

**ASSESSMENT OF LEVEL OF PARTICIPATION OF  
FARMERS IN AGRICULTURAL RADIO PROGRAMMES  
IN KADUNA STATE, NIGERIA**

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**ABSTRACT**

The research work was conducted on assessment of level of participation of farmers in agricultural radio programmes in Kaduna State, Nigeria. A sample size of 150 farmers was randomly selected from six (6) communities of three (3) local government areas, representing the three (3) agricultural zones of the state. Data were collected using structured questionnaire. The collected data were analysed using both descriptive and inferential statistics. The findings show that 80.7% Of the respondents had secondary and tertiary education, 78% did not belong to any cooperative society, 62.7% had household size of 6-10 members, 96% could operate radio, 94% accepted availability of radio set for purchase, 85% afforded radio and 80% accounted for accessibility of radio set. The results show that 97% of the respondents perceived radio as a good source of information, 93% adjourned radio as the best medium for communication, and 85% listened to radio. Also, 63% of the respondents generally participated in radio programmes while 54% of them specifically participated in audience radio agricultural programmes. Result of test of hypothesis shows a significant relationship between farmers' level of participation in agricultural radio programmes and their agricultural productivity in the study area ( $M= 1.92, 1.66, 1.58, \text{Sig. } .000, .001, .009$ ). It was, therefore, recommended that; farmers should allot more time to agricultural radio programmes for improved agricultural production, and generally improve on the level of participation in agricultural radio programmes for effective and efficient agricultural productivity.

**Keywords:** Farmers, Agriculture, Radio Programmes, Level of Participation, Information Dissemination, Kaduna State, Nigeria.

## **INTRODUCTION**

Mass media channels are often the most rapid and efficient means to inform an audience of potential adopters about the existence of an innovation. Among the different modes of communication, radio has been acknowledged as a powerful communication tool that has proved to be the most effective medium in promoting and development in rural areas (Ango et al.,2013 and Anonguku et al., 2013). Food and Agriculture Organization (FAO) (2001) acknowledged radio as the most important communication medium for communicating with the rural populations of the developing countries. According to Nkrumah (2008), as cited by Ango et al. (2013), adequate and relevant information from any means of communication is one of the key requirements for increased productivity, income and therefore leads to poverty reduction among the food producers.

The use of radio by National Agricultural Extension and Research Liaison Services (NAERLS) was predicated by the acclamation that radio is one of the most potent tools in the arsenal of agricultural information dissemination. It has the ability to permeate political, physical and sociological barriers which has made it the greatest of all available media in popularization of ideas and concepts (Olajide and Amusat,2012). Radio farm broadcast in Nigeria is conveniently traceable to the early 1960s when various regional governments in Nigeria, through the communication units of the ministry of agriculture, introduced the farm broadcast. Subsequently, all national agricultural intervention programmes have made use of radio as potent tool of touching base with the targets and beneficiaries of development oriented programmes in agriculture, environment and health.

Various studies have equally reported radio as an effective channel of communication particularly in agricultural information for farmers' benefit (Ango et al., 2013). According to Anonguku et al. (2013), radio remains the basic medium for mass communication of information to rural farmers in developing countries. This has gone a long way to facilitate agricultural extension service delivery as it perfectly complements the work of agricultural extension agents. Operators of agricultural radio programmes have also observed that agricultural issues are very high in the priorities of their listeners and in many areas, radio stations have become highly valued for interacting with specific groups (especially farmers) and for handling complex social problems (Robert et al.,2003). Farmers attribute their affinity for radio programmes to the fact that agricultural radio programmes give them a voice and by encouraging the active participation of the audience in the making and scheduling of programmes which provide maximum benefit to them ( Ango et al., 2013). Agricultural radio programmes have been broadcasted over Supreme FM in Kaduna State in which many agricultural innovations and techniques are always aired for

farmers' benefits. Nevertheless, the participation of rural farmers in these programmes has not been assessed, hence the need for this study. The specific objectives of the study include to:

1. examine the socio-economic situation of farmers in the study area,
2. determine the level of farmers' access to radio as an information medium,
3. ascertain the perception of farmers about information dissemination through radio,
4. ascertain the level of participation of farmers in agricultural radio programmes in the study area.

