EFFECTIVENESS OF BROADCASTING MEDIA IN DISSEMINATING AGRICULTURAL INFORMATION TO MAIZE FARMERS IN OVIA NORTH-EAST LOCAL GOVERNMENT AREA, EDO STATE, NIGERIA

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A PROJECT SUBMITTED TO THE DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION SERVICES, FACULTY OF AGRICULTURE, UNIVERSITY OF BENIN, BENIN CITY, NIGERIA, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF AGRICULTURE, (B.AGRIC. IN AGRICULTURAL ECONOMICS AND EXTENSION SERVICES)

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CERTIFICATION

This is to certify that this project work was carried out by **David Osahon OMORAGBON** with the matriculation number **AGR1900059** of the Department of Agricultural Economics and Extension Services, Faculty of Agriculture, University of Benin, Benin City, Nigeria

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DEDICATION

This project is dedicated to Almighty God who saw me through my undergraduate programme in the University of Benin, by giving me the strength and the grace to strive.

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ABSTRACT

This study aimed at accessing the effectiveness of broadcasting media in disseminating agricultural information to maize farmers in Ovia North-East Local Government Area, Edo state, Nigeria. The specific objectives were to describe the socio-economic characteristics of maize farmers, identify the broadcasting media available and accessible to maize farmers, examine the perceived benefits of broadcasting media utilized, determine the effectiveness of broadcasting media utilized, and identify constraints faced by maize farmers in the study area. Multi-stage and simple random sampling procedure was used in the selection of 150 respondents for the study. Primary and secondary data were collected and analyzed using descriptive statistics such as frequency counts, percentage, mean, and standard deviation while the hypotheses were analyzed using Regression analysis.

The findings revealed that 50.7% of maize farmers were female while 49.3% were male with a mean age of 48 years. Most (96.7%) of the respondents had access to electricity. Further findings show that broadcasting media was available to majority (61.9%) of the farmers and not available to a notable minority (38.1%). Also, majority of farmers (60%) perceived broadcast media to be very effective while 40% did not. Major constraints faced by the farmers were, poor network signal coverage ($\bar{x}$= 3.75), poor power supply ($\bar{x}$= 3.56). The study recommend that agricultural broadcast programs should be developed by local radios and community TV stations since most rural farmers rely on them by designing programmes for AM/FM thereby enhancing accessibility to broadcasting media.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of Study

Maize, also known as corn (*Zea mays*), is one of the most significant staple crops worldwide. It originated in southern Mexico approximately 9,000 years ago and has since spread globally, becoming a vital food source for both humans and animals. Agronomically, maize is a highly productive crop that thrives in diverse climates and soil types, although it requires substantial water and nutrients, especially nitrogen (International Maize and Wheat Improvement Center [CIMMYT], 2020). As a C4 plant, maize is highly efficient in photosynthesis, which contributes to its high yield potential (National Corn Growers Association [NCGA], 2020).

In recent decades, maize production has experienced significant growth. Global maize yields have nearly tripled since 1961, increasing from 2 tons per hectare to 5.8 tons per hectare by 2019. This remarkable rise is attributed to the widespread adoption of hybrid varieties and improved agricultural practices, leading to a 441% increase in production since 1961. Currently, global annual maize production is approximately 1,137 million tons (Food and Agriculture Organization [FAO], 2020). Maize remains a cornerstone of the global food supply, being the most extensively cultivated cereal crop worldwide and a key cereal crop in West Africa. In Nigeria, maize is the most important cereal food, with about 80% consumed by humans and animals, while 20% is utilized by industries

for producing starch, ethanol, corn sweeteners, and cereals (Ebukiba *et al*., 2020). However, as the global population grows and climate patterns become more unpredictable, maize production must adapt to meet the demands of a food-insecure world.

Access to accurate and timely information plays a critical role in this adaptation, as it serves as the foundation for informed decision-making, innovation, and resilience (FAO, 2017). Information on weather patterns, soil health, market trends, and best practices can significantly improve maize yields, optimize resource use, and reduce losses (World Bank, 2020). In Nigeria, access to such information enables farmers to make informed decisions, adopt innovative technologies, and enhance agricultural productivity and food security (Oladokun *et al*., 2020).

