

Influence of Television Messages on the Knowledge and Adoption of Agricultural Innovation among Farmers in Kwara State, Nigeria



**Ucheanya Florence[♦];
Tsegysu Santas[♥]
&
Muhammad Sani Rabiou^{*}**

Abstract

This study sought to investigate the extent to which television messages have helped farmers in knowledge and adoption of agricultural innovations in Kwara State. The objective of the study is to find out the level of awareness of television messages for knowledge and adoption of agricultural innovation among farmers in Kwara State, Nigeria. The study is grounded in the Technological Determinism Theory. Survey research method was adopted and based on a population of 250,000 residents of the study area, a sample of 384 respondents was polled using the Krejcie and Morgan formula for sample size determination. The findings revealed that farmers in Kwara State (38.7%) actively use television to access information on agricultural innovations. Additionally, the study found a significant relationship between broadcast media and farmers' knowledge and adoption of agricultural innovations. Also, the study revealed that Kwara TV agricultural programmes are effective in improving farmers' agricultural skills with 113 (31.7%) respondents affirming to its effectiveness. The study further revealed that respondents learnt and adopted new farming techniques from agricultural innovations programme on Kwara TV such as improved variety of seeds, soil selection and application of fertiliser of various types, preservation methods, judicious distribution of crops as well as livestock farming, fish culture and agro-forestry. Based on the findings, the study concluded that television messages on agricultural innovation have contributed tremendously to knowledge and adoption of agricultural innovation by farmers in Kwara State. Despite the efforts of the government, common challenges persist, including addressing usage of language, lack of farmer participation in agriculture innovation programme development, lack of sufficient skills by farmers, fear of crop animal failure and high cost of the purchase and adoption of the agricultural

[♦] **Ucheanya Florence**, Department of Mass Communication, Faculty of Communication and Media Studies, Nasarawa State University, Keffi. *u cheanyaflorence@gmail.com; tsegysu@nsuk.edu.ng*

[♥] **Tsegysu Santas**, Department of Mass Communication, Faculty of Communication and Media Studies, Nasarawa State University, Keffi.

^{*} **Muhammad Sani Rabiou**, Department of Mass Communication, Faculty of Communication and Media Studies, Nasarawa State University, Keffi.

innovation among several others. Based on the findings and conclusion, the study recommended, among other things, the establishment of community viewing centers and the integration of other agricultural information channels with broadcast media to further promote innovation and development in the agricultural sector in these states and across Nigeria.

Keywords: *Television messages, Agricultural innovation, Communication, Influence, Nigeria*

Introduction

Agriculture is a cornerstone of Nigeria's economy, employing approximately 80% of the rural population and contributing significantly to foreign exchange earnings. Despite its importance, the sector faces numerous challenges, including land tenure issues, limited access to irrigation, climate change impacts, and inadequate infrastructure. These issues are compounded by farmers' limited access to basic amenities such as water, electricity, and transportation, making it difficult for them to commercialise their produce and access markets (Al Mahadi, Rahman, Islam, Rahman and Khanum, 2022). These structural and systemic challenges have constrained agricultural productivity, increasing Nigeria's reliance on food imports to meet the demands of its growing population.

In response to these challenges, innovation diffusion has become a key focus of agricultural development. Over the years, research institutions in Nigeria have introduced a variety of innovations, such as improved seed varieties, advanced farming equipment, and sustainable farming techniques. However, adoption rates remain low due to inadequate dissemination of information, particularly among rural farmers. This highlights the role of communication channels, especially broadcast media, in facilitating the transfer of knowledge and innovations to the farming community (Agwu, Ekwueme, & Anyanwu, 2018).

Television as a widely accessible and influential medium, offers an untapped opportunity for reaching rural farmers with vital information on improved agricultural practices. Television is a key medium for providing rural communities with the information necessary to make informed decisions about their agricultural activities, particularly in developing countries (Oyedele, 2020). Television has the power to influence farmers' knowledge, attitudes, and adoption of new agricultural practices by increasing awareness about new technologies, showcasing their benefits and applications, offering practical demonstrations, and providing training. It also plays a crucial role in communicating agricultural innovations to a broad audience of farmers, rural communities, and stakeholders in Kwara State. Unlike other forms of communication, television enables a one-way flow of information from the source to the audience. Its visual component allows farmers to see practical demonstrations of technologies, which can enhance understanding and create a sense of connection between the presenter and the audience. This visual engagement can be more effective than auditory information alone, as it helps farmers to better comprehend and see new technologies (Afolabi, 2017). Information is vital for successful agricultural management and operations. In many developing countries, television remains a crucial tool for supporting the agricultural sector through extension activities. The potential of modern electronic technology can be harnessed to document and enhance farming communities (Bamidele, 2020).

