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Fish Farmers' Perception of Agricultural Broadcasts on Radio Stations in Ilorin West Local Government Area of Kwara State, Nigeria

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ABSTRACT

This study examined the Fish farmers' perception of agricultural broadcast on radio stations in Ilorin West Local Government Area of Kwara State, Nigeria. About 120 fish farmers were selected for the study. Statistical tools such as frequency count, percentage and mean score were used to analyse the data. The result revealed that the average age of the respondents were 26.6 years and the average years of experience was 4.7 years. The average income of the respondents was N247,133.33. Agbelere on Unilorin 89.3FM ($\bar{x}$=1.98) was the most frequently listened to agricultural broadcast on radio stations. Agricultural programs on radio stations are educative was the highest ranked perception statement of the respondents ($\bar{x}$= 4.27). The radio programmes link fish farmers to the marketing outlets ($\bar{x}$= 4.16) was the highest ranked perceived effect of agricultural broadcast on radio stations. The discussion of irrelevant topics ($\bar{x}$= 2.07) was the highest ranked factor limiting the respondents from listening to the agricultural broadcast on radio stations. The study therefore recommends that the young, agile and unemployed Nigerians should be encouraged to venture into fish farming business.

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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). Agricultural sector provides food for human consumption, raw materials for industries and also serves as a source of foreign exchange earnings for Nigeria. Nigeria has about 70.8 million of arable land area with maize, cassava, guinea

corn, yam, beans, millet and rice being the most cultivated crops (FAO, 2022). The Nigerian Agricultural sector is characterized by inadequate access to extension service, low level of irrigation, low technology and productivity, land tenure problems, high production cost, limited financing, poor distribution of inputs and high labour intensity (FAO, 2022 and International Institute of Tropical Agriculture [IITA], 2017).

The communication of agricultural information, techniques and innovation through extension service deliveries could enhance the farmers' productivity, income and food security. Radio is a veritable tool for transmission of information and sharing of knowledge across diverse ethnic, cultural and social divide. Radio is considered one of the oldest information sharing technologies. Radio broadcast is the fastest means of sharing information to several people at diverse locations at the same time and repeatedly in developing countries like Nigeria. Radio broadcasts could reach several people who live in remote places. Radio broadcasts has been reported to be useful to extension agents in communicating local problems and solutions (Behrens and Evans, 1984). The dissemination of information along with new concepts and farming techniques can bring about new opportunities to 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).

Fish is a vital, cheap, and readily available source of protein for low income and developing countries of the world and it accounts for about 17 percent of the global animal-sourced protein (FAO, 2018; Ifabiyi, Banjoko, and Komolafe, 2017; Bene, et al., 2015). According to World Fish (2022) fish accounts for about 40 percent of the country's protein intake, with fish consumption at 13.3kg/person/per year. Fishery enterprise which includes fish farming is an important source of livelihood and food security for many people in Nigeria (Adisa, Ifabiyi and Opeyemi 2021; Ifabiyi, Banjoko and Komolafe, 2017). The fish by-products are primarily used in the formulation of animal feeds and also for pharmaceutical purposes. The demand for fish products are increasing because of their nutritional and health benefits over meat as its low in cholesterol but however, has high vitamins and minerals contents (Ifabiyi, 2019, FAO, 2012). Nigerians are the largest fish consumers in Africa with about 3.2 million metric tonnes of fish consumed yearly (FAO, 2022; Olaoye and Oloruntoba, 2011). The Nigerian fisheries and aquaculture are among the fastest growing agricultural sub-sectors in Africa (FAO,2022).

According to Samson, (2006) fisheries extension services in Nigeria had been reported to be ineffective and not properly organized. As the fish farmers have limited or no access to agricultural extension services due to the non-availability of extension agents, inaccessible roads to fishing sites, and poor rural infrastructures as most fishing ponds are located in the remote areas. Radio broadcast is one of the viable means of reaching several farmers and rural people at the same time at different locations. Considering

the important role played by these broadcasts in promoting and dissemination of agricultural information and the dearth of information on fish farmers' perception of agricultural broadcasts on radio stations. Hence, there is a need to examine the fish farmers' perception of agricultural broadcasts on radio stations in Ilorin West Local Government Area of Kwara State, Nigeria.

The specific objectives were to:

1. Identify the socio-economic characteristics of respondents.
2. Assess the fish farmers' frequency of listening to agricultural broadcasts on radio stations in the study area.
3. Examine the fish farmers' perception of agricultural broadcasts on radio stations in the study area.
4. Determine the fish farmers' perceived effect of agricultural broadcast on radio stations in the study area.
5. Identify the factors limiting the fish farmers from listening to the agricultural broadcasts on radio stations in the study area.