Various channels exist for disseminating agricultural information to farmers, including social media, which has a growing impact on agriculture by influencing trends and public opinion, while also raising concerns about privacy, misinformation, and health security. Platforms like Facebook, Twitter, and WhatsApp allow extension agents to provide farmers with timely information on best practices, market trends, and weather forecasts, empowering them to make informed decisions and improve productivity (Adebayo and Olaniyi, 2018).

Broadcast media also plays a crucial role in reaching a wider audience, particularly in regions like Nigeria, where agriculture is a vital part of the economy. Through radio and

television programs, broadcast media can disseminate critical information on best practices, weather updates, market trends, and innovative technologies, helping to improve farming outcomes (Yakubu and Adebayo, 2022). Furthermore, broadcast media can amplify farmers' voices, facilitating dialogue between stakeholders and policymakers (Adesina, 2019).

Globally, various broadcast media and mobile applications are being used to support agricultural information dissemination. For example, France, Argentina, and Mexico utilize mobile applications such as Agrifind, Agrofy and Agroapp to provide agricultural information. With the use of broadcast media, maize farmers may be able to embrace best practices, enhance productivity, and improve their livelihoods. Hence, there is research needs to investigate the use of broadcasting media in information dissemination among maize farmers in Ovia North-East Local Government Area, Edo State, Nigeria since the area is dominated by farmers and maize is about the most popular arable crops among farmers in the study area.

1.2 Problem Statement

The problem of inadequate access to information remains a critical barrier to the productivity and competitiveness of maize farmers in Nigeria. A significant number of maize farmers lack timely access to essential information regarding best farming practices, market trends, and emerging agricultural technologies, which hampers their ability to improve yields and adapt to changing agricultural landscapes (Odoemenan

and Obinne, 2020). This situation is exacerbated by the inefficiencies in the existing extension services, which struggle to effectively disseminate crucial information to rural farmers. Inadequate communication channels, particularly in rural areas, result in a considerable knowledge gap between farmers and essential agricultural developments (Oladokun *et al*., 2020). Traditional methods of information dissemination, such as print media and face-to-face extension services, have proven insufficient due to their limited reach and low effectiveness, further complicating farmers' ability to make informed decisions (Adebayo *et al*., 2019).

In light of the expanding role of digital and broadcast media in the modern agricultural ecosystem, there is growing recognition of the potential these platforms have for enhancing the spread of information. However, despite this potential, maize farmers in Nigeria continue to underutilize broadcast media for agricultural information, leading to missed opportunities for improving farm productivity and resilience (Yakubu and Adebayo, 2022). This low utilization points to gaps in both awareness and accessibility, as well as the suitability of content delivered via these media channels.

Thus, this research seeks to address the issue around information dissemination to maize farmers in Ovia North-East Local Government Area of Edo State by investigating the use of these broadcasting media. Specifically, it aims to evaluate how broadcast platforms can be leveraged to close the existing knowledge gap, enhance the accessibility of timely agricultural information, and support farmers in adopting best practices and new technologies. The research will answer critical questions about the

current use of broadcast media by farmers, the challenges they face in accessing broadcast information, and the overall impact of radio and television on agricultural decision-making and productivity.

Given the ground, it was therefore imperative to carry out this research with a view to producing answers to the following questions.

1. What are the socio-economic characteristics of maize farmers in the study area?
2. What are the broadcasting media available and accessible to maize farmers in the study area?
3. What are the perceived benefits of broadcasting media to maize farmers in the study area?
4. What is the effectiveness of broadcasting media utilized by respondents in the study area?
5. What are the constraints faced by maize farmers in accessing broadcast information from broadcasting media?

1.3 Objective of Study

The main objective of the study was to assess the effectiveness of broadcasting media in disseminating agricultural information to maize farmers in Ovia North-East Local Government of Edo State, Nigeria.

