International Journal of Academic Management Science Research (IJAMSR)
ISSN: 2643-900X
Vol. 9 Issue 1 January - 2025, Pages: 97-103

Influence Of Radio On Agricultural Communication Among Farmers In Yewa South Local Government Area Of Ogun State

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Abstract: *This study examines the influence of radio on agricultural communication among farmers in Yewa South Local Government, Ogun State. The study made use of a survey research design. The population of this study are local farmers in Yewa South Local Government. A total number of 150 respondents were selected using cluster sampling. The instrument for data collection was a questionnaire designed by the researcher and data analysis was done using descriptive statistics. The result of the finding showed that majority of the respondents agree that radio plays a vital role in disseminating information on weather forecasts and climate updates to farmers. Also, farmers can access agricultural information in their local languages through community radio stations. Furthermore, some of the challenges identified in using radio for agricultural communication include low literacy levels among farmers, inadequate program funding and cultural beliefs and traditional farming methods which may hinder local farmers from new agricultural practices. The study recommends that more education programs on agricultural practices should be aired on radio in local languages in order to enhance literacy level of local farmers.*

Keywords: Agricultural Communication, Farming, Information, Radio broadcasting, Technology

Introduction

Agriculture is a vital component of Nigeria's economy, significantly contributing to employment, food security, and rural development. However, a key challenge in the sector is ensuring that farmers receive timely and relevant information. Effective agricultural communication is crucial for boosting productivity, promoting modern farming techniques, and encouraging sustainable practices. Radio has proven to be a highly effective medium for agricultural communication, particularly in rural areas where literacy rates are low and access to other forms of media is limited (Adebayo & Adedoyin, 2020). Radio serves as an educational platform for farmers, providing information on best farming practices, weather updates, market prices, pest management, and government policies. Compared to television and print media, radio is more affordable, portable, and accessible, even in remote areas with limited infrastructure (Mboho & Inyang, 2021). Community radio stations and agricultural programs broadcast in local languages further enhance farmers' comprehension and encourage the adoption of improved farming techniques. Various studies have demonstrated the effectiveness of radio in disseminating agricultural information. For example, Olaniyi (2019) found that radio programs significantly improved farmers' knowledge and adoption of advanced maize farming techniques in southwestern Nigeria. Likewise, Okunlola, Akinwalere, and Omotayo (2022) observed that interactive radio programs helped close the knowledge gap between agricultural extension officers and rural farmers in northern Nigeria.

Despite these advantages, challenges such as poor signal reception, limited farmer involvement in program development, and inadequate funding for agricultural radio programs remain (Egbule & Eze, 2018). Recognizing the critical role of radio in agricultural communication, this study seeks to explore its impact on Nigerian farmers. It will evaluate how radio facilitates knowledge dissemination, influences the adoption of new technologies, and enhances agricultural productivity. The findings will offer valuable insights for policymakers, agricultural extension services, and media professionals to improve the effectiveness of radio-based agricultural communication.

Statement of the Problem

Radio is widely acknowledged as one of the most effective mass communication tools for reaching rural farmers, thanks to its affordability, accessibility, and ability to broadcast in local languages (Mboho & Inyang, 2021). However, despite its extensive use in agricultural communication across Nigeria, its actual impact on farmers' knowledge, attitudes, and practices remains unclear. It is essential to determine whether farmers actively engage with agricultural radio programs, comprehend the messages conveyed, and apply the acquired knowledge to enhance their farming practices (Olaniyi, 2019). Several factors hinder the effectiveness of radio-based agricultural communication. These include weak radio signals in remote areas, a lack of interactive programs that enable farmers to ask questions and receive feedback, insufficient funding for agricultural radio initiatives, and limited collaboration

between agricultural extension officers and media organizations (Egbule & Eze, 2018). Additionally, some farmers may be reluctant to adopt new agricultural techniques due to cultural beliefs, skepticism towards radio messages, or financial constraints that make it difficult to implement recommended practices (Okunlola, Akinwalere, & Omotayo, 2022).

In light of these challenges, this study aims to examine the extent to which radio influences agricultural communication among Nigerian farmers. It will assess the effectiveness of radio in disseminating agricultural information, identify the obstacles limiting its impact, and explore strategies to enhance its role in agricultural extension services. Gaining a deeper understanding of these factors is crucial for developing more effective communication strategies that can boost agricultural productivity and improve farmers' livelihoods in Nigeria.

