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Perceived Effects of Agricultural Broadcasts on Radio Stations on Arable Crop Farmers in Ilorin East Local Government Area of Kwara State, Nigeria

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ABSTRACT

The study examined the Perceived Effects of agricultural broadcasts on radio stations on the Arable Crop Farmers in Ilorin East Local Government Area of Kwara State, Nigeria. One hundred and twenty farmers were randomly selected for the study. The statistical tools used for the study were frequency count, percentage, mean score and Pearson Product Moment Correlation (PPMC). The result showed that the mean age of the respondents was 56.3 years and the mean years of experience was 19.4 years. The average income of the respondents was ₦232,162.50. Agbelere on Radio Kwara 99.1 FM Radio ($\bar{x}$=2.61) was the most frequently listened agricultural broadcast on radio station. Agricultural programmes on radio are relevant to crop production was the highest ranked perception statement of the respondents ($\bar{x}$= 3.58). The radio programmes teaches new opportunity on agriculture ($\bar{x}$= 3.33). The irregular supply of electricity ($\bar{x}$= 2.21) was the highest ranked factor limiting the respondents from listening to agricultural broadcasts on radio stations. The study therefore recommends that extension service providers should disseminate agricultural information through the radio broadcasts.

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INTRODUCTION

Agriculture plays important roles in Nigerian economy as Over 70 percent of Nigerians are engaged in the agricultural sector (Food and Agricultural Organization [FAO], 2022). In Nigeria, agriculture is an important source of food for the populace and foreign exchange earnings for the country. Nigeria has about 70.8 million of arable land area with maize, cassava, guinea corn, yam, beans, soybeans, groundnut, millet and rice being the most cultivated crops (FAO, 2022). The arable crop farmers in Nigeria are limited by use of crude technology, dearth of extension service providers, inadequate irrigation facilities and land tenure problems (FAO, 2022 and International Institute of Tropical Agriculture [IITA], 2017).

According to Balan & Norman, (2012) radio is an effective tool of communication for the people in remote areas. Radio broadcast could reach several people at diverse locations at the same time (Nakabugu, 2001). Radio broadcast is the fastest means of sharing information repeatedly to rural people in developing countries like Nigeria. The broadcasting of agricultural innovation and farming techniques could enhance the productivity of the farmers (Nazarin and Harbullah, 2010). The strength of rural radio as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand (Chapman, 2003). Radio broadcasts has been reported to be useful to extension agents in communicating local problems and solutions (Behrens and Evans, 1984). According to Yahaya, Adamson and Kareem (2018) agricultural programmes on Radio stations have great potentials for the development of the Nigerian agricultural sector and the rural areas, and that many rural farmers requested for the allocation of more time to such programme.

The paucity of accurate and timely agricultural information has been identified as one of the limiting factors of agricultural productivity among the rural farmers (CTA,1996). This lacuna can only be filled through the use of radio as its readily available to the rural farmers and as the farmers lacks access to extension services. Considering the important role played by the radio broadcasts in promoting and dissemination of agricultural information. Although, several studies have been carried on Agricultural radio broadcast in Nigeria such as Agwu et al, (2008), Ango et al., (2013) and Ogunsola et al., (2019) but there seems to be dearth of information on the Perceived effects of agricultural broadcasts on radio stations on the arable crop farmers in the study area. Hence, there is a need to examine Perceived effects of agricultural broadcasts on radio stations on the arable crop farmers in Ilorin East Local Government Area of Kwara State, Nigeria. The specific objectives were to:

1. Ascertain the socio-economic characteristics of respondents.
2. Assess the farmers' frequency of listening to agricultural broadcasts on radio stations in the study area.

3. Examine the farmers' perception of agricultural broadcasts on radio stations in the study area.
4. Determine the farmers' perceived effect of agricultural broadcast on radio stations in the study area.
5. Identify the factors limiting the farmers from listening to agricultural broadcast on radio stations in the study area.

