*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

# Effectiveness of broadcast Agricultural Programmes on Agricultural Development among Farmers in Akoko South West Local Government Area of Ondo state, Nigeria

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***Abstract*****—** *The study assessed the effectiveness of broadcast agricultural programmes on agricultural development in Akoko South-West Local Government Area of Ondo State, Nigeria. A multistage sampling technique was used in selecting 140 respondents for the study. Specifically, socio-economic characteristics, source of information and perception of broadcast agricultural programmes were examined. Data were collected using a well-structured questionnaire and were analyzed using both descriptive and inferential statistical tools. The results of the study revealed that majority (82.6%) of the farmers are married and more than half of them are male (57.0%). Television (91.9%), Radio (89.9%) and farmers association (82.6%) were revealed to be the major sources of information. The results also shows that farmers have a highly positive (62.9%) of the effect of broadcast agricultural programmes on agricultural development. The results of the hypothesis shows a significant relationship between age (p=0.034), education (p=0.015) and income (p=0.026) and the perception of farmers on broadcast agricultural programmes. The study concluded that broadcast agricultural programmes is effective in ensuring agricultural development in the study area and recommended that policies should be made to make broadcast stations more effective and more adoptive to agricultural programmes.*

***Keywords*****— Agricultural programmes, Broadcast, Nigeria, Radio, Rural farmers, Television.**

## I. INTRODUCTION

Agriculture provides the main source of foreign exchange for Nigeria and is an important sector of the economy with high potentials for employment generation, food security and poverty reduction. Oluigbo, (2012) in Obiora & Emordi, (2013) noted that up to the early 1970s, agriculture accounted for over 80 percent of Nigeria's Gross Domestic Product (GDP) but the discovery of crude oil in the late 1960s and the huge financial gains benefitted from it made the government to shift its priority from agriculture to crude oil and relied on food importation as a means of feeding her citizens. Consequently, this development affected agricultural production and extension services. Sadly, the price of crude oil in the world market started falling in 2015 and Yusuf (2016), explained that over $21bn was lost in capital investment in 2015 alone due to the sharp decline in oil receipts, and exploration investments was drying up, thereby affecting foreign reserves and straining fiscal budget. Following the reduction, Nigerians became apprehensive of the effects and there were calls for diversification. For instance, Moghalu (2016) noted that despite the efforts of successive governments in Nigeria, there have been high rates of poverty, unemployment and infrastructure deficits, and counseled that government must build a sustainable economic future by looking beyond oil. Agriculture has been described as the mainstay of economic growth in Africa. It is the single largest contributor to the wellbeing of the rural poor in Nigeria, sustaining 90% and 70% of the rural and total labour force respectively (Akpabio, 2005). Despite the pivotal role of agriculture in the nation's economy, it contributes only 38% of the GDP (Gross Domestic Product).

Rural broadcasting is a recent concept in Nigerian broadcasting history and it is a phenomenon that is prevalent in the developing or emerging world. The concept takes

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

cognisance of the larger percentage of the rural population when compared with the urban residents. Onabajo (2002) opined that development that does not include attitudinal change that will respect the dignity of labour and the propensity towards social change and a self-reliant economy is at best incomplete. Rural education is a subset of rural development and rural broadcasting can only but have one major focus which is that of transmitting developmental information to educate the rural citizenry with overall intention of developing their wellbeing, through introducing innovative ideas that will stimulate them to action. Rural development projects employing rural broadcasting should be made relevant to the needs of the societies. The nation's rural communities have been identified as not only the source of the country's food basket, but also the source of raw materials supply for the industrial sector (Amusat, 2012). Hence, different agricultural programmes aimed at improving agricultural production and rural development was embarked upon.The success of agricultural development programmes in developing countries largely depends on the nature and extent of use of mass media in mobilizing farmers for the need for development. Communication has been acknowledged for playing, a prominent role in the success of agricultural production and adoption of innovations. The planners in developing countries realized that the development of agriculture could be hastened with the effective use of mass media. Radio and Television have been acclaimed to be the most effective media for diffusing scientific knowledge to the masses. In the study area where literacy level is low, the choice of communication media is of vital importance.In this regard, the television and radio are significant, as they transfer modern agricultural technology to literate and illiterate farmers alike even in interior areas, within short time to enlighten farmers on the use of various technologies to boost agricultural development. The farmers can easily understand the operations, technology and instruction through the radio. Despite all these claims, little have been done to ascertain how effective these broadcast agricultural programmes have been in agricultural development especially in the study area and this study was aimed at revealing the perception of the farmers on how effective these programmes have been in addressing agricultural development.