A null hypothesis was put forward to guide the study "There is no significant relationship between farmers' level of participation in agricultural radio programmes and their productivity in the study area."

## **MATERIALS AND METHOD**

The study was carried out in Kaduna State, Nigeria. The state occupies the central portion of the Northern Nigeria and lies between Latitude 9° and 14° North of the Equator with a time of one hour ahead of the Greenwich Mean Time. It has a land area of about 45,567 square meters made up of undulating plateau and hills. The state has a total population of 6,066,562 people (Chibuzor, 2016). Administratively, Kaduna State constitutes 23 local government areas. Agriculture constitutes the largest occupation of the people with many participating in small scale farming. The state is the major region of animal husbandry, also producing major food and cash crops like beans, cassava, maize, rice, guinea corn millet, groundnut, ginger, cotton, sugarcane, and tobacco.

The population consists all the radio stations and their listeners in the state. The radio station used was Supreme FM, also known as Federal Radio Corporation of Nigeria (FRCN) with a sample size of 150 farmers. Purposive and random sampling techniques were used to select the 150 respondents for the study (table 1). Structured questionnaire was used to collect data. The generated data were analysed using both descriptive and inferential statistics.

**Table 1: population and sample size selection**

<b>AGRICULTURAL ZONES</b>	<b>L. G. A.</b>	<b>COMMUNITIES</b>	<b>SAMPLE FRAMES</b>	<b>PERCENTAGE (10%)</b>	<b>SAMPLE SIZE</b>
<b>1</b>	Zaria	Samaru Zaria	350	0.1	35
		Muchia	350	0.1	35
<b>2</b>	Chikun	Ungwan Sauri	250	0.1	25
		Babansauri	250	0.1	25
<b>3</b>	Kajuru	KasuwaMagani	150	0.1	15
		Marabakajuru	150	0.1	15
<b>Total</b>			1500		150

Source: field survey, 2016.

## **RESULTS AND DISCUSSION**

Results from table 2 revealed that, majority (56.7%) of the respondents are of age 21-40 years. This implies that, majority of the farmers are of middle age and can actively participate in agricultural radio programmes for effective and sustainable agricultural production. This finding is in agreement with the submission of Makarau et al. (2013) that, this age group is considered to be economically active population because farmers within this age range are less cautious of undertaking new risk, thus implore and adopt new method in order to enhance their willingness and eagerness to economic position.

The result shows that, majority (62.7%) of the respondents were males. This implies that males are more involved in farming than females in the study area. This agrees with the claims of Ojo and Jibowo (2008) in their study, that leadership roles visa-a-vis decisions are dominated by the male folk.

Results on level of education indicate that majority (80.7%) of the respondents had secondary and tertiary education. This implies that they can operate radio and understand the information provided via radio. This finding is in consonance with Okoye et al. (2004) that education is crucial in creating and seeking more useful sources of information on relevant improved technologies.

The results show that 62.7% of the respondents have household size from 6-10 members. This means that they have large household size mainly for agricultural operations. This result is in line with Orojobi and Damisa (2007) that household size is crucial to traditional agriculture where the main source of labour is the family, particularly in Nigeria.

The results also show that majority (78%) of the respondents were not members of any cooperative society. The implication is that they lack a good platform to fully participate in agricultural programmes. Radio therefore, becomes the best available forum for full participation in agricultural programmes and activities.