The Hypothesis of the Study; There is no significant relationship between the Perception of agricultural broadcasts on radio stations and the Farmers' perceived effect of agricultural broadcast on radio stations.

MATERIALS and METHODS

The study was carried out in Ilorin East Local Government Area (L.G.A) of Kwara State, Nigeria which is is one of the local government areas that constitute Ilorin Metropolis. Purposive sampling method was used to select 120 arable crop farmers from five farming communities in the Local Government Area. The arable crop farmers' frequency of listening to agricultural broadcasts on radio stations was measured on a three-point likert type scale where Always = 3, Occasionally = 2 and Never = 1. The fish farmers' perception of agricultural broadcasts on radio stations was measured on a five-point Likert type scale where Strongly Disagreed=1, Disagreed =2, Undecided=3, Agreed =4 and Strongly Disagreed =5. The farmers' perceived effect of agricultural broadcast on radio stations measured on a five-point Likert type scale where Strongly Disagreed=1, Disagreed =2, Undecided=3, Agreed =4 and Strongly Disagreed =5. The factors limiting the farmers' access to agricultural broadcast on radio stations was measured using three-point likert type scale where Not a factor =1, Less severe = 2, Highly severe = 3. The data was analysed with the use of frequency counts, percentage, mean score and Pearson Product Moment Correction (PPMC).

RESULTS AND DISCUSSION

Socio-Economic Characteristics of Respondents

The result in as presented in Table 1 revealed that about 78.3% of the respondents were male. This shows that arable crop farming activities is dominated by males in the study area. The result is in line with the findings of Ango, Illo, Yakubu, Yelwa and Aliyu. (2013) who in their study of the role of farm-radio agricultural programmes in disseminating agricultural technology to rural farmers for agricultural development found that most of the farmers were males. The average age was 56.3 years. This specifies that the farmers are energetic. This result is similar with the findings of Adewumi et al. (2019) who reported that 51 years was the mean age of arable-crop farmers in Kwara State, Nigeria. The result revealed that about 53.3% of the farmers were married. This implies that larger proportions of crop farmers in the study area

were married. The average household size was 7 persons. The average years of experience was 19.4years. This implies that crop farmers in the study area are not new in the business and so may be highly interested in listening to enlighten programme on radio that could broaden their knowledge of crop farming business. This confirmed the results of Ogunsola, Ogunsola, Alarape, Oloba, and Osalusi (2019) that most of the farmers that listens to radio agricultural broadcast have reasonable years of farming experience. The average income was 232,162.50 Naira. This implies that farming is a viable enterprise in the study area. The educational level of respondents indicated that 35.0% had tertiary educational level, 27.5% had secondary educational level, 21.7% had primary educational level and 15.8% had no formal education. This finding shows that majority of crop farmers in the study area has formal education. Attainment of formal education is expected to positively influence information seeking behaviours of the respondents towards listening to radio programmes so as to get updated information on farming practices. About 32.5% of the respondents listens to radio daily. About 48.3% of the respondents were involved in trading. On membership of association, majority (70.8%) of the farmers don't belong to any farming association. This result indicates that few farmers derives benefits from being members of farming association.

Table 1. Socio-economic Characteristics of the Respondents

Variables	**Frequency**	**Percentage**	**Mean Score**	**Standard Deviation**
Gender				
Male	94	78.3		
Female	26	21.7		
Age (years)			**56.3 Years**	**17.82**
≤ 20	2	1.7		
21 – 40	28	23.3		
41 – 60	35	29.2		
61 and above	55	45.8		
Marital status				
Single	17	14.2		
Divorced	8	6.7		
Widowed	31	25.8		
Married	64	53.3		
Household size (persons)			**7 Persons**	**3.78**
1 – 5	50	41.7		
6 – 10	51	42.5		
11 – 15	16	13.3		
16 and above	3	2.5		
Years of experience			**19.4 Years**	**12. 58**
1 – 10	38	31.7		
11 – 20	42	35.0		
21 – 30	15	12.5		
31 and above	25	20.8		
Annual income			**232,162.50 Naira**	**211,814.23**
≥ 200,000	5	4.2		