However, farmers' adoption of modern practices and technologies remains low, due to limited access to information, low agricultural productivity and slow adoption of innovative farming practices persist among farmers. Television, with its vast reach and accessibility, offers a promising solution. However, the effectiveness of television messages in enhancing farmers' knowledge and adoption of agricultural innovations remains uncertain (Adegbite, 2019). Current television programming fails to account for farmers' specific information needs, preferred communication channels, and learning styles. Furthermore, the impact of television messages on farmers' attitudes, perceptions, and behaviors towards innovation adoption is poorly understood. This knowledge gap hinders the development of evidence-based communication strategies, underscoring the need for research into the influence of television messages on farmers' knowledge of agricultural innovation (Adeyeye, Odiboh, Adesina, Yartey, Ekanem & Ben-Enukora, 2018).

Research has shown that exposure to agricultural messages through television can enhance farmers' knowledge and awareness of innovative practices, influence attitudes towards adoption of agricultural innovation and improve agricultural productivity (Agwu et al., 2018). Most existing studies focused primarily on radio and print media neglecting the potential of television agricultural extension. Hence, the effectiveness of television messages in enhancing farmers' knowledge and practices is not well understood. This study aims to bridge this knowledge gap by examining the impact of television messages on farmers' awareness, understanding, and adoption of agricultural innovations. Specifically, it seeks to identify the types of television messages that are most effective, the factors influencing farmers' receptivity to these messages, and the role of television in complementing existing agricultural extension.

Statement of the Problem

The dissemination of agricultural innovations to farmers remains a significant challenge, hindering agricultural development and productivity. Despite efforts to promote modern farming practices, many farmers continue to rely on traditional methods, largely due to limited access to information (Adegbite, 2019). Television, a widely available medium, has the potential to bridge this knowledge gap. However, existing television messages often fail to effectively communicate agricultural innovations to farmers. The content may be inadequate, inaccessible, or irrelevant to farmers' specific needs, leading to a lack of adoption (Komolafe and Adesiji, 2018). Thus, the goal of this study is to find out how much farmers in Kwara State, Nigeria, have learned and adopted agricultural technologies as a result of television messages.

Objectives of the Study

1. Find out the level of awareness of television messages for knowledge and adoption of agricultural innovation among farmers in Kwara State, Nigeria.
2. Investigate how television messages are transmitted to farmers for knowledge and adoption of agricultural innovations in Kwara State, Nigeria.
3. Ascertain the effectiveness of television messages for knowledge and adoption of agricultural innovations among farmers in Kwara State, Nigeria.
4. Examine innovations adopted by farmers through television messages in Kwara State, Nigeria.

5. Identify the impeding factors to television messages for knowledge and adoption of agricultural innovations among farmers in Kwara State, Nigeria.

Conceptual Clarification

Television Messages

Television messages encompass the various types of information, ideas, and content broadcast through TV programs, advertisements, and other transmissions. In the realm of agricultural innovation, these messages may consist of agricultural advisory programs, farming demonstrations, product advertisements (such as seeds, fertilizer and pesticides), success stories of pioneering farmers, educational content on best farming practices, weather forecasts, market updates, government policies, training sessions, and promotional campaigns for new technologies or products. These messages can be delivered through diverse formats, including documentaries, expert interviews, how-to videos, animated explanations, talk shows, news segments, commercials, and educational dramas (Ajala, 2018).

Television's role in disseminating agricultural information is significant due to its ability to reach a large audience quickly, making it an efficient medium for spreading knowledge about new agricultural innovations. As Alagba, Nwosu, Nwankwo, (2020) notes, television is a key electronic medium for this purpose. Oyedele (2020). Emphasises the importance of leveraging TV's potential for the benefit of farmers. (Bamidele, 2020) highlighted that broadcasting's role in agriculture arises from its collective approach with specific objectives. This form of communication targets particular population segments and adheres to established norms. Effective broadcasting involves consulting with stakeholders during message development and includes various techniques, such as farmer interviews, farming advice interspersed with music, and daily agricultural news broadcasts (Ogunwale, 2019; Santas and Asemah, 2013).