## II. METHODOLOGY

The study was carried out in Akoko South-West local government area in Ondo State, Nigeria. Akoko South-West Local Government Area lies roughly between latitude 7º 20'N and 7º 30'N and longitude 5º 30'E and 5º50'E. It is located on a dissected plateau and is made up of many undulating hills and valleys. It covers an area of about 30 square kilometers. The local government has a mean annual rainfall of 1,270mm and mean annual temperature of 21.1oc, which results in a very humid condition. Because of the favorable climatic condition, there is abundant vegetation cover. With a population of about 22, 9486 according to 2006 population census, the study area is made up of more than 10 villages. About two third of the population is engaged in farming and most of the farmers are illiterate with very low income. Because of the rural nature of the local government, Akoko South-West is one of the three (3) various hills and plateau that cover the whole area and this has generally affected the productive focal local government areas that UNICEF chose to sponsor projects in. A multistage sampling procedure was used in selecting respondents for this study. The first stage involved the purposive selection of Akoko South west local government area due to its rurality and dominance of farmers in the area. The second stage involved the simple random selection of 50% of the total number of wards in Akoko Southwest local government. The third stage involved the random selection of two (2) villages each from each of the wards giving a total of twelve (14) villages used for the study. The fourth stage involved the simple random selection of ten (10) farmers from each of the villages giving a total of one hundred and forty (140) respondents used for the study. Data for this study was collected using a well-structured questionnaire. Descriptive statistical tool and inferential statistical was used for this study. Descriptive statistical tools such as frequency, percentages e.t.c was used. Descriptive statistics was used to reveal the socio economic characteristic while, PPMC (Pearson Product Moment Correlation) was used to analyzing the hypothesis.

## III. RESULTS AND DISCUSSION

The result on Table 1 shows the result of the socio economic characteristics of the respondents examined which includes age, sex, marital status, level of education, level of income per month, source of labour, household size, religion, years of farming and involvement in agricultural groups. It was revealed from the table that 29.8% of the respondents were within the age of (31-40) years, followed by those within (21-30) years with 23.5% of the respondents, and while those above 50 years are 23.1% of the respondents and 7.4% of the respondents were below 20 years of age. This is in line with Ofuoku*et al.* (2008) who also reported that most of the

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

respondents involved in farming activities belonged to middle age category which is the active age wherein productivity increased. Also, about 57.3% of the respondents are male and 42.9% were female which implies that male are more involved in farming more than their female counterpart and this may be due to the fact that the male is the head of the family and he needs to provide for the needs of his family. This result corroborate with Ndaghu*et al.* (2009), who found that most farm families in the rural areas are headed by males and are responsible for most production decisions. In addition, the results reveals that 82.6% of the respondents were married, 7.4% of the respondents were single, 5.3% of the respondents were widowed while 2.7% of the respondents were divorced. This is also in line with Ndaghu*et al.* (2009) who reported that most farmers in the rural areas were married. Furthermore, the result shows that 46.6% of the respondents were Christians, 34.9% of the respondents were Muslims while 15.4% of the respondents were traditionalists. This result revealed that there is no religious belief when it comes to sourcing for information in agriculture. Also, 42.9% of the respondents were within the range of (6-10) household size, 38.9% of the respondents range between (0-5) household size, 8.0% of the respondents range between (11-15) household size, 6.7%of the respondents range between (16-20) household while 3.4% of the respondents range between (above 20) household. This table further shows that the educational achievement of the respondents as followed: Secondary education (51.0%), tertiary education (15.4%), Primary education (12.0%), Adult education (11.4%) and No formal education (10.1%) was achieved by the respondents in the study area. This reveal that those with Secondary education and tertiary education are dominant in the study area. This implies that educational level of the respondents will mostly determine the level of information adoption compare to the illiterates. This result also reveals that 55.7% of the respondents make use of family labour while 44.3% of the respondents were hired labour for their farm work. It is clearly shows in this result that the farmers were been gotten from family labor because it is a cheaper means and the kind of relationship that exists in the family because it maybe monogamy or polygamy kind of family. This implies that majority of the respondent usually married more than one wife so that they can give birth to more children which will help them in farming activities. Moreover it also shows in table 4.1 that 59.0% belong to agricultural group while 40.9% does not belong to any group. This implies that majority of the respondents are involved in agricultural group such as cooperative societies which make it easy for them to source for information about their agricultural activities in the farm and access credit facilities. Lastly, it shows in the table above that 22.8% of the respondent have farming experience below 5 years, 45.0% were (5-10) while 32.1% were above 10years which implies that increase in yield mostly determine by the level of experience about that activities. In addition in finally revealed in the table that 50.3% of the respondents estimated 10,000 as their monthly income while 34.9%, 8.7%, and 6.0% estimated 20,000, 30000 and others respectively. This result implies that farming occupation is highly profitable based on the finding in the study area.