201,000 – 400,000	10	8.3
401,000 – 600,000	18	15.0
601,000 – 800,00	9	7.5
≥ 801,000	78	65.0
Sources of information		
Television	33	27.5
Social media	18	15.0
Neighbours	10	8.3
Extension agents	13	10.8
Radio	38	31.7
Newspaper	8	6.7
Educational level		
No formal education	19	15.8
Primary education	26	21.7
Secondary education	33	27.5
Tertiary education	42	35.0
Frequency of listening to agricultural broadcast on radio stations		
Never	27	22.5
Daily	39	32.5
Weekly	30	25.0
Monthly	17	14.2
Once in three months	7	5.8
Supportive occupation		
Trading	58	48.3
Artisan	27	22.5
Civil servant	35	29.2
Membership of association		
Yes	35	29.2
No	85	70.8

Sources: Field Survey 2022

Agricultural Broadcasts Listened to by Arable Crop Farmers

The Results in Table 2 showed the ranking order of agricultural programmes listened to by crop farmers. It was shown that Agbeloba programme broadcast by Radio Kwara 99.1 FM (mean=2.16) was ranked first, Agbeloba programme aired by Sobi 101.9 FM (mean=2.11) was ranked second, and La bawa programme broadcast by Royal 95.1 FM radio (mean=2.08) was ranked third. This finding implies that Agbeloba programme aired by Radio Kwara 99.1 FM, Agbeloba programme aired by Sobi 101.9 FM, and La bawa programme broadcast by Royal 95.1 FM radio were the foremost agricultural radio programmes listened to by crop farmers. This implies that the farmers listens' to agricultural broadcast through the various radio stations as radio broadcasts could be used to enhance their productivity through the provision of agricultural extension information which includes information on modern farming technologies and weather forecast.

Table 2: Frequency of Listening to Agricultural Broadcasts on Radio Stations

Agricultural Broadcast	Never	Occasionally	Always	Mean (SD)	Rank
Agbeloba (Radio Kwara 99.1FM Radio)	33(27.5)	35(29.2)	52(43.3)	2.16(0.83)	1st
*La bawa (*Royal 95.1 FM Radio*)*	27(22.5)	56(46.7)	37(30.8)	2.08(0.73)	3rd
Agbelere (Unilorin 89.3 FM Radio)	34(28.3)	63(52.5)	23(19.2)	1.91(0.69)	5th
*Oko Lemi Agbe (*Alubarka *89.9* FM Radio*)*	25(20.8)	66(55.0)	29(24.2)	2.03(0.67)	4th
Agbeloba (Sobi 101.9 FM Radio)	23(19.2)	61(50.8)	36(30.0)	2.11(0.70)	2nd
Agriculture today (Unilorin 89.3FM Radio)	52(43.3)	53(44.2)	15(12.5)	1.69(0.68)	6th

Sources: Field Survey 2022

Perception of Arable Crop Farmers Towards Agricultural Broadcast on Radio Stations

The result in Table 3 showed that perception statement that most of the agricultural programmes on radio are relevant to crop production was the highest ranked perception statement ($\bar{x}$= 3.58).

Table 3. Perception of Arable Crop Farmers towards Agricultural Broadcast on Radio Stations