According to Ajala (2018), broadcasting serves several critical functions in agriculture: It raises awareness about new techniques and encourages farmers to consult extension agents for further details, making it a rapid means of communication, especially during emergencies like pest outbreaks. It effectively announces meeting points, training sessions, work programs, and provides a broad range of information on prices, market materials, agricultural policies, and changes. It facilitates communication between extension services and farmers, helping them stay informed about agricultural advancements so that they can be acquainted with modern methods of farming (Asemah, Nkwan-Uwaoma & Santas, 2017).

Broadcasting professionals and agricultural communicators should continuously strive to improve the quality of agricultural messages, offering access to multiple information sources rather than serving as a mere mouthpiece for official agencies. They should also aim to integrate mass media with face-to-face extension services. In addition to providing information on land preparation, planting materials, plant growth, harvest, storage, and biotechnology, broadcasting can also assist in facilitating access to small-scale loans and providing valuable insights into agricultural practices in the country (Alagba *et al*, 2020).

Agricultural Innovation

Developing and implementing innovative methods, strategies, tools, and products to increase agricultural output, profitability, sustainability, and efficiency is known as

agricultural innovation. To address the issues and take advantage of the opportunities in the farming industry, this process combines cutting-edge technologies such as robotics, biotechnology, precision farming, and big data analytics (Ferrer, Thanh, Chuong, Kiet, Trang, Duc, Hopanda, Hopanda, Camelta & Bernardo, 2023). Drought-resistant crops, vertical farming, smart agriculture technology, precision irrigation systems, and bio-based herbicides and fertilisers are a few examples of innovative agricultural practices. In order to meet the increasing demand for food, fuel, fiber, and other necessities while protecting natural resources and slowing down climate change, these advances are crucial.

Furthermore, the creation of new markets, value chains, and business models that improve agriculture's competitiveness and economic viability is included in agricultural innovation. To satisfy changing consumer tastes, this may entail developing goods or services, such as sustainably produced or organic food items. The need to overcome obstacles including climate change, degraded soil, water scarcity, pests and diseases, and restricted access to resources and expertise frequently drives agricultural innovation. Agricultural innovation boosts farmers' productivity, sustainability, and resilience by bringing in new tools and techniques (Tasie Wilcox, Kalio, & Igilar, 2021).

Literature Review

Television agricultural innovation programs have been instrumental in disseminating knowledge and promoting adoption of modern farming practices among farmers. Some popular types include demonstration programs are those programs that showcase step-by-step demonstrations of new farming techniques, such as crop rotation, irrigation management, and integrated pest management (Al Mahadi *et al.*, 2022). They provide visual guidance, enhancing farmers' understanding and confidence; expert interviews are interviews with agricultural experts, researchers, and extension agents, which provide insights into innovative practices, addressing common challenges and offering practical advice.; farmer success stories are documentaries highlighting successful farmers' experiences with new technologies and practices inspire others to adopt similar innovations; training and capacity building offers programs training on specific skills, such as equipment operation or soil testing, enhance farmers technical capacities,; market and price updates are real-time market information helps farmers to make informed decision on crop selection, pricing and marketing strategies; interactive shows are call-in programs and live discussions allows farmers to ask questions, share experiences and receive instant feedback from experts; documentary series are in-depth explorations of innovative agricultural projects, technologies and policies raise awareness and stimulate interest; extension services are collaborations with local extension service provide targeted guidance, addressing location-specific challenges (Wyss & Cletzer, 2023). These television programs bridge knowledge gaps, build capacity and encourage the adoption of innovative agricultural practices among farmers, contributing to improved productivity and sustainability.

Agricultural innovation television programmes play a vital role in disseminating knowledge and promoting the adoption of modern agricultural practices among farmers in Kwara State, Nigeria. These programmes, broadcast through local and national television stations, reach a wide audience of farmers, extension agents, and other stakeholders in the agricultural sector. By showcasing successful agricultural innovations, such as improved crop varieties, irrigation techniques, and livestock

management practices, these programmes educate farmers on the benefits and practical applications of these innovations (Tasie *et al.*, 2021; Asemah and Santas, 2013). Additionally, many programmes feature demonstrations, interviews with experts, and testimonials from fellow farmers who have successfully adopted these innovations, making the information more relatable and accessible. These agricultural innovation programmes are transmitted weekly, that means once every week, monthly once every month, fortnightly transmitted every two weeks, and quarterly transmitted every three months (Alagba *et al.*, 2020).