Aim and Objectives of the Study

The primary aim of this study is to examine the role and impact of radio as a medium of agricultural communication among farmers in Yewa South Local Government Area of Ogun State. The secondary objectives are as follows:

i. To identify the types of agricultural information disseminated through radio programs.
ii. To evaluate the effectiveness of radio in improving farmers' agricultural knowledge and practices.
iii. To analyze the challenges and limitations faced in using radio for agricultural communication.

Research Questions

i. What are the types of agricultural information disseminated through radio programs?
ii. What is the effectiveness of radio in improving farmers' agricultural knowledge and practices?
iii. What are the challenges and limitations faced in using radio for agricultural communication?

Communication

Communication is all interactions and data provided or received by individuals, groups, organisations, and nations via the use of established norms and symbols for mutual understanding (Kumari & Singh, 2023). Communication necessitates that all parties share a communicative common ground; otherwise, society will stagnate (Farooqi, Makhdum, & Yaseen, 2020). Communication is a goal-oriented process that aims to accomplish something (Olumba, Nwosu, Okpaleke & Okoli, 2022). Communication is vital in organisations as it is stressed by (Zelenkov and Lashkevich, 2023) that communication has a vital role in the accomplishment or failure of any organisation. It is used to resolve the contradictions in work organization so that such organisation may progress (Bahrini and Qaffas, 2019).

Radio Communication in Agriculture

In contemporary agriculture, mass media plays a crucial role in transferring innovations to farmers (Bamka, 2000). Through various mass media channels such as radio, television, billboards, and magazines, individuals and communities are continuously exposed to messages that not only promote products but also enhance agricultural production and highlight key issues. Mass media is particularly effective in agricultural information dissemination, as it reaches a broad audience quickly (Ariyo et al., 2013). It serves as a vital source of agricultural knowledge, keeping farmers informed about new developments, emergencies, and best practices. Additionally, it plays a significant role in sparking farmers' interest in innovative ideas and modern farming techniques (Oba et al., 2020). According to Adekoya et al. (2012), radio stations use their programs to educate, inform, and raise awareness on issues affecting local communities, including health, education, water access, and human rights. In doing so, radio becomes a valuable tool for local development. Radio broadcasts cater to a large and diverse audience, ensuring that the content remains relevant and beneficial to listeners. Furthermore, the radio is instrumental in equipping rural farmers with essential information to make informed decisions regarding their agricultural activities, particularly in developing countries. Information is key to the success of agricultural operations and management, and radio remains a reliable medium for disseminating agricultural knowledge effectively (Ariyo et al., 2013).

The types of Agricultural Information Disseminated through Radio Programs

The types of agricultural information shared through radio broadcasts include:

i. Weather Updates and Forecasts – Information on rainfall patterns, temperature variations, and climate predictions to help farmers plan their planting and harvesting schedules.
ii. Pest and Disease Control – Advice on identifying, preventing, and managing common crop and livestock diseases, as well as integrated pest management strategies.

iii. Government Policies and Programs – Information on agricultural subsidies, grants, loans, and other government initiatives that support farmers.
iv. Use of Agricultural Inputs – Education on the proper application of fertilizers, pesticides, improved seeds, and organic farming methods to enhance yields.
v. Livestock Management – Tips on animal breeding, feeding, health management, and disease prevention for livestock farmers.

Challenges and Limitations of Using Radio for Agricultural Communication

The use of radio for agricultural communication still has its own challenges. Some of these challenges include:

i. Language and Dialect Barriers: Agricultural programs may not be broadcast in local languages, making it difficult for some farmers to understand the information.
ii. Inadequate Program Funding: Many agricultural radio programs suffer from financial constraints, leading to poor content quality, irregular broadcasts, and limited reach.
iii. Cultural and Behavioral Barriers: Some farmers may be resistant to adopting new agricultural practices due to cultural beliefs and traditional farming methods.
iv. Low Farmer Participation in Content Creation: Many programs are developed without direct input from farmers, making the content less relevant to their specific needs and challenges.