The specific objectives were to:

1. describe the socio-economic characteristics of maize farmers in the study area;
2. identify the broadcasting media available and accessible to maize farmers;
3. examine the perceived benefits of broadcasting media to maize farmers;
4. determine the effectiveness of broadcasting media utilized;
5. identify constraints faced by maize farmers in accessing broadcast information from broadcasting media.

1.4 Justification of the Study

Broadcast media plays a crucial role in disseminating agricultural information to rural farmers in Nigeria, yet limited research has been conducted on its specific effectiveness on maize farmers. While existing studies have primarily focused on digital media, such as the internet and social platforms (Adebayo *et al.,* 2018; Ojebuyi *et al.,* 2019), their accessibility remains a challenge in rural areas. In contrast, traditional broadcast media, particularly radio and television, continue to serve as the primary information sources. Although some studies, like that of Oladele *et al.* (2020), have explored the role of radio in agricultural knowledge dissemination, there is still a need for a comprehensive evaluation of how broadcast media influences maize productivity, farmer awareness, and the adoption of best practices in Nigeria.

Despite several studies on the role of broadcast media in agricultural communication, limited research has been conducted in Ovia North-East, Edo State, highlighting the need for this study. Without a thorough assessment, understanding the extent to which broadcasting media affects farmers in this region remains challenging.

This study will provide empirical evidence on the effectiveness of broadcast media in disseminating agricultural information within the study area. Its findings will contribute to existing literature, support policy development, and offer recommendations to help maize farmers enhance their productivity. While previous research has explored this subject in various contexts, few have focused specifically on Ovia North-East. This study seeks to address that gap.

1.5 Hypotheses of the Study

1. There is no significant relationship between respondents' socio-economic characteristics and effectiveness of broadcasting media in the study area.
2. There is no significant relationship between the socio-economic characteristics of maize farmers and their accessibility to broadcasting media in the study area.

CHAPTER TWO

2.0 LITERATURE REVIEW

The dissemination of agricultural information is important for enhancing productivity and food security, and ensuring the swift adoption of modern farming techniques. In most developing countries, broadcast media e.g., radio and television plays a major role in reaching rural farmers who may have limited access to extension services or digital communication platforms (Odeyemi and Olaoye, 2018). Agricultural extension services have played a pivotal role in bridging the knowledge gap between researchers and farmers. However, the reach of extension officers is often limited due to inadequate funding, logistical challenges, and infrastructural deficits (Danso-Abbeam *et al.,* 2018). The advent of mass media, especially broadcast media such as radio and television, has served to provide an alternative means of disseminating agricultural information to a wider audience.

Media is a powerful tool for communication, playing a crucial role in shaping society and influencing modern culture. Agriculture, as a key pillar of sustainable development and poverty alleviation, faces numerous challenges at global, regional, and national levels. Addressing these issues effectively requires the active involvement of the media. Broadcasting refers to the structured dissemination of information, education, and entertainment to diverse and widespread audiences via television (Folarin, 2000). Through economic programs, electronic media can educate the public and contribute to

national progress by accelerating and facilitating the gradual social transformation necessary for socio-economic development (Onabanjo, 2000).

According to Udoakah (1998), development communication focuses on how communication can be used as a structured approach to drive societal progress. It aims to persuade people to embrace new ideas and adopt improved methods, making it a corrective, integrative, and transformative tool that prioritizes tangible results. The need for development communication remains crucial, especially since a significant portion of the population resides in rural areas and depends on agriculture. Effective communication and media are essential in fostering development-driven change within any society.

Communication plays a vital role in the human aspects of development by establishing dialogue with rural communities, involving them in planning their own progress, providing essential information to drive social transformation, and delivering knowledge and skills that enhance their quality of life. Okiy (2003) emphasizes that rural development is a fundamental aspect of economic growth, and access to relevant information is crucial in this process. Regardless of literacy levels, rural populations should be equipped with knowledge that enables them to fulfill their social and political responsibilities while becoming more informed citizens. Given that agriculture serves as an economic link between rural and urban areas—providing food, employment, and natural resources—there is a pressing need for media to broadcast agricultural programs.