Review of Empirical Studies

Adekunle (2020) conducted a study on Influence of radio and television broadcasting on the adoption of agricultural innovations among farmers in North-Central Nigeria. The study's specific objectives were to; determine the extent to which farmers in the area can access and use radio and television broadcasts for agricultural information; evaluate the effect of these media on farmers' awareness of and adoption of new agricultural technologies and practices; pinpoint the variables that either support or impede the propagation of agricultural innovation adoption through radio and television broadcasts; and offer suggestions for enhancing the use of broadcasting in agricultural extension services in North-Central Nigeria.

According to the survey, 80% of respondents said they listened to agricultural programs on the radio at least once a week, making radio broadcasting the most popular source of agricultural information among farmers in North -Central Nigeria. Only 20% of respondents, on the other hand, said they regularly watched television shows about agriculture. The study also discovered that farmers were more inclined to adopt new technology and practices—like better seed kinds and fertilizers—than those who did not listen to agricultural programming on the radio. Additionally, the study found that radio broadcasting was effective in reaching farmers with limited formal education and those living in remote areas. However, the study also identified some challenges, including limited access to radio sets and electricity, poor signal quality, and lack of relevance of broadcast content to farmers' specific needs. Based on the conclusion, this study recommended that training for broadcasters and extension agents on effective communication strategies and agricultural content development.

In a similar vein, Ojo (2024) carried a study on the role of television broadcasting in the adoption of agricultural innovations among farmers in Niger State, Nigeria. The study's primary goal is to explore the impact of television broadcasting on farmers' adoption of agricultural innovations in the region. Specifically, it aims to assess the level of exposure farmers in Niger State have to television programs on agricultural innovations, examine how television broadcasting affects their knowledge and awareness of these innovations, and evaluate the influence of television on farmers' attitudes and the adoption of agricultural innovations. Moreover, the study seeks to identify the factors that either enhance or limit the effectiveness of television broadcasting in promoting the adoption of agricultural innovations among farmers in Niger State. By meeting these objectives, the study aims to offer insights into how television broadcasting promotes the adoption of agricultural innovations and contribute to creating effective strategies to enhance agricultural productivity and food security in Niger State.

The research revealed that television broadcasting plays a crucial role in influencing the adoption of agricultural innovations among farmers in Niger State, Nigeria. The findings indicated that farmers who regularly watched television programs focused on agricultural innovations had greater knowledge and awareness of new technologies and practices, and were more inclined to adopt these innovations compared to those who did not engage with such programs. Specifically, the study found that television broadcasting was most effective in promoting the adoption of innovations related to crop production and management, followed by livestock production and management.

Additionally, the study revealed that factors such as frequency of watching television programs, relevance of broadcast content, and access to television sets significantly influenced the effectiveness of television broadcasting in promoting agricultural innovation adoption. However, the study also found that limited access to television sets, poor signal quality, and lack of relevance of broadcast content were significant constraints to the effectiveness of television broadcasting. The study highlights the potential of television broadcasting as a tool for promoting agricultural innovation adoption among farmers in Niger State. The study recommended that efforts should be made to increase access to television sets among farmers in Niger State, particularly in rural areas, to enhance the effectiveness of television broadcasting in promoting agricultural innovation adoption.

Theoretical Framework

The Technological Determinism Theory

This study was framed by two major theories: the theory of technological determinism. McLuhan Marshall introduced the thesis of technological determinism in 1964. It postulates that technology is the main force behind social, cultural, and historical change. According to this thesis, social structures, interpersonal interactions, and human behavior are all impacted by technology improvements. Proponents argue that technology has a deterministic impact, meaning that its effects are inevitable and uncontrollable. As technology evolves, it creates new possibilities, constraints, and demands that shape human actions and societal structures. This perspective emphasizes the agency of technology, positing that it is the primary force behind social transformation, rather than human decisions or social context. In essence, Technological Determinism Theory contends that technology is the key factor in shaping the course of human history, and that its development and diffusion are the primary drivers of social change (McLuhan, 1964).