The Agenda Setting Theory

The Agenda-Setting Theory was formally introduced by Dr. Maxwell McCombs and Dr. Donald Lewis Shaw in their study on the 1968 presidential election, known as "the Chapel Hill study." This theory asserts that the media have the power to influence public perception by determining which issues are important and relevant, effectively setting the “agenda.” They accomplish this by selecting which stories to highlight as newsworthy and by controlling the prominence and space given to these topics (Folarin, 1998). Agenda-Setting Theory emphasizes the influential role of the media in shaping public discourse and demonstrates the connection between media coverage, public perception, and policy decisions. It describes the media’s ability to affect the salience of topics on the public agenda—meaning that if a news item is frequently and prominently covered, the audience is more likely to consider it significant. Some scholars argue that when individuals are sufficiently exposed to persuasive messages, mass media can effectively influence behavioral changes (Bahrini & Qaffas, 2019).

Empirical Reviews

Haruna and Ibrahim (2024) conducted a study on farmers' exposure to agricultural radio programs and their adoption of farming innovations in Kaduna and Kano States. The primary aim was to evaluate the extent to which farmers adopt agricultural information and innovations broadcast on selected AM and FM radio stations in these regions. The study utilized a quantitative survey approach, employing questionnaires to gather data on farmers' attitudes toward agricultural radio programs and their impact on farming practices. The findings reveal that respondents acknowledge the role of agricultural radio programs in facilitating the adoption of new farming techniques and innovations, with a mean value of 4.02, as they actively listen to these broadcasts. Additionally, respondents reported gaining substantial information about new agricultural developments through radio, with a mean value of 3.97. This is further supported by the frequency of listening to agricultural radio programs, which recorded a mean value of 3.90. As a result, the study concludes that radio serves as an effective supplementary medium for disseminating agricultural knowledge, particularly given the shortage of extension workers and the growing ratio of farmers to extension agents in Nigeria.

Yakubu et al. (2019) examined farmers' perceptions of the effectiveness of radio and television agricultural programs in Jibia Local Government Area of Katsina State. Data were gathered from a randomly selected sample of 115 respondents using a structured questionnaire. Descriptive statistics were used to analyze the data, while Chi-square analysis was applied to determine the relationship between farmers' use of radio and television and their perceived effectiveness in disseminating agricultural information. The study found that the majority (92%) of the respondents were male, aged between 35 and 54 years, with 42.3% having a family size of 5 to 9 individuals. Additionally, only 42% had formal education, and their average farming experience was 25 years. Most respondents acknowledged acquiring new agricultural knowledge through radio and television programs. Based on these findings, the study concluded that radio and television are effective tools for delivering agricultural information to farmers. It recommended that both public and non-governmental organizations (NGOs) support and sponsor agricultural programs that align with the needs and interests of farmers.

Mtega (2018) explored the use of radio and television as sources of agricultural knowledge among farmers in Tanzania. The study aimed to identify the primary sources of agricultural knowledge used by farmers, assess the potential of radio and television in

disseminating agricultural information, evaluate their accessibility and usage, examine factors affecting their accessibility, and propose strategies to enhance their reach. A total of 314 farmers were randomly selected from nine villages in the Morogoro Region to participate in the study. The findings revealed that radio and television were among the seven key sources of agricultural knowledge for farmers. Radio was more widely accessible and owned by more farmers compared to television. Additionally, most farmers who relied on these media for agricultural knowledge preferred to listen to radio programs and watch television broadcasts in the evening or at night. Several factors influenced the use of radio and television for agricultural learning, including access to radio and TV sets, gender-based labor divisions, language barriers, the number of agricultural programs aired, and awareness of program schedules. To enhance farmers' access to agricultural knowledge, the study recommended that radio and television stations tailor their content to meet farmers' specific needs and ensure the timely dissemination of relevant agricultural information.

Research Methodology

The research adopted the descriptive survey design. The reason why descriptive survey research design was used is because data was collected using a structured questionnaire which does not involve any manipulation of variables in the study. The population of this study are local farmers in Yewa South Local Government, Ogun State. The study used a cluster sampling technique to select the respondents used for the study. The population was divided into smaller clusters based on demographic characteristics such as gender, age, education, years of experience etc. A total number of 150 respondents were selected for this study. A structured questionnaire was used for data collection. Data was analysed using descriptive statistics. The descriptive statistics used were frequency tables and percentages.

Data Analysis

For the data analysis, a total number of 150 respondents that are local farmers were used in this study. Frequency tables and percentages were used in analysing the responses from the questionnaire administered to them.