Broadcast programming involves the careful selection and scheduling of content to achieve specific objectives, ensuring that it is engaging and results-driven. The primary goals of economic broadcast programs, as highlighted by Onabanjo (2001), should be to monitor trends in production, stimulate creativity and curiosity, instill a strong work ethic, enhance productivity, improve societal living standards, and encourage the consumption of locally produced goods to promote self-reliance and sustainability. A study conducted by Mazher *et al.* (2003) on the role of electronic media in the adoption of agricultural technologies by farmers in central Punjab, Pakistan, revealed that 67% of farmers owned radio and television sets. Furthermore, over 56% of the surveyed farmers regularly watched or listened to agricultural programs through these media.

The agricultural sector remains one of the most vital contributors to the economies of many nations, playing an undeniable role in economic advancement (Hassan *et al.,* 2010). The rise of an information-driven society presents significant opportunities for achieving meaningful development, as both knowledge and communication are essential components. While agricultural specialists may develop excellent programs and projects, their success depends on how effectively they are communicated to farmers and other key stakeholders. However, a major challenge in rural development is the lack of accessible communication channels, particularly in regions where illiteracy is prevalent and people struggle to obtain information independently.

To fully capitalize on global economic changes and policies affecting agricultural pricing, marketing, and trade, agricultural media strategies must be re-evaluated.

Today's world is dominated by social media, which has permeated every aspect of society, from economics and politics to civil interactions. As a result, it is crucial for agricultural professionals to explore and utilize media platforms for effective communication. Media plays a significant role in rapidly disseminating new agricultural information to end-users, maximizing opportunities and benefits. Through media, users can engage directly with customers, service providers, and information-sharing centers. The dissemination of agricultural information through media is a key factor in improving all aspects of the sector.

2.1 Communication

Communication is a dynamic process through which individuals exchange meanings (Leeuwis, 2004). This exchange is facilitated by a diverse range of mediums, including verbal and written language, visual representations such as images and drawings, musical expressions, alphabetic symbols, and nonverbal cues like body language (Omkes, 1986). Narula (2006b) defines communication as the transmission of ideas from one individual to another.

Furthermore, communication can serve a persuasive function, aiming to elicit a desired response from its recipients. It encompasses interaction at multiple levels—within oneself, with others, and with both internal and external environments. Rather than being a purely linear process, communication operates in two-way and multi-way dimensions, fostering dialogue and exchange. Its primary function is to establish

connections, enhance awareness, disseminate information and influence attitudes and behaviors through these interactions (Narula, 2006a). The communicative process can also be directive or persuasive, facilitating three key types of change: (1) raising awareness and sharing information, (2) shaping attitudes and behaviors through education and motivation to foster mutual understanding, and (3) providing entertainment (Narula, 2006b).

The source is a fundamental component of the communication process, encompassing individuals, groups, or organizations that encode message data and transmit information through a designated channel to the receiver(s). Several key factors determine the effectiveness of a source:

(i) A positive attitude

(ii) The ability to select appropriate and meaningful symbols tailored to the audience and context.

(iii) Comprehensive knowledge of the subject matter being communicated (Ayaz, 2005).

Additionally, the credibility of the source plays a crucial role in both interpersonal and mass communication. Credibility is categorized into three types: initial or extrinsic credibility, which is derived from the source's position or title; derived credibility, which is shaped by the audience's perception during communication; and terminal

credibility, which is established after the interaction concludes. Research indicates that highly credible sources exert an immediate influence on audiences, whereas sources perceived as lacking credibility are often regarded as biased and unreliable (Narula, 2006a).

The message constitutes the second key element of the communication process, referring to the informational content transmitted from the source to the receiver. Messages incorporate both linguistic and nonverbal elements, which are often culturally specific. The essential dimensions of message content include listening, interpretation, understanding, feedback, content selection, and potential distortions. The effectiveness of a message is determined by its capacity to produce the intended effect on the audience, whether that effect is immediate, latent, or only partially comprehended. The impact of a message can be assessed through its ability to generate awareness, knowledge acquisition, attitude shifts, and behavioral changes, all of which depend on the interaction between communication channels, audience characteristics, and societal influences (Narula, 2006b). A well-constructed message should exhibit the following qualities: clarity (ease of comprehension), specificity (relevance to the audience), simplicity and accuracy, timeliness, and practical applicability (Sawant, 2006).

