, (2002) reported a positive and significant relationship between formal education and adoption. This result was confirmed by Atala,(1998) and Kidd,(2001) in their separate studies. These reports were contradicted by Williams, (1998)

Farmer's sources of agricultural information

According to findings presented in Table 2, 93.3% of the farmers got their agricultural information from radio, 80.7% received theirs from the state Extension Agents (EAs) and 45.3% were from friends / relations. The ranking of radio as number one source of agricultural information may be due to its affordability because of the low cost, timeliness of information, appropriate airing time and quality of agricultural information being disseminated. The mobility status of EAs, road networks, adequacy of funds and the ratio of EAs to farm families might account for the low ranking of EAs as farmers' source of agricultural information.

Furthermore, the results showed that farmer's level of understanding the messages being disseminated through radio varied considerably. For instance, out of the 140 respondents that relied mostly on radio, 5.8% of them indicated lack of understanding of the messages. This might be due to some problems as indicated by the farmers in Table 2. These problems include language barrier, probably in case of non - indigenes, clarity of information, and proper interpretation of scientific terms and units of measurements relating to the technologies.

Despite the advantages of the use of radio in the dissemination of agricultural information and its associated problems, less than one – half (47.9%), indicated that use of radio was not so effective in the dissemination of agricultural information. This might be due to some of the earlier identified barriers to an effective dissemination of agricultural information. However, 52.1% of the farmers who relied on radio for useful agricultural information did not hesitate to state that radio was an effective medium to get relevant agricultural information.

Level of improvement in farming activities

According to findings shown in Table 3, more than one –half of the farmers (51.3%), did not record any significant improvement in their farming activities despite the majority access to agricultural information, especially through radio, while only 12.0% and 36.7% of them recorded high and low improvement respectively. Apart from agricultural information, improvement in farming activities is a function of many factors such as timely availability of farm inputs, access to farm inputs, adoption of relevant technologies, access to credit facilities and supportive institutional and government policies among others. Unless all these are carefully addressed, the capacity of farmers to increase their production will be far from reality.

RESULTS OF TESTED HYPOTHESES

Chi Square results in Table 4 showed that only gender($X^2 = 8.44$, $P < 0.05$) and level of improvement recorded in farming activities ($X^2 = 25.10$, $P < 0.05$) had positive and significant relationship with the effectiveness of radio in the dissemination of agricultural information. This implies that the older the farmer, the more they utilize radio agricultural information and this may be due to their previous experiences. Also, the higher the effectiveness of radio in the dissemination of agricultural information to farmers, the greater the opportunity to improve upon their various farming activities. It suggests that farmers may be more aware of current proven technologies in agriculture with a view to increasing their production and income.

CONCLUSION

It can be concluded that radio is a useful source of agricultural information but it needs improvement in the areas of service delivery with a view to overcoming language barrier, poor presentation of key points and improper interpretation of scientific terms / units of measurements. It is recommended that radio station agricultural presenters should be trained, specifically on modern ways of presenting agricultural information to the rural people who are mostly illiterates. Research messages should be translated into the simplest language possible and translated to the prevalent languages. The radio programmes should be backed up by other forms of communication/media.

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