RQ1: What are the types of agricultural information disseminated through radio programs?

Table 1: The types of agricultural information disseminated through radio programs (N = 150)

Statement	SA	A	U	D	SD
Radio plays a crucial role in disseminating agricultural information such as weather forecasts and climate updates to farmers	44 (29.3%)	91 (60.7%)	12 (8.0%)	3 (2.0%)	-
Information such as improved seeds, fertilizers, and pesticides can be disseminated using radio to farmers	56 (37.3%)	12 (8.0%)	68 (45.3%)	-	14 (9.3%)
Information such as Government subsidies, grants, and support schemes can be disseminated using radio to farmers	21 (14.0%)	65 (43.3%)	29 (19.3%)	35 (23.3%)	-
Information such as Identification and management of common pests and diseases can be disseminated using radio to farmers	62 (41.3%)	22 (14.7%)	35 (23.3%)	31 (20.7%)	-
Strategies to adapt to climate change effects on farming can be disseminated to farmers using radio	47 (31.3%)	64 (42.7%)	36 (24.0%)	3 (2.0%)	-

Table 1 showed the types of agricultural information disseminated through radio programs. It showed that 91 (60.7%) of the respondents agree that radio plays a crucial role in disseminating agricultural information such as weather forecasts and climate updates to farmers, 44 (29.3%) strongly agree, 12 (8.0%) were undecided while 3 (2.0%) of the respondents disagree with the statement. Also, 56 (37.3%) of the respondents strongly agree that information such as improved seeds, fertilizers, and pesticides can be disseminated using radio to farmers, 12 (8.0%) of the respondents agree, 68 (45.3%) were undecided while 14 (9.3%) strongly disagree on the statement.

In addition, 65 (43.3%) of the respondents agree that information such as government subsidies, grants, and support schemes can be disseminated using radio to farmers, 21 (14.0%) of the respondents strongly agree to the statement, 29 (19.3%) were undecided while 35 (23.3%) of the respondents disagree on the statement. Likewise, 62 (41.3%) of the respondents strongly agree that information such as Identification and management of common pests and diseases can be disseminated using radio to farmers, 22 (14.7%) agree, 35 (23.3%) were undecided while 31 (20.7%) disagree on the statement. Furthermore, 64 (42.7%) of the respondents agree that strategies to adapt to climate change effects on farming can be disseminated to farmers using radio, 47 (31.3%) strongly agree, 36 (24.0%) were undecided while 3 (2.0%) disagree on the statement.

RQ 2: What is the effectiveness of radio in improving farmers' agricultural knowledge and practices?

Table 2: The effectiveness of radio in improving farmers' agricultural knowledge and practices (N = 150)

Statement	SA	A	U	D	SD
Radio is widely accessible, even in remote areas where television and the internet may not be available	67 (44.7%)	79 (52.6%)	4 (2.7%)	-	-
Farmers can access agricultural information in their local languages through community radio stations	81 (54.0%)	65 (43.3%)	4 (2.7%)	-	-
Educational programs on radio stations can help farmers learn about modern farming techniques, pest control, and soil management	133 (88.7%)	5 (3.3%)	-	-	12 (8.0%)
Radio programs often include call-in segments where farmers can interact with experts and extension officers	77 (51.3%)	14 (9.3%)	59 (39.3%)	-	-

Table 2 showed the effectiveness of radio in improving farmers' agricultural knowledge and practices. It showed that 79 (52.6%) of the respondents agree that radio is widely accessible, even in remote areas where television and the internet may not be available, 67 (44.7%) of the respondents strongly agree while 4 (2.7%) were undecided on the statement. Also, 81 (54.0%) of the respondents strongly agree that farmers can access agricultural information in their local languages through community radio stations, 65 (43.3%) of the respondents agree on the statement while 4 (2.7%) were undecided on the statement. In addition, 133 (88.7%) of the respondents strongly agree that educational programs on radio stations can help farmers learn about modern farming techniques, pest control, and soil management, while 12 (8.0%) of the respondents strongly disagree while 5 (3.3%) of the respondents agree on the statement. Furthermore, 77 (51.3%) of the respondents strongly agree that radio programs often include call-in segments where farmers can interact with experts and extension officers, 59 (39.3%) of the respondents were undecided on the statement while 14 (9.3%) of the respondents agree on the statement.