**Table 2: Socio-economic characteristics of the respondents**

Variable	Frequency	Percentage (%)	Mean	Minimum	Maximum
<b>Age (yr.)</b>					
1-20	13	8.7			
21-40	85	56.7			
41-60	47	31.3			
>60	5	3.3			
<b>Total</b>	150	100	37.67	15	67
<b>Sex</b>					
Male	94	62.7			
Female	50	33.3			
No response	6	4.0			
<b>Total</b>	150	100			
<b>Level of education</b>					
1-6					
7-12	32	21.3			
13-17	61	40.7			
>17	37	24.7			
No response	3	2.0			
<b>Total</b>	17	11.3	11.38	6	23
<b>Access to credit</b>					
Yes					
No	16	10.7			
No response	131	87.3			
<b>Total</b>	3	2.0			
<b>Household size</b>					
1-5	44	29.3			
6-10	94	62.7			
11-15	10	6.7			
>15	1	0.7			
No response	1	0.7	6.77	1	22
<b>Total</b>	150	100			
<b>Farm size(ha)</b>					
1-5	104	69.3			
6-10	18	12.0			
11-15	4	2.7			
16-20	4	2.7			
>20	9	6.0			
No response	11	7.3	10.52	1	500
<b>Total</b>	150	100			
<b>Annual income(#)</b>					
1000-200,000					
200,001-400,000	77	51.3			

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<b>&gt;400,000</b>					
<b>Total</b>	67	44.7			
	6	4.0	83098.89	1000	400,000
	150	100			
<b>Farming experience(yrs.)</b>					
<b>1-5</b>	46	30.7			
<b>6-10</b>	25	16.7			
<b>11-15</b>	15	10.0			
<b>16-20</b>	21	14.0			
<b>&gt;20</b>	34	22.7			
<b>No response</b>	9	6.0	14.88	1	50
<b>Total</b>	150	100			
<b>Membership of cooperative</b>					
<b>Yes</b>	30	20.0			
<b>No</b>	117	78.0			
<b>No response</b>	3	2.0			
<b>Total</b>	150	100			
<b>Extension contact</b>					
<b>Yes</b>					
<b>No</b>	21	14.0			
<b>No response</b>	124	82.7			
<b>Total</b>	5	3.3			
	150	100			
<b>Occupation</b>					
<b>Farming</b>	82	54.7			
<b>Trading</b>	43	28.7			
<b>Teaching</b>	14	9.3			
<b>Others</b>	4	2.7			
<b>No response</b>	7	4.7			
<b>Total</b>	150	100			

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Source: field survey, 2016

Table 3 results show that 94% of the respondents agreed to the availability of radio set for purchase,85% accounted for affordability and 96% agreed that they can operate radio. Generally, 80% of the respondents accepted accessibility of radio as an information medium. This implies that most of them access and use radio for their agricultural programmes. This finding agrees with Okwu et al. (2007) that radio set is cheap and widely owned in the rural areas.

**Table 3: Level of Farmers' Access to Radio as an Information Medium**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage(%)</b>
<b>Accessibility of radio set</b>		
<b>Yes</b>	120	
<b>No</b>	30	
<b>Total</b>	150	
<b>Affordability of radio set</b>		
<b>Yes</b>	128	
<b>No</b>	22	
<b>Total</b>	150	
<b>Respondents who can operate radio</b>		
<b>Yes</b>	144	
<b>No</b>	6	
<b>Total</b>	150	
<b>Availability of radio set for purchase</b>		
<b>Yes</b>	141	
<b>No</b>	9	
<b>Total</b>	150	
<b>Rating of information</b>		
<b>Very understandable</b>	42	
<b>Understandable</b>	98	
<b>Not understandable</b>	10	
<b>Total</b>	150	

Source: field survey, 2016.

Table 4 results reveal that 97.4% of the respondents agreed that radio is a good source of information, 92.7% see radio as the best medium of communication to farmers, and 85.3% listen to radio for agricultural programmes. These findings are in absolute consonance with Nakabugu (2001) and Nazari and Hasbullah (2010) who perceived radio as the most important and effective tool in promoting agriculture and development in rural areas.