The Technological Determinism Theory is relevant to the study on the influence of television messages on knowledge and adoption of agricultural innovation among farmers in Kwara State, Nigeria, as it suggests that the technology of television has the power to shape the knowledge, attitudes, and behaviors of farmers. According to this theory, the introduction of television messages on agricultural innovation can lead to a transformation in the way farmers think, learn, and adopt new practices. The theory implies that the technology of television can regulate the extent to which farmers are exposed to, and influenced by, agricultural innovation messages. Furthermore, it suggests that the characteristics of television, such as its ability to reach a wide audience and simply convey complex information, can shape the adoption of agricultural innovation among farmers. By applying the Technological Determinism Theory, the

study can examine how television messages can be leveraged to promote agricultural innovation adoption among farmers in Kwara State, and how the technology of television can be optimized to enhance its impact (Mcluhan, 1964),

Methodology

Survey method was used to carry out this study. Questionnaire was used to collect data. Data generated was collated using simple table, frequency, percentage and likert scale questions. According to National Bureau of Statistics/ National Population Commission (2023) shows that Kwara State has a total of 3,390,330, residents with 16 Local Government Area namely; Asa, Baruten, Edu, Kaiama, Moro, Pategi, Ilorin East, Ilorin South, Ilorin West, Offa, Ekiti, Ifetodun, Irepodun, Isin, Oke-ero, Oyun, LGA. Out of 16 LGA Asa LGA were purposively selected with 250,000 farmers. The procedure for drawing out a representative sample for the study was done using 5 multistage sampling technique. The study was purposively conducted in Asa LGA due to low adoption of agricultural innovation practices observed by the researcher in that area and for conveniences, all the names of the Council wards were written on separate pieces of papers, folded and dropped in a basket. The research assistant was asked to pick five pieces of paper from ten selected council wards and the five communities namely; Afon, Aboto-oja, Ballah, Alapa and Laduba were chosen from the council wards and again purposive sampling technique were used here as only those farmers, who owned television sets and listened to television messages on agricultural innovation frequently were sampled for the study. Based on the recommendations of Krejcie and Morgia (1970), the sample for this study is three hundred and eighty (384) and a total of 384 questionnaires were administered and 357 were returned. Thus, all decisions were based on the 357 copies returned as presented below.

Data Analysis and Presentation

Table 1: Awareness of broadcast media messages on agricultural innovation.

Kwara		
Level of Awareness	Frequency	Percentage
Are you aware of agricultural innovation programmes produced and transmitted on Kwara television station?		
Extremely Aware	138	38.7
Moderately Aware	104	29.1
Somewhat	63	17.6
Slightly	52	14.6
Not at all	0	0
Total	357	100

Source: Field survey, 2024

Table 1 above displays the respondent’s awareness of television messages on agricultural innovation on Kwara TV. It implies that majority of the respondents from Kwara State are extremely aware of agricultural innovation programmes on Kwara TV with 138 (38.7%) respondents. This means that farmers have complied with one of the driving

processes for the success of technological innovations, farmers are urged to expose themselves to mass media messages for information on the agricultural for agricultural advancement and sustainability.

Table 2: Regularity of Agricultural Programmes produced by Kwara TV.

Options	Kwara	
	Frequency	Percentage
How often are agricultural programmes produced on Kwara television?		
Once Weekly	163	45.7
Once weekly + a repeat broadcast	93	26.1
Twice weekly	45	12.6
Monthly	56	15.6
Total	357	100

Source: Field survey, 2024

The data in table 2 above confirms that Kwara TV present agricultural programmes on a regular basis. From the data above it shows that respondents watch agricultural programmes on Kwara TV once weekly mostly with 163 (45.7%) respondents.

Table 3: Effectiveness of Agricultural Innovation TV Programmes.

Options	Kwara	
	Frequency	Percentage
How effective is agricultural innovation TV programs in improving your agricultural skills?		
Not effective	22	6.2
Somewhat effective	75	21.0
Neutral	43	12.0
Effective	113	31.7
Very effective	104	29.1
Total	357	100

Source: Field survey, 2024

From table 3 above shows the effectiveness of TV agricultural innovation programs. From the data displayed it implies that agricultural programmes on Kwara TV are effective to improve farmers' agricultural skills with 113 (31.7%) respondents.