*TABLE 1: SOCIO ECONOMIC CHARACTERISTICS OF THE RESPONDENTSIN THE STUDY AREA*

| **Variables** | **Frequency** | **Percentage** |
|---|---|---|
| **AGE** | | |
| Below 20 | 11 | 7.4 |
| 21-30years | 35 | 23.5 |
| 31-40years | 40 | 29.8 |
| 41-50years | 23 | 15.4 |
| >50 | 30 | 23.1 |
| **SEX** | | |
| Male | 76 | 57.0 |
| Female | 64 | 42.9 |
| **MARITAL STATUS** | | |
| Single | 11 | 7.4 |
| Married | 123 | 82.6 |
| Divorce | 1 | 2.7 |
| Widow | 3 | 2.0 |
| Widower | 2 | 5.3 |

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

| | | | | |
|---|---|---|---|---|
| **RELIGION** | | | | |
| Christianity | 65 | | 46.6 | |
| Islamic | 52 | | 34.9 | |
| Traditional | 23 | | 18.4 | |
| **HOUSEHOLD SIZE** | | | | |
| 0-5 | 56 | | 38.9 | |
| 6-10 | 60 | | 42.9 | |
| 11-15 | 9 | | 8.0 | |
| 16-20 | 10 | | 6.7 | |
| > 20 | 5 | | 3.4 | |
| **LEVEL OF EDUCATION** | | | | |
| No formal education | 15 | | 10.1 | |
| Secondary education | 70 | | 51.0 | |
| Adult education | 17 | | 11.4 | |
| Primary education | | 15 | | 12.1 |
| Tertiary education | | 23 | | 16.4 |
| **SOURCE OF LABOUR** | | | | |
| Family labour | 77 | | 55.7 | |
| Hired labour | 63 | | 44.3 | |
| **ARE YOU A MEMBER OF ANY AGRICULTURAL GROUP?** | | | | |
| Yes | 82 | | 59.0 | |
| No | 58 | | 40.9 | |
| **YEARS OF FARMING EXPERIENCE** | | | | |
| Below 5 years | 34 | | 22.8 | |
| 5-10 years | 67 | | 45.0 | |
| > 10 years | 39 | | 32.1 | |
| **INCOME PER MONTH** | | | | |
| #10,000 | 75 | | 50.3 | |
| #20,000 | 43 | | 34.9 | |
| #30,000 | 13 | | 8.7 | |
| others | 9 | | 6.0 | |
| **Total** | **140** | | **100** | |

Results from table 2 shows the findings based on the sources of agricultural information among rural farmers in the study area, where the result reveal that 91.9% of the respondent are using Television and 89.9% of respondent are using Radio to source for information this is in line with (Ajayi, 2003) that the use of radio and television has been found to be a major source of information to farmers in South West of Nigeria. It was also shown that majority of the respondent did make use of Farmers association (82.6%) as source of information while (80.9%) of the respondent make use of the Neighborhood, Result also shows that 64.1% of the respondent got their information from internet and 62.4% are making use of newspaper as their source of information in the study area (Adekoya, 2000). Furthermore, the result reveal that most of the farmers (60.4%) make use of the extension agent and Agricultural research institute in sourcing for information, which show that the extension workers and research institute may be closed to the farmers in the study area, also 59.7% of respondent make use of market, likewise 47.3% of the respondent make use of posters in getting information in the study area.

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

*TABLE 2: Sources of information among rural farmers in the study area*

| Variable | Yes F (%) | No F (%) |
|---|---|---|
| Agricultural research institute | 90(60.4) | 50(39.5) |
| Neighborhood | 119(80.9) | 21(19.1) |
| Radio | 134(89.9) | 6(10.0) |
| Television | 137(91.9) | 3 (8.0) |
| Farmers association | 123(82.6) | 17(17.4) |
| Newspaper | 93(62.4) | 47(37.5) |
| Internet | 94(64.1) | 46(35.9) |
| Market | 83(59.7) | 57(40.3) |
| Poster | 69(47.3) | 71(52.7) |
| Extension agent | 84(60.4) | 56(39.6) |