The third essential element of the communication process is the channel or medium, which facilitates the transfer of messages to the intended audience. In verbal communication, for example, sound waves generated by vocal cords transmit speech to

another individual's auditory system, ultimately activating cognitive processing (Leeuwis, 2004).

An effective communication channel must meet several criteria: (i) the ability to reach the target audience efficiently, (ii) alignment with the audience's capabilities and preferences, (iii) suitability for achieving the communicator's objectives, and (iv) the integration of multiple channels for reinforcement (Sawant, 2006).

Narula (2006a) identifies three primary types of communication channels: interpersonal communication, sign-based communication, and mass media. The efficacy of media-based communication is influenced by the reciprocal relationships between media, society, and audiences. Moreover, socio-economic, political, cultural, and technological factors shape media systems. Traditional media channels, such as print, broadcasting, telecommunications, and film, serve as primary means of reaching audiences. In the context of agricultural communication, Ashraf (2008) found that farm and home visits, method and result demonstrations, and discussion meetings were more effective in disseminating information to farmers compared to other media. The selection and utilization of media evolve over time, influenced by factors such as technological advancements, resource availability, economic conditions, accessibility, and the nature of media content (Narula, 2006b).

The final element of the communication process is the receiver or audience, which serves as the focal point of communication efforts. The effectiveness of communication

is ultimately determined by the audience's ability to comprehend and interpret the message. If the audience fails to understand the message, the entire communication process becomes ineffective. Consequently, communicators must consider the audience's language, cultural background, and preferred modes of information reception to ensure successful message delivery (Ayaz, 2005).

2.2 Importance of Media in Agriculture

The media serves as a crucial platform for obtaining and exchanging information. In today's world, public awareness of global events, including wars and international crises, is largely shaped by mass media. As the "fourth estate," the media wields significant influence in shaping public opinion and raising awareness about various issues. However, with this power comes the responsibility to ensure accuracy in reporting while also safeguarding the identities of sources to prevent potential harm from information disclosure.

By merging technology with social interaction, media provides farmers and rural businesses with a voice and facilitates valuable networking opportunities, enabling continuous two-way communication. However, media can also contribute to reinforcing stereotypes and promoting negative perceptions of individuals or communities. Therefore, it is essential to harness media as a tool for spreading awareness and fostering a better understanding of human activities while advocating for socially responsible journalism.

The media plays a fundamental role in shaping public opinion and deepening understanding of human affairs. Responsible journalism ensures that information is conveyed accurately while protecting individuals from potential harm due to information disclosure. Traditional media, with its familiar format, relevant content, and use of local languages, enhances clarity in communication. Moreover, it expands the reach of traditional knowledge-sharing practices, making information more accessible to rural communities. For media to be effectively utilized in knowledge management for rural populations, fostering a positive attitude toward its use is essential. This requires greater awareness and targeted training programs to maximize its benefits.

2.2.1 Enhancing Agricultural Knowledge and Extension Services

One of the primary roles of media in agriculture is to complement traditional agricultural extension services by disseminating information to a large audience. Studies have shown that media platforms such as radio, television, newspapers, and digital media provide a cost-effective way to reach farmers who may have limited access to extension officers due to funding and infrastructural constraints (Okwu and Kuku, 2019). Radio, in particular, has proven to be an effective tool for disseminating agricultural information in rural communities. It provides timely updates on weather patterns, market prices, government policies, and improved farming techniques, enabling farmers to make informed decisions (Akpan, 2020). Television, on the other hand, offers visual demonstrations of agricultural techniques, allowing farmers to see

and understand complex processes such as improved seed planting, irrigation methods, and disease control (Adekunle and Oloruntoba, 2021).

2.2.2 Promoting Adoption of Modern Farming Practices

The adoption of modern agricultural technologies is critical for improving productivity and sustainability. Media platforms play a significant role in influencing farmers' attitudes and encouraging them to adopt new innovations (Danso-Abbeam *et al.,* 2018). For example, agricultural programs on radio and television often feature expert interviews, success stories from other farmers, and step-by-step guides on new farming techniques, which help build trust and encourage adoption.