Table 4: Which techniques have you learnt and adopted?

Statements	Kwara	
	Frequency	Percentage
Which of the following techniques have you learnt and adopted?		
A. Crops		
-Introduction of improved varieties of seeds		
-Judicious application of fertilizers of various types		
-Special and judicious distribution of crops in a mixture		
-Preservation methods		
-Judicious use of pesticides		
-Soil/type selection and fertiliser regions (plant geometry)		
-Appropriate planting density		
-All of the above	115	32.2
B. Livestock		
-Livestock housing		
-Livestock feeds		
-Pest and disease control		
-Crocols exchange programme		
-Artificial incubation		
-All of the above	90	25.0
C. Fisheries		
-Home stage fish farm construction		
-Feeding of fish using local materials		
-Fish culture		
-All of the above	82	23.0
D. Agro-forestry		
-Soil conservation using contour		
-Snail keeping		
Modern bee-keeping		
-Alley cropping		
All of the Above	70	19.6
Total	357	100

Sources: (Field Survey, 2024).

Table 4 seeks to know from the respondents the type of new farming techniques learnt and adopted from the agricultural programmes on Kwara TV. From the data it indicates that the farmers have learnt and adopted a variety of techniques which are being put to use, especially crop techniques with 115 (32.2%) respondents.

Table 5: Impending Factors to adoption of Agricultural Innovation Programmes

Options	Kwara	
	Frequency	Percentage
What are the impending factors hindering high rate of adoption of agricultural innovation.		
Duration of the broadcast is short	97	27.2
Usage of language	121	33.9
Timeliness and limited access to information on agricultural innovations	69	19.3
Lack of farmer participation in agricultural innovation	41	11.5
Lack of access to credit facilitate/ services	29	8.1
Total	357	100

Sources: (Field Survey, 2024).

Table 5 above seeks to know from the respondents which factors hinders high rate of adoption of agricultural innovations. From the data it shows several factors which impede high rate of adoption of agricultural innovations by farmers in Kwara state is the usage of language indicating the major factor that hinders high rate of adoption of agricultural innovations with 121 (33.9%) respondents

Discussion of Findings

The findings of the study revealed that (38.7%) respondents are extremely aware of agricultural innovation programmes on Kwara TV followed by moderately aware with (29.1%) respondents, somewhat with (17.6) respondents, slightly with (14.6%) respondents and not at all with (0%) respondents. This means that farmers have complied with one of the driving processes for the success of technological innovations, farmers are urged to expose themselves to mass media messages for information on the agricultural innovations for agricultural advancement and sustainability. The findings also align with the theories of Asemah and Joda (2021), who contend that people's receptiveness to information from a source will depend on how reliable they perceive it to be. Additionally, the results are consistent with the media's Agenda Setting Theory, which holds that the media sets agendas for what they discuss and think about in addition to providing information on agricultural topics to raise awareness of new farming techniques for high productivity, sustainability, and development. These

findings are consistent with Santas, Asemah, and Jumbo, (2020), who claim that media messages typically have an impact on the people who receive them. Media gatekeepers make sure media messages are presented in a way that serves the intended purpose in order to prevent unintended consequences. As a result, the media skillfully frames their messages to raise public awareness of important topics. They impart all the necessary knowledge about pressing subjects to their viewers. Important topics and issues should not be restricted to the straight news reporting format; instead, issues that touch on citizens and society can also be covered through the use of additional news reportage formats like "features" and "opinions." Stated differently, this outcome is consistent with Kente (2015) assertion that the media has a responsibility to raise public awareness of issues pertaining to the welfare of society by disseminating knowledge about them via education and information.

This study also revealed that Kwara TV present agricultural programmes on a regular basis, once weekly with (45.7%) respondents, once weekly with a repeat (26.1%) respondents, twice weekly (12.6%) respondents and (15.6%) respondent monthly transmission respectively.

Also, this study revealed that the agricultural innovation programmes are effective to improved farmers agricultural skills with (31.7%) very effective with (29.1%) respondents, somewhat effective with (21.0%) respondents, neutral with (12.0%) respondents and not effective (6.2%) respondents. Respondents agrees the effectiveness of agricultural innovation TV program has improved their agricultural skills. In addition, this result is supported by Akase (2015) that the exposure to television messages positively correlated with adoption of innovations, as farmers who watched agricultural programs were more probable to adopt new practices and technologies.