The results on table 3 shows the agricultural information available among the rural farmers in the study area where the result reveal that 89.9 % of the respondent confirmed that information on pest and disease control measure were available to them through broadcast agricultural programmes and 89.3% of respondents said Information on the teaching on agronomic cultural practice on crop varieties, Information on how and when to plant were available to them through broadcast agricultural development programmes. It also revealed 86.6% of the respondent got Information on improved ways of processing and storing agricultural products available through broadcast agricultural development programmes while (82.6%) of the respondent said information on how and when to harvest Agricultural products were available to the through the same programme. Result also shows that 31.5% of the respondent did not get information on improved animal breeds through broadcast agricultural development programmes. 68.5% of the respondents got information on improved animal breeds available to them through broadcast agricultural development programmes.

*TABLE 3: Information available for the farmers in the study area.*

| VARIABLE | FREQUENCY | PERCENTAGE % |
|---|---|---|
| **Information on pest and disease control measure** | | |
| Available | 134 | 89.9 |
| Not available | 6 | 10.0 |
| **Information on improved crop varieties** | | |
| Available | 125 | 83.9 |
| Not available | 15 | 16.1 |
| **Information on the teaching on agronomic cultural practice on crop Varieties** | | |
| Available | 133 | 89.3 |
| Not available | 7 | 10.7 |
| **Information on Fertilizer applications** | | |
| Available | 123 | 82.6 |
| Not available | 17 | 17.4 |
| **Information on improved ways of processing and storing agricultural products** | | |
| Available | 129 | 86.6 |
| Not available | 11 | 13.4 |
| **Information on how and when to plant** | | |
| Available | 133 | 89.3 |
| Not available | 7 | 10.7 |

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

| | | |
|---|---|---|
| **Information on method of livestock rearing** | | |
| Available | 105 | 70.5 |
| Not available | 35 | 23.5 |
| **Information on improved animal breeds** | | |
| Available | 102 | 68.5 |
| Not available | 38 | 31.5 |
| **Information on improved agricultural processing and storage machines** | | |
| Available | 118 | 79.2 |
| Not available | 22 | 20.8 |
| **Is there information on how and when to harvest Agricultural products** | | |
| Available | 123 | 82.6 |
| Not available | 17 | 17.4 |
| **TOTAL** | **140** | **100** |

The results from table 4 shows the perception of the respondents towards knowledge acquired through broadcast agricultural development programmes in the study area. The respondents agreed that Constant listening to broadcast agricultural development programmes on radio and television contributes to their farm's productivity with mean value 4.56, also the mean value 4.12 shows that the Listening to broadcast agricultural programmes has helped in improving and knowing how and when to plant my seeds for maximum yield, likewise the mean value 4.08 agreed that Farmer's in the study area tends to aquire more knowledge in watching farm broadcast programme on television rather than radio, this is in line with (Dauda, 2009) that if the information pass through good medium to the farmers will yield a good result in their production. The result also shows that Broadcast agricultural development programmes teaches the farmer 's on how to select viable seeds for planting with mean value 3.96, and the mean 3.93 for Information on weed control has reduces the cost of labour. Listening to broadcast agricultural development programmes is time wasting with mean value of 3.77. Also the results reveals that broadcast agricultural development programmes equipped the farmer's on how to cultivate crops in the study area with mean value of 3.65.

*TABLE 4: PERCEPTION OF THE RESPONDENTS TOWARDS KNOWLEDGE ACQUIRED THROUGH BROADCAST AGRICULTURAL PROGRAMMES.*

| **VARIABLE** | **SA** | **A** | **U** | **D** | **SD** | **Mean** |
|---|---|---|---|---|---|---|
| | **F (%)** | **F (%)** | **F (%)** | **F (%)** | **F (%)** | |
| Constant listening to broadcast agricultural Development programmes on radio and television contributes to my farm's productivity | 45(33.2) | 72(51.3) | 5(10.1) | 8(5.4) | - | 4.56 |
| Broadcast agricultural programme provides relevant and current farm information. | 48(32.2) | 79(59.0) | 10(6.7) | 3(2.0) | - | 3.81 |
| Agricultural information content on the farm Broadcast programme are easy to utilize at the farm level. | 37(24.8) | 92(67.7) | 4(2.7) | 7(4.7) | - | 3.76 |
| No new farming techniques are learned from the broadcast agricultural development programmes. | 27(18.1) | 35(26.5) | 14(9.4) | 64(46.0) | - | 3.77 |
| Television farm broadcast programmes are useful only for the elite farmers. | 27(18.1) | 41(27.5) | 7(7.7) | 65(46.6) | - | 3.69 |