Perception Statement	SD	D	U	A	SA	Mean (SD)	Rank
Agricultural programmes on radio stations are practicable	37(30.8)	16(13.3)	25(20.8)	23(19.2)	19(15.8)	2.76(1.467)	10th
Agricultural programmes on radio stations provides information on improved technology	10(8.3)	36(30.0)	26(21.7)	34(28.3)	14(11.7)	3.05(1.180)	6th
Agricultural broadcast helps to bring positive changes towards agricultural practices	2(1.7)	34(28.3)	31(25.8)	42(35.0)	11(9.2)	3.22(1.014)	4th
Agricultural broadcast should be aired everyday	17(14.2)	34(28.3)	27(22.5)	26(21.7)	16(13.3)	2.92(1.267)	8th
Agricultural broadcasts are not enough to meet the information needs of farmers	14(11.7)	34(28.3)	23(19.2)	32(26.7)	17(14.2)	3.03(1.263)	7th
The programmes are conducted during the odd hours	15(12.5)	29(24.2)	44(36.7)	17(14.2)	15(12.5)	2.90(1.177)	9th
Most of the Agricultural programmes on radio are relevant to crop production	11(9.2)	14(11.7)	19(15.8)	47(39.2)	29(24.2)	3.58(1.234)	1st
Agricultural programmes on radio are of benefit to every farmers	0	32(26.7)	34(28.3)	26(21.7)	28(23.3)	3.42(1.120)	3rd
There are no feedback opportunities on most of the agricultural programmes on radio	11(9.2)	27(22.5)	26(21.7)	39(32.5)	17(14.2)	3.20(1.206)	5th
Agricultural programmes on radio stations are educative	17(14.2)	13(10.8)	20(16.7)	33(27.5)	37(30.8)	3.50(1.396)	2nd

Sources: Field Survey 2022

Agricultural programmes on radio stations are educative ($\bar{x}$=3.50) was ranked second. Agricultural programmes on radio are of benefit to every farmer ($\bar{x}$=3.42) was ranked third. This result indicates that the farmers has a positive perception towards the agricultural broadcast on radio stations. This study agrees with Kumar et al. (2017) who reported that farmers who got information on improved technologies showed positive perception towards listening to radio agricultural programmes.

Perceived Effect of Agricultural Broadcast of Radio Stations on the Respondents

The result in table 4 showed that the perceived effect statement that the radio programmes teaches new opportunity on agriculture ($\bar{x}$= 3.33) was ranked first. The radio programmes compliment the work of agricultural extension agents ($\bar{x}$= 3.15) and agricultural broadcast aided the adoption of improved technology ($\bar{x}$= 2.93).

Table 4. Perceived Effect of Agricultural Broadcast of Radio Stations on the Respondents

Effects	SD	D	U	A	SA	Mean (SD)	Rank
Listening to radio programmes increases crop production	44(36.7)	39(32.5)	19(15.8)	7(5.8)	11(9.2)	2.18(1.25)	8th
Radio programmes has brought about attitudinal change to the farmers	13(10.8)	61(50.8)	27(22.5)	11(9.2)	8(6.7)	2.50(1.03)	7th
The programmes provides information on input suppliers	24(20.0)	29(24.2)	40(33.3)	22(18.3)	5(4.2)	2.63(1.12)	4th
Aids in the adoption of improved technology	12(10.0)	32(26.7)	36(30.0)	33(27.5)	7(5.8)	2.93(1.09)	3rd
The radio programmes link farmers to the marketing outlets	31(25.8)	12(10.0)	49(40.8)	28(23.3)	0	2.62(1.11)	5th
The radio programmes provides information on where to get land for farming	23(19.2)	33(27.5)	41(34.2)	16(13.3)	7(5.8)	2.59(1.12)	6th
Radio programmes on agricultural practices teaches new opportunity on agriculture	4(3.3)	25(20.8)	30(25.0)	49(40.8)	12(10.0)	3.33(1.02)	1st
Radio programmes compliment the work of agricultural extension agents	18(15.0)	22(18.3)	29(24.2)	26(21.7)	25(20.8)	3.15(1.35)	2nd

Sources: Field Survey 2022

This implies that agricultural broadcasts on radio stations provides useful information to the farmers. This further indicates that farmers agricultural extension information needs are made available through the agricultural broadcasts. The finding is in line

with Tafida and Sabiu (2021) who reported that majority of the crop farmers strongly agreed that radio programmes adequately address their needs.