A study conducted in Ghana by Owusu and Abebe (2020) found that farmers who regularly listened to agricultural radio programs were 40% more likely to adopt improved maize farming techniques than those who did not. Similarly, a survey by Yusuf *et al.* (2019) in Nigeria showed that visual demonstrations on television significantly influenced farmers' decisions to use hybrid maize seeds and organic fertilizers.

2.2.3 Facilitating Market Access and Price Awareness

Media plays a crucial role in keeping farmers informed about market prices, enabling them to sell their produce at competitive rates. Many rural farmers suffer losses due to lack of market information, which makes them vulnerable to exploitation by middlemen.

Agricultural radio programs often provide updates on commodity prices in different markets, allowing farmers to make better sales decisions (Ojekunle and Ojo, 2019).

Mobile-based agricultural media, such as SMS alerts and mobile apps, are also gaining popularity in providing real-time market information. Platforms like Farm Radio International in Africa have successfully integrated radio with mobile phones to provide farmers with direct access to price information, reducing dependency on intermediaries (Eboh, 2017).

2.2.4 Strengthening Resilience to Climate Change

Climate change poses a significant threat to agricultural productivity, making timely access to weather forecasts and climate-smart agricultural techniques essential. Media channels help disseminate climate-related information, including early warnings for droughts, floods, and pest infestations (Ibrahim and Yusuf, 2022). For instance, in Kenya, community radio stations have been instrumental in informing farmers about changing weather patterns, helping them adjust their planting schedules accordingly (Adesope and Matthews, 2020). Similarly, television programs featuring climate experts provide insights on adaptive farming practices, such as conservation agriculture and water management strategies, which enhance farmers' resilience.

2.2.5 Bridging the Knowledge Gap between Rural and Urban Farmers

Media serves as an equalizer by ensuring that rural farmers have access to the same agricultural knowledge as their urban counterparts. This is particularly important in addressing the knowledge gap that often exists due to differences in literacy levels, infrastructure, and exposure to modern technology (Tichenor, *et al.,* 1970). Community radio stations that broadcast in local languages play a significant role in making agricultural information accessible to illiterate farmers. Research by Ifeoma and Nwachukwu (2019) found that farmers who received agricultural information in their native languages were more likely to understand and apply the knowledge compared to those who received it in English.

2.2.6 Policy Advocacy and Farmer Empowerment

Media also plays a vital role in policy advocacy by amplifying farmers' voices and highlighting issues affecting the agricultural sector. Through investigative journalism, media exposes challenges such as poor access to credit, unfair trade practices, and the impact of government policies on farmers (Odeyemi and Olaoye, 2018).

In Nigeria, agricultural television programs such as Farm Matters and Agriculture Today have been instrumental in bringing farmers' concerns to policymakers. Similarly, radio call-in programs allow farmers to directly engage with experts and government officials, ensuring that their needs are considered in policy decisions (Onu, 2020).

2.3 Theoretical Framework

Journalists have a crucial responsibility to critically assess, analyze, and report on the significance of development projects in relation to national and local needs. This includes examining discrepancies between planned initiatives and their actual implementation, as well as comparing the government's claims about a project's impact with the real experiences of the people affected.

Development journalism, therefore, goes beyond merely reporting events; it focuses on ongoing processes rather than isolated incidents and prioritizes issues over individual personalities. Its goal is to provide an in-depth understanding of development efforts, ensuring transparency and accountability while highlighting the real challenges and outcomes faced by communities.

The theoretical framework provides the foundation for understanding the effectiveness of broadcast media in disseminating agricultural information to maize farmers in Ovia North-East Local Government Area (LGA). Several communication and diffusion theories help explain how media influences farmers' decision-making, knowledge acquisition, and adoption of improved farming practices. There are three major theories relevant to this study: Diffusion of Innovations Theory, Uses and Gratifications Theory, and the Knowledge Gap Hypothesis.