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Radio farm broadcast programmes cannot lead to easy adoption of new farming practices and techniques by non-literate farmers. | 22(18.8) | 27(20.1) | 22(14.8) | 69(46.3) | - | 3.94 | |
| A farmers' religion does not influence listening to broadcast agricultural development programmes. | 32(25.5) | 72(50.3) | 10(6.7) | 26(17.4) | - | 3.77 | |
| Farmers' social and economic attainment in the community determines which farm broadcastprogramme they listen to or watch. | 24(19.1) | 71(50.7) | 30(20.1) | 15(10.1) | - | 3.70 | |
| Advertisement and jingles played during farm broadcast programme interfere with the smooth running and understanding of the information content. | 37(24.8) | 72(54.3) | 17(11.4) | 14(9.4) | - | 3.81 | |
| A farmer is easily convinced to adopt a recommended innovation from listening to or viewing farm broadcast programmes. | 26(17.4) | 38(25.5) | 14(9.4) | 62(47.6) | - | 3.71 | |
| To obtain information from broadcast agriculturalprogrammes is expensive and time consuming. | 26(17.4) | 43(28.9 | 3(3.0) | 68(50.6) | - | 3.73 | |
| Information on improved crop varieties has been able to increase my farm productivity. | 27(18.1) | 92(66.7) | 16(11.7) | 5(3.4) | - | 3.46 | |
| Information on fertilizer has been able to help improve my crop yield. | 42(28.2) | 93(68.4) | 4(2.7) | 1(0.7) | - | 3.49 | |
| Listening to broadcast agricultural programmes has helped in improving and knowing how and when to plant my seeds for maximum yield. | 23(19.4) | 114(78.5) | 3(2.0) | - | - | 4.12 | |
| Broadcast agricultural development programmes equipped the farmer's on how to cultivate? | | 5(3.4) | 119(80.9) | 16(15.7) | - | - | 3.65 |
| Broadcast agricultural development programmes teaches the farmer 's on how to select viable seeds for planting. | | 34(22.8) | 94(66.1) | 5(6.4) | 7(4.7) | - | 3.96 |
| Listening to broadcast agricultural development programmes is time wasting. | | 11(7.4) | 43(28.9) | 19(13.8) | 67(50.0) | - | 3.77 |
| Information on weed control has reduces the cost of labour | 22(19.8) | 104(70.8) | 9(6.0) | 5(3.4) | - | 3.93 | |
| Farmer's tend to aquire more knowledge in watching farm broadcast programme on television rather than radio | 15(10.1) | 114(80.5) | 5(3.4) | 6(6.0) | | 4.08 | |

*https://dx.doi.org/10.22161/ijeab.45.16* *ISSN: 2456-1878*

| | | | | | | |
|---|---|---|---|---|---|---|
| Broadcast agricultural development programmes didn't bring about any development to the farmers productivity | 26(17.4) | 38(25.5) | 76(57.0 | - | - | 3.47 |

## IV. CONCLUSION

Based on the findings from the study, it was discovered that broadcast agricultural programmes is effective in ensuring agricultural development in the study area. This is evident in the dominant perception of the rural farmers who reported positive disposition towards the effectiveness of broadcast agricultural programmes on agricultural development coupled with their high level of exposure to agricultural broadcast programmes in the study area. Despite all these attributes, farmers in the study area still had challenges in accessing these broadcast agricultural programmes on a regular basis owing to various factors such as: Inadequate or irregular power supply, short airtime and frequency of airing, language barrier, poor signal reception. In addition, level of education and income all had an influence on the sources of agricultural information the rural farmers prefer to use. Also, age, level of education and income all contributes synonymously to the perception of farmers on knowledge acquired through broadcast agricultural programmes. There is also a high level of significance of the depth of exposure of farmers to their disposition towards agricultural broadcast programmes as a developmental tool in the study area. This further reiterate the importance of broadcast agricultural programmes in enhancing sustainable agricultural development as it facilitates farmers' access to information and new technologies.

## V. RECOMMENDATIONS

Based on the findings from the study, the following recommendations were made:

a. Research messages should be translated into the simplest language possible and translated to the prevalent language.
b. Radio stations and television channels should provide forum for questions and answers on aired program.
c. Radio stations/broadcasters should become independent of government in terms of management and programs and be more adoptive to their requirements.
d. Farmers should procure transistor radio sets, operated by battery to enable them listen to radio when there is power failure.

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