MATERIALS and METHODS

The study was carried out in the Ilorin West Local Government Area of Kwara State, Nigeria which is one of the sixteen (16) Local government Areas in the state and is one of the local government areas that constitute the Ilorin Metropolis. The total respondents for the study consist of 120 fish farmers purposively selected from four communities in Ilorin West Local Government Area of Kwara State based on their proximity to the rivers and availability of fishing ponds. The selected fishing communities were Egbejila water-side = 30, Odore = 30, Obate = 30 and Ajegunle =30. The fish farmers' frequency of listening to agricultural broadcasts on radio stations was measured on a 3-point Likert type scale where Never=1, Occasionally=2 and Always =3. The fish farmers' perception of agricultural broadcasts on radio stations was measured on a 5 -point Likert type scale where Strongly Disagreed=1, Disagreed =2, Undecided=3, Agreed =4, and Strongly Disagreed =5.

The fish farmers' perceived effect of agricultural broadcast on radio stations measured on a 5 -point Likert type scale where Strongly Disagreed=1, Disagreed =2, Undecided=3, Agreed =4 and Strongly Disagreed =5. The factors affecting the fish farmers' access to agricultural broadcast on radio stations was measured using 3-point Likert type scale where Not a factor =1, Less severe = 2, Highly severe = 3. Descriptive statistics such as frequency counts, percentage and means were used to analyse the finding of the study.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

The result in Table 1 revealed that majority (93.3%) of the respondents were male. This implies that fish production is dominated by males and could be due to the strenuous nature of fishing practices. The average age of the respondents was 26.6 years. This implies that the fish farmers are young, agile and are within the economically active age bracket. This result is in contrast with the findings of Ogunlade (2007) who reported that the average age of fish farmers in Osun State, Nigeria was 44.7 years. The result in Table 1 showed that about Majority (75%) of the respondents were still single. This implies that fish farming enterprise is an occupation that many young, agile and unemployed Nigerians could be involved in. The average household size is 3 persons. The average years of experience of the respondents was 4.7 years. This indicates that most of the respondents are relatively new in fish farming. This could be adduced to the fact that the respondents were still young. This result is contrary with the findings of Adefalu et al., (2013) who reported that the average years of experience of fish farmers in Ilorin Metropolis was 9.3 years. The average annual income from fish farming was N247,133.33. This implies that fish farming is a viable source of livelihoods. About 45% of the respondents got information from social media. This implies that apart from radio, social media is an important source of information for the fish farmers in the study area. the result in Table 1 further revealed that more than half (78.3%) of the respondents had tertiary education. About 44.2% of the respondents listens to agricultural broadcast on radio stations weekly. This indicates that the fish farmers listened to agricultural broadcasts on radio stations.

Frequency of listening to agricultural broadcasts on radio stations

The result in Table 2 showed that Agbelere on Unilorin 89.3FM ($\bar{x}$=1.98) was the most frequently listened programme by the respondents. La bawa on Royal 95.1 FM ($\bar{x}$=1.94) was ranked second. Ranked third was agbeloba on Radio Kwara 99.1 FM ($\bar{x}$= 1.91). This result indicates that Agbelere on Unilorin 89.3FM, La bawa on Royal 95.1 FM and agbeloba on Radio Kwara 99.1 FM are the most important agricultural broadcasts on radio stations that the fish farmers listens to in the study area. This result implies that the agricultural broadcasts on radio stations provides the fish farmers with the needed information on fish farming. This result is in agreement with the findings of Kughur et al. (2016) who reported that majority of farmers in Benue State listen to agricultural programmes on radio.

Table 1. Socio-economic characteristics of the respondents

Variables	Frequency	Percentage	Mean Score	Standard Deviation
Sex				
Male	112	93.3		
Female	8	6.7		
Age (years)			26.6 Years	6.96
≤ 20	20	16.7		
21 – 30	78	65.0		
31 – 40	18	15.0		
41 and above	4	3.3		
Marital status				
Single	90	75.0		
Divorced	4	3.3		
Widowed	4	3.3		
Married	22	18.3		
Household size (persons)			3 Persons	1.63
1 – 2	66	55.0		
3 – 4	27	22.5		
5 – 6	27	22.5		
Years of fishing experience			4.7 Years	2.42
1 – 3	43	35.8		
4 – 6	46	38.3		
7 – 10	31	25.8		
Annual income (Naira)			N247,133.33	217,858.91
100,000 – 150,000	47	39.2		
151,000 – 200,000	32	26.7		
201,000 – 250,000	20	16.7		
≥ 250,000	21	17.5		
Other Sources of Information				
Television	31	25.8		
Social media	57	47.5		
Neighbours	8	6.7		
Extension agents	4	3.3		
Educational level				
No formal education	4	3.3		
Primary education	4	3.3		
Secondary education	18	15.0		
Tertiary education	94	78.3		
Frequency of Listening to Agricultural Broadcast on Radio Stations				
Never	7	5.8		
Daily	8	6.7		
Weekly	53	44.2		
Monthly	44	36.7		
Once in three months	8	6.7		