**Table 4: Perception of Farmers about Information through Radio**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage(%)</b>
<b>Respondents who listen to radio</b>		
<b>Yes</b>	128	85.3
<b>No</b>	22	14.7
<b>Total</b>	150	100
<b>Radio as a good source of information</b>		
<b>Yes</b>	146	97.4
<b>No</b>	4	2.6
<b>Total</b>	150	100
<b>Allotment of time to agric. Programme</b>		
<b>No response</b>	3	2.0
<b>Yes</b>	66	44.0
<b>No</b>	81	54.0
<b>Total</b>	150	100
<b>Radio, best medium of reaching farmers</b>		
<b>No response</b>	2	1.30
<b>Yes</b>	139	92.7
<b>No</b>	9	6.0
<b>Total</b>	150	150
<b>Rating of advertisement of agric. Product on radio</b>		
<b>No response</b>	2	1.3
<b>Very good</b>	44	29.3
<b>GOOD</b>	96	64.0
<b>Poor</b>	7	4.7
<b>Very poor</b>	1	0.7
<b>Total</b>	150	100

Source: field survey, 2016.

Table 5 results show that 63.3% of the respondents participated in agricultural radio programmes and 54% of them did so in audience radio agricultural programmes. The result shows high level of participation in agricultural programmes by the respondents. This implies a significant change in their knowledge, attitudes and practices in agricultural activities. This submission is in line with Njoku (2016) that participation in radio agricultural programmes is very important for technology transfer.



**Table 5: Level of Participation of Farmers in Agricultural Radio Programmes**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage(%)</b>	<b>Mean</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Extent of respondents participation in radio programme</b>					
<b>High</b>	33	22.0			
<b>Moderate</b>	95	63.3			
<b>Low</b>	22	14.7	1.92	1	3
<b>Total</b>	150	100			
<b>Extent of farmers show up in broadcasting studio for live agric. Programmes</b>					
<b>High</b>	72	48.0			
<b>Moderate</b>	59	46.0			
<b>Low</b>	9	6.0	1.58	1	3
<b>Total</b>	150	100			
<b>Farmers' participation in audience radio agric. Programmes</b>					
<b>High</b>	81	54.0			
<b>Moderate</b>	37	24.7			
<b>Low</b>	31	20.7			
<b>No response</b>	1	0.7	1.66	1	3
<b>Total</b>	150	100			

Source: field survey, 2016.

Table 6 results reveal the findings on test of hypothesis that “ there is no significant relationship between farmers’ level of participation in agricultural radio programmes and their productivity in

the study area.” The result shows the Means for the variables as; extent of participation in agricultural radio programmes 1.92, extent of participation in audience agricultural radio programmes 1.66, and extent to show up in broadcasting studio 1.58 respectively. Also, P-values for the significance of the variables were ; .000, .001, and .009, implying that they are significant at all levels (0.01, 0.05 and 0.10), hence, the null hypothesis rejected and the alternate accepted, that, there is a significant relationship between farmers’ level of participation in agricultural radio programmes and their productivity.

**Table 6: TEST OF HYPOTHESIS- One sample T-test**

<b>Variables</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Std.error mean</b>	<b>T</b>	<b>Sig.(2-tailed)</b>	<b>Mean difference</b>
<b>Extent to farmers’ participation in agricultural radio programmes</b>	1.92	0.599	0.049	9.573	0.000	0.469
<b>Extent to farmers’ show up in broadcasting studio</b>	1.58	0.605	0.049	2.632	0.009	0.130
<b>Extent to farmers participation in audience agricultural programmes</b>	1.66	0.802	0.066	3’263	0.001	0.214

Source: field survey, 2016.

### **CONCLUSION AND RECOMMENDATIONS**

Farmers in the study area acknowledged radio as an important, effective and efficient medium for development oriented programmes and increased agricultural productivity. They used radio

and moderately participated in agricultural radio programmes for sustainable agricultural productivity. Based on the findings of the study, it is, therefore, recommended that:

1. Farmers should allot more time to agricultural radio programmes for improved agricultural production.
2. The farmers should generally improve on the level of participation in agricultural radio programmes for effective and efficient agricultural productivity.

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