Factors Affecting Crop Farmers' Access to Agricultural Broadcast on Radio Stations

The result in Table 5 revealed that irregular supply of electricity ($\bar{x}$= 2.21) highest ranked factor affecting the respondents' listening to agricultural broadcast on radio stations. Poor feedback ($\bar{x}$=2.05) was ranked second and bad reception of radio programmes ($\bar{x}$=2.04) was ranked third. This shows that irregular supply of electricity, illiteracy, and bad reception of radio programmes were the leading factors affecting crop farmers' access to agricultural broadcast on radio stations in the study area. The finding supported that of Ogunsola et al. (2019), who reported that erratic power supply, brief airing time and poor connectivity was the main factors affecting the remote farmers' access to agricultural broadcast on radio stations.

Table 5. Factors affecting crop farmers' access to agricultural broadcast on radio stations

Factors	Not a factor	Less severe	Highly severe	Mean (SD)	Rank
Bad reception of radio programmes	23(19.2)	69(57.5)	28(23.3)	2.04(0.65)	3rd
Irrelevant topics	26(21.7)	68(56.7)	26(21.7)	2.00(0.66)	5th
Irregular supply of electricity	19(15.8)	57(47.5)	44(36.7)	2.21(0.69)	1st
Too short time of airing agricultural programme	37(30.8)	55(45.8)	28(23.3)	1.93(0.74)	8th
Poor feedback	32(26.7)	50(41.7)	38(31.7)	2.05(0.77)	2nd
Language barriers	34(28.3)	49(40.8)	37(30.8)	2.03(0.77)	4th
Illiteracy	34(28.3)	59(49.2)	27(22.5)	1.94(0.71)	6th
High cost of getting radio set	40(33.3)	48(40.0)	32(26.7)	1.93(0.78)	7th
Unnecessary interruption during broadcast	58(48.3)	46(38.3)	16(13.3)	1.65(0.71)	9th

Sources: Field Survey 2022

Ho1: There is no significant relationship between the Perception of agricultural broadcasts on radio stations and the Farmers' perceived effect of agricultural broadcast on radio stations.

Table 6. Result of Pearson Product Moment Correlation between the Perception of agricultural broadcasts on radio stations and the Farmers' perceived effect of agricultural broadcast on radio stations

Variable	R Value	P Value	Remark
Perception of agricultural broadcasts on radio stations perceived effect of agricultural broadcast on radio stations	0.151	0.099	Not Significant

Sources: Field Survey 2022

The result in Table 6 revealed that there is no significant relationship between the respondents' Perception of agricultural broadcasts on radio stations and the Farmers' perceived effect of agricultural broadcast on radio station. This implies that the perception of agricultural broadcasts on radio stations does not have an influence on the Farmers' perceived effect of agricultural broadcast on radio stations

CONCLUSION

The study concluded that the arable-crop farming activities in Ilorin East LGA of Kwara State, Nigeria is dominated by males and majority of the respondents were educated and the average age of the respondents was 53.6 years. Agbeloba programme aired by Radio Kwara 99.1 FM, Agbeloba programme aired by Sobi 101.9 FM, and La bawa programme broadcast by Royal 95.1 FM radio were the foremost agricultural radio programmes that the farmers listen to in the study area. most of the agricultural programmes on radio are relevant to crop production. irregular supply of electricity was the most severe factor limiting the respondents' from listening to the agricultural broadcast on radio stations.

Recommendation

These recommendations were made based on the findings of the study;

1. Extension information targeted at improving arable crop farming in Kwara State should be disseminated through agricultural programmes mostly listened to by farmers which include Agbeloba programme aired by Radio Kwara 99.1 FM, Agbeloba programme aired by Sobi 101.9 FM, and La bawa programme broadcast by Royal 95.1 FM radio. In this way more farmers will be reached.
2. Government and concerned institution should help solve the problem of irregular supply of electricity in the study area.
3. Radio stations should provide enhance the feedback mechanism from the farmers.

Statement of Conflict of Interest

The authors have declared no conflict of interest.

Contribution Rate Statement Summary of Researchers

The authors contributed equally to the article.

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