Furthermore, this study showed that farmers learnt and adopted new farming techniques which are being put to use with (32.2%) respondents on crop techniques, livestock with (25.2%), those in fish farming with (23.0) and agro forestry with (19.6) respondents. Respondents agrees that they learnt and adopted new farming techniques through television messages on agricultural innovation programmes Also this result is supported by Adegbite (2019) that television's messages influence adoption of agricultural innovations among farmers.

However, the study revealed several impeding factors that hinder the effectiveness of television messages in promoting knowledge and adoption of agricultural innovation among farmers in Kwara State, Nigeria. Notably, duration of the broadcast is short with (27.2%) respondents followed by usage of language with (33.9%), timeliness and limited access to information on agricultural innovations with (19.3%) respondents, Lack of farmers' participation in agricultural innovation with (11.5%) and lack of access to credit facilitate/services with (8.1%) respondents. Despite the impact, there are impediments that obstruct the adoption of agricultural innovation. These results are in agreement with (Komolafe, & Adesiji, 2018) that many factors affect the knowledge and adoption of agricultural innovations.

Conclusion

From findings, this study concludes that TV messages through discussion program news analysis, talk show, magazine program, demonstration, expert interviews, farmer success stories, training and capacity building, market and price updates, interactive shows, documentary series and extension services programs have effectively influenced farmers

'knowledge and adoption of agricultural innovation in Kwara State. In spite of the influence, challenges still exist which hinder excellent flow methods, these include; infrastructure such as bad road poor picture quality on TV programmes, time of Kwara TV broadcast are done, duration of the broadcast is short, usage of language, lack of farmer participation in agricultural innovation program development

Recommendations

Based on the findings of this study, the ensuing recommendations are made:

1. Based on the findings and conclusion, the study recommends that Agricultural programs should be broadcast in local languages to ensure wider reach and comprehension.
2. Television programs should involve farmer participation and feedback mechanisms to address specific regional challenges and promote relevance.
3. Partnership between agricultural extension agencies and television stations should be fostered to ensure accurate and up-to-date information dissemination.

Efforts should be made to improve television access among farmers, particularly in rural areas, through initiatives such as solar-powered television sets or community viewing centers.

References

- Al Mahadi, R., Rahman, M. A., Islam, M. S., Rahman, S., & Khanum, S. (2022). Agricultural development challenges in the global south: Lessons for sustainable practice. *Sustainable Agriculture Research*, 11A (3), 24-38.
- Agwu, A. E., Ekwueme, J. N., & Anyanwu, A. C. (2018). Adoption of improved agricultural technologies disseminated via radio among farmers in Enugu State, Nigeria. *Journal of Agricultural Extension*, 22(1), 36-49.
- Asemah, E. S, Nkwan-Uwaoma, O.A. & Santas, T. (2017). *Community media for rural development communication: Principles, theories and practice*. Jos: University of Jos Press.
- Afolabi, O. O. (2017). Impact of television on farmers' knowledge and adoption of agricultural innovations in Kwara State, Nigeria. *Journal of Agricultural Extension*, 21(1) 123-135.
- Adegbite, D. A. (2019). Television's influence on adoption of agricultural innovations among smallholder farmers in Kwara State, Nigeria. *Journal of Agricultural Extension and Rural Development*, 11(2), 158-167.
- Adeyeye, B., Odiboh, O., Adesina, E., Yartey, D., Ekanem, T., Ben-Enukora, C.A. (2018). An examination of Information Communication Technology for Agriculture-Focused Teaching, Learning and Communication Research. *International Business Information Management Association Conference (IBIMA)*, Milan, Italy.
- Ajala, A. O. (2018). Effect of television messages on farmers' knowledge and adoption of integrated pest management practices in Kwara State, Nigeria. *Journal of Extension Education*, 30 (1),1-12.
- Alagba, C. O., Nwosu, A. C., Nwankwo, S. U. (2020). Role of Mass Media in Agricultural Extension Service Delivery in Imo State, Nigeria. *Journal of Agricultural Extension*, 24 (3), 1-12.