Sources: Field Survey 2022

Table 2. Frequency of listening to agricultural broadcasts on radio stations

Agricultural Broadcasts	Never	Occasionally	Always	Mean (SD)	Rank
Agriculture today (Unilorin89.3FM Radio)	32(2.6.7)	68(56.7)	20(16.7)	1.90(.653)	4th
Oko Lemi Agbe (Alubarka 89.9 FM)	101(84.2)	11(9.2)	8(6.7)	1.22(.557)	6th
Agbelere (Unilorin 89.3FM)	19(15.8)	85(70.8)	16(13.3)	1.98(.542)	1st
Agbeloba (Radio Kwara 99.1FM)	35(29.2)	61(50.8)	24(20.0)	1.91(.698)	3rd
La bawa (Royal 95.1 FM Radio)	52(43.3)	23(19.2)	45(37.5)	1.94(.901)	2nd
Agbeloba (Sobi 101.9 FM)	60(50.0)	48(40.0)	12(10.0)	1.60(.666)	5th
Other radio stations	116(96.7)	4(3.3)	0	1.03(.180)	7th

Sources: Field Survey 2022

Perception of fish farmers towards agricultural broadcast on radio stations

The result in Table 3 showed that the perception statement that agricultural programs on radio stations are educative was the highest ranked perception statement ($\bar{x}$= 4.27). Agricultural programs on radio stations provide information on improved technology ($\bar{x}$=3.94) was ranked second. The programmes conducted during the odd hours ($\bar{x}$=3.85) were ranked third. This indicates that fish farmers have positive attitudes towards agricultural broadcasts on radio stations. This result is in agreement with the findings of Tafida and Sabiu (2021) who reported that the majority of farmers had a positive attitude towards the use of radio programmes because it adequately addresses their information needs.

Perceived effect of the agricultural broadcast of radio stations on the respondents

The result in table 4 showed that the perception effect statement that the radio programmes link fish farmers to the marketing outlets ($\bar{x}$= 4.16) was ranked first. The radio programmes provides information on where to get quality fingerlings and feeds ($\bar{x}$= 4.13) and Radio programmes has brought about attitudinal change to the fish farmers ($\bar{x}$= 3.95). This result indicates that agricultural broadcast on radio stations are effective as it provides useful information to the farmers. This result corroborates with the findings of Ango et al. (2013) who reported that agricultural programmes on radio is a viable means of bridging research findings-rural farmers gap in Zaria metropolitan area, Kaduna State, Nigeria.

Table 3. Perception of fish farmers towards agricultural broadcast in radio

Perception Statement	SD	D	U	A	SA	Mean (SD)	Rank
Agricultural programmes on radio stations are practicable	7(5.8)	12(10.0)	36(30.0)	53(44.2)	12(10.0)	3.43(1.00)	6th
Agricultural programmes on radio stations provides information on improved technology	0	7(5.8)	19(15.8)	68(56.7)	26(21.7)	3.94(.981)	2nd
Agricultural broadcast helps to bring positive changes towards agricultural practices	11(9.2)	8(6.7)	21(17.5)	56(46.7)	24(20.0)	3.62(1.154)	5th
Agricultural broadcast should be aired everyday	0	15(12.5)	68(56.7)	25(20.8)	12(10.0)	3.28(.812)	7th
Agricultural broadcast are not enough to meet the information needs of the fish farmers	0	59(49.2)	28(23.3)	7(5.8)	26(21.7)	3.00(1.195)	9th
The programmes are conducted during the odd hours	3(2.5)	4(3.3)	17(14.2)	80(66.7)	16(13.3)	3.85(.785)	3rd
Most of the Agricultural programmes on radio are not relevant to fish production	0	19(15.8)	20(16.7)	50(41.7)	31(25.8)	3.77(1.001)	4th
Agricultural programmes on radio are of benefit to small scale fish farmers	3(2.5)	28(23.3)	44(36.7)	27(22.5)	18(15.0)	3.24(1.053)	8th
There are no feedback opportunities on most of the agricultural programmes on radio	4(3.3)	51(42.5)	29(24.2)	16(13.3)	20(16.7)	2.98(1.170)	10th
Agricultural programmes on radio stations are educative	3(2.5)	0	12(10.0)	52(43.3)	53(44.2)	4.27(.837)	1st

Sources: Field Survey 2022. SD: Strongly Disagreed, D: Disagreed, U: Undecided, A: Agreed, SA: Strongly Disagreed

The result in Table 5 revealed that discussion of irrelevant topics ($\bar{x}$= 2.07) highest ranked factor affecting the respondents' listening to agricultural broadcast on radio stations. Ranked second was too short time of airing the agricultural programme ($\bar{x}$= 1.93) and irregular supply of electricity ($\bar{x}$= 1.90) was ranked third. This result indicates that discussion of irrelevant topics, too short time of airing the programme and irregular electricity supply were the main factors limiting the fish farmers access to agricultural broadcast on radio station in the study area.