Research Question Three: What are the challenges and limitations faced in using radio for agricultural communication?

Table 3: The challenges and limitations faced in using radio for agricultural communication (N = 150)

Statement	SA	A	U	D	SD
Radio provides only audio-based information, making it difficult to demonstrate complex farming techniques	79 (52.7%)	7 (4.7%)	64 (42.6%)	-	-

Some farmers rely on traditional farming practices and may be reluctant to adopt modern techniques shared on radio	46 (30.7%)	88 (58.7%)	15 (10.0%)	1 (0.7%)	-
Lack of collaboration between radio stations, agricultural extension services, and research institutions to ensure accurate and timely information	52 (34.7%)	83 (55.3%)	12 (8.0%)	3 (2.0%)	-
Farmers with low literacy levels may struggle to understand some technical messages	102 (68.0%)	32 (21.3%)	11 (7.3%)	5 (3.4%)	-
Some farmers may be resistant to adopting new agricultural practices due to cultural beliefs and traditional farming methods	81 (54.0%)	22 (14.7%)	31 (20.7%)	16 (10.7%)	-

Table 3 showed challenges and limitations faced in using radio for agricultural communication. It revealed that 79 (52.7%) of the respondents strongly agree that radio provides only audio-based information, making it difficult to demonstrate complex farming techniques, 64 (42.6%) of the respondents were undecided while 7 (4.7%) of the respondents agree on the statement. Also, 88 (58.7%) of the respondents agree that some farmers rely on traditional farming practices and may be reluctant to adopt modern techniques shared on radio, 46 (30.7%) of the respondents strongly agree to the statement, 15 (10.0%) of the respondents were undecided while 1 (0.7%) of the respondents disagree on the statement. In addition, 83 (55.3%) of the respondents agree that lack of collaboration between radio stations, agricultural extension services, and research institutions to ensure accurate and timely information, 52 (34.7%) of the respondents strongly agree, 12 (8.0%) were undecided while 3 (2.0%) o the respondents disagree on the statement. In the same vein, 102 (68.0%) of the respondents strongly agree, 28 (18.7%) agree, 11 (7.3%) were undecided while 5 (3.4%) of the respondents disagree on the statement. Furthermore, 81 (54.0%) of the respondents strongly agree that some farmers may be resistant to adopting new agricultural practices due to cultural beliefs and traditional farming methods, 22 (14.7%) of the respondents agree, 31 (20.7%) were undecided while 16 (10.7%) of the respondents disagree on the statement.

Discussion of Findings

The study is on the influence of radio on agricultural communication among farmers in Yewa South Local Government Area of Ogun State. The result of the study showed that majority of the respondents agree that radio plays a vital role in disseminating information on weather forecasts and climate updates to farmers. In addition, majority of the respondents agree that vital information such as improved seeds, government subsidies and support are communicated to farmers via radio. Also, majority of the respondents agree that radio is widely accessible, even in remote areas where television and the internet may not be available and farmers can access agricultural information in their local languages through community radio stations This finding supports the study of Haruna and Ibrahim (2024) who reported that respondents gained substantial information about new agricultural developments through radio. Also, Yakubu et al. (2019) reported that most respondents acknowledged acquiring new agricultural knowledge through radio and television programs.

Furthermore, the challenges and limitations faced in using radio for agricultural communication include low literacy levels among farmers which may make them struggle to understand some technical messages, inadequate program funding as many of the agricultural radio programs suffer financial constraint and some farmers may be resistant to adopting new agricultural practices due to cultural beliefs and traditional farming methods.

Conclusion

In conclusion, radio plays a vital role in communicating relevant information on agricultural practices to farmers. Vital information such as improved seeds, government subsidies and support are communicated to farmers via radio. In remote areas where it is difficult to get access to television and internet, farmers can access agricultural information in their local languages through community radio stations. However, some of the challenges identified in using radio for agricultural communication include low literacy levels among farmers, inadequate program funding and cultural beliefs and traditional farming methods which may hinder local farmers from new agricultural practices.

Recommendations

i. Radio should be upheld as a means of disseminating agricultural information to make up for the scarcity of extension agents in Yews South, Ogun State.
ii. More education programs on agricultural practices should be aired on radio in local languages in order to enhance literacy level of local farmers.

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