- Asemah, E. S. & Santas, T. (2013). Enhancing rural farmers access to agricultural information in Plateau State: Imperatives of indigenous communication systems. *Sokoto Journal of the Social Sciences*. (3) 1& 2. Pp 392 - 408.
- Akase T. M. (2015). Broadcasting and Adoption of Innovations in Fadama III Project in select States on Nigeria. *A thesis submitted to the Department of Mass Communication, Benue State University, Makurdi. Kogi State.*
- Adegbite, D. A. (2019). Television's influence on adoption of agricultural innovations among smallholder farmers in Kwara State, Nigeria. *Journal of Agricultural Extension and Rural Development*, 11(2), 158-167.
- Adekunle, A. A. (2020). The influence of radio and television broadcasting on the adoption of agricultural innovations among farmers in North-Central Nigeria. *Journal of Agricultural Communication*, 40 (2), 1-15.
- Asemah, E. S, & Joda, M. (2021). Influence of African Rosewood exploitation media campaign on residents of select communities in Southern Taraba. *SAU Journal of Management and Social Sciences*, 6, 120-135.
- Bamidele, O. S. (2020). Television role in promoting conservation agriculture practices among farmers in Kwara State, Nigeria. *Africa Journal of Agricultural Research*, 15(3), 231-241.
- Ferrer, A. J. G., Thanh, L.H., Chuong, P.H., Kiet, N. T., Trang, V.T., Duc, T. C., Hopanda, J. C., Hopanda, J. C., Camelta, B. M., & Bernardo, E. B. (2023). Farming household adoption of climate smart agricultural technologies: evidence from North-Central Vietnam. *Asia-Pacific Journal of Regional Science*, 7(2).
- Kente, J. (2015). Radio Broadcasting and the Adoption of Agricultural Innovations among Rural Farmers in Taraba State". *A Dissertation Submitted to the Postgraduate School, Benue State University Makurdi.* In Partial fulfillment of the Requirements for the Award of M.Sc in Mass Communication.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement* 30: 607-610.
- Komolafe, S.E., & Adesiji, G.B. (2018). An assessment of farmers' knowledge of yam entrepreneurial skills in Ekiti State, Nigeria. *Agricultural Science and Technology*, 10 (2), 133-139.
- McLuhan Marshall (1964). *The Gutenberg galaxy: The making of typographic man.* University of Toronto Press.
- National Population Commission (2022). Retrieved from [tps://tukool.com/list of the16 local government-areas-in Kwara State.](https://tukool.com/list-of-the-16-local-government-areas-in-Kwara-State)
- Oyedele, O.O. (2020). Impact of television on farmers' knowledge and adoption of climate-smart agricultural practices in Kwara State, Nigeria. *Journal of Climate change and Agricultural*, 4 (1), 1-13
- Ogunwale, A. B. (2019). Television broadcasting and adoption of improved maize varieties among farmers in Kwara State, Nigeria. *Journal of Agricultural Communication*, 33(2), 147-162.
- Ojo, J. A. (2024). The role of television broadcasting in the adoption of agricultural innovations among farmers in Niger State, Nigeria. *Journal of Agricultural Extension*, 48 (1), 12-25.
- Oyedele, O.O. (2020). Impact of television on farmers' knowledge and adoption of climate-smart agricultural practices in Kwara State, Nigeria. *Journal of Climate change and Agricultural*, 4 (1), 1-13.

- Santas, T., Asemah, E. S. & Jumbo, C. N. (2020). Mass media and the mobilisation of women for political participation during the 2019 gubernatorial election in Lafia, Nigeria. *The Nigerian Journal of Communication*, 17 (2), 199-217.
- Santas, T. & Asemah, S. E. (2013). Public perception of the role of rural broadcasting in rural development in Nigeria. *Journal of Sustainable Development in Africa*. (15).7. Pp 165-180.
- Tasie, C.M., Wilcox, G.I., Kalio, A.E., & Igilar, M.E. (2021). An evaluation of farmers' adoption of yam miniset technology in Agricultural Zone 3, Rivers State, Nigeria. *Journal of Agricultural Science and Practice*, 6(1), 13-18.
- Wyss, E., & Cletzer, A. (2023). Agricultural Communication Practitioner' Perspectives on Skills and Competencies Graduates Need to Be Career Ready: A mixed Methods Study with Implications for Undergraduate Programs. *Journal of Applied Communications*, 107(2), 12-25