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 fish production	7(5.8)	4(3.3)	24(20.0)	85(70.8)	0	3.56(.818)	High
Radio programmes had brought about attitudinal change to the fish farmers	0	8(6.7)	23(19.2)	56(46.7)	33(27.5)	3.95(.858)	3rd
The programmes provides information on input suppliers	0	4(3.3)	68(56.7)	45(37.5)	3(2.5)	3.39(.598)	7th
Aids in the adoption of improved technology	0	8(6.7)	60(50.0)	15(12.5)	37(30.8)	3.68(.989)	5th
The radio programmes link fish farmers to the marketing outlets	0	4(3.3)	17(14.2)	55(45.8)	44(36.7)	4.16(.789)	1st
The radio programmes provides information on where to get quality fingerlings and feeds	0	4(3.3)	16(13.3)	61(50.8)	39(32.5)	4.13(.762)	2nd
Radio programmes on agricultural practices teaches new opportunity on agriculture	4(3.3)	0	27(22.5)	65(54.2)	24(20.0)	3.87(.846)	4th
Radio programmes compliment the work of agricultural extension agents	0	0	68(56.7)	24(20.0)	28(23.3)	3.67(.833)	6th

Sources: Field Survey 2022. SD: Strongly Disagreed, D: Disagreed, U: Undecided, A: Agreed, SA: Strongly Disagreed Factors affecting fish farmers' listening to agricultural broadcast on radio stations

Table 5. Factors limiting fish farmers from listening to the agricultural broadcast on radio stations

Limiting factors	Not a factor	Less severe	Highly severe	Mean (SD)	Rank
Poor feedback	44(36.7)	56(46.7)	20(16.7)	1.80(.705)	4th
Language barriers	56(46.7)	64(53.3)	0	1.53(.501)	6th
Discussion of Irrelevant topics	20(16.7)	72(60.0)	28(23.3)	2.07(.632)	1st
Irregular supply of electricity	56(46.7)	20(16.7)	44(36.7)	1.90(.911)	3rd
Bad reception of radio programmes	44(36.7)	64(53.3)	12(10.0)	1.73(.632)	5th
Too short time of airing an agricultural programme	32(26.7)	64(53.3)	24(20.0)	1.93(.683)	2nd
High cost of getting radio set	84(70.0)	24(20.0)	12(10.0)	1.40(.666)	7th
Illiteracy	104(86.7)	12(10.0)	4(3.3)	1.17(.455)	8th
Unnecessary interruption during broadcast	108(90.0)	12(10.0)	0	1.10(.301)	9th

Sources: Field Survey 2022.

CONCLUSION

The study concluded that fish farming in Ilorin West LGA of Kwara State, Nigeria is dominated by young males with a tertiary level of education. Agbelere on Unilorin 89.3FM, La bawa on Royal 95.1 FM and agbeloba on Radio Kwara 99.1 FM are the most important agricultural broadcast on radio stations that the fish farmers listen to in the study area. Agricultural programs on radio stations are educative was the highest ranked perception statement. Radio programs links fish farmers to the marketing outlets. The discussion of irrelevant topics was the most severe factor limiting farmers from listening to agricultural broadcasts.

Recommendation

The following recommendations were made based on the findings of the study;

1. Young, agile and unemployed Nigerians should be encouraged to venture into fish farming business in the study area.
2. Agricultural extension information targeted at fish farmers in Kwara State should be disseminated through agricultural programmes mostly listened to by farmers which include Agbelere programme broadcast by Unilorin 89.3 FM, La bawa programme broadcast by Royal 95.1 FM radio, Agbeloba programme broadcast by Radio Kwara 99.1 FM. This effort will provide extension information to several fish farmers at different locations at the same time through educative programmes.
3. Moderators of agricultural programmes on radio should endeavor to address the issue of irrelevant topics, too short time of airing agricultural programme.

Statement of Conflict of Interest

Authors have declared no conflict of interest.

Contribution Rate Statement Summary of Researchers

The authors contributed equally to the article.

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