2.3.1 Diffusion of Innovations Theory

The Diffusion of Innovations (DOI) Theory, developed by Everett Rogers (2003), explains how new ideas, practices, and technologies spread within a community over time. The DOI theory is important in understanding how broadcast media (radio and television) influence the adoption of new agricultural techniques among maize farmers. It helps explain why some farmers quickly adopt modern practices while others remain resistant. If broadcast media effectively communicate the benefits of an innovation and address potential concerns, the adoption rate increases. However, factors like illiteracy, misinformation, and lack of access to extension services can slow down adoption.

Several studies support the DOI theory's application in agricultural communication. For example, Danso-Abbeam *et al.* (2018) found that radio programs significantly influenced farmers' decisions to adopt improved maize farming techniques in Ghana. Similarly, Ibrahim and Yusuf (2022) reported that farmers who regularly watched agricultural television programs had higher adoption rates of mechanized farming methods. The theory identifies five key elements that influence the diffusion process:

1. **Innovation –** The new idea or practice being introduced (e.g., improved maize varieties, pest control methods, or climate-smart agriculture).
2. **Communication Channels –** The medium through which the innovation is communicated (e.g., radio, television, extension services).
3. **Time –** The period it takes for the innovation to spread among farmers.
4. **Social System –** The group of individuals (farmers) who adopt or reject the innovation based on cultural, economic, and social factors.

5. **Adoption Process –** The stages through which individuals pass before fully accepting an innovation:

- **Knowledge –** Awareness of the new practice (e.g., hearing about improved seeds on the radio).
- **Persuasion –** Interest and evaluation of its potential benefits.
- **Decision –** Acceptance or rejection of the new practice.
- **Implementation –** Actual application of the practice in farming.
- **Confirmation –** Continued adoption based on observed benefits.

2.3.2 Uses and Gratifications Theory

The Uses and Gratifications (U&G) Theory, proposed by Katz, Blumler, and Gurevitch (1973), focuses on how individuals actively seek out media based on their needs and motivations. Unlike traditional mass communication theories that view audiences as passive recipients, U&G theory sees them as active participants who selectively use media for specific purposes.

The U&G theory helps explain the media consumption patterns of maize farmers in Ovia North-East LGA. It helps to investigate farmers motivation to tuning in to agricultural radio and TV programs, how often they seek agricultural information and what media format (radio talk shows, television demonstrations, online and physical news bulletins) is preferred media and why.

A study by Yusuf *et al.* (2019) found that 65% of maize farmers in Nigeria actively sought agricultural information from radio broadcasts, particularly during peak farming seasons. Additionally, Okwu and Kuku (2019) observed that interactive agricultural radio programs where farmers could call in and ask questions had higher engagement levels than traditional lecture-style programs.

Thus, understanding farmers' media preferences can help in designing more effective agricultural communication strategies. If farmers prefer interactive programs, for example, radio stations can introduce more call-in segments or Q&A sessions with agricultural experts.

The theory identifies several reasons why people engage with media, including:

1. **Information Seeking –** Farmers use broadcast media to obtain knowledge on farming techniques, weather patterns, and market prices.
2. **Entertainment –** Some agricultural programs combine education with entertainment (edutainment), making learning more engaging.
3. **Social Interaction –** Farmers discuss agricultural topics they hear on the radio or watch on television with peers, reinforcing learning.
4. **Personal Identity –** Some farmers relate to the success stories of other farmers featured on television, motivating them to adopt new techniques.

2.3.3 The Knowledge Gap Hypothesis

The Knowledge Gap Hypothesis, introduced by Tichenor, Donohue, and Olien (1970), suggests that as mass media information increases, the gap between those who have access to knowledge and those who do not also widens. This happens because people with higher socio-economic status, better education, and more resources tend to acquire and process new information more effectively than those with lower education and limited media access. This theory is particularly important in examining whether broadcast media benefits all farmers equally or if certain groups (e.g., educated farmers or wealthier ones) benefit more than others. Studies have shown that illiterate and low-income farmers often face challenges in accessing and utilizing agricultural information, leading to slower adoption of improved techniques. For instance, Ifeoma and Nwachukwu (2019) found that in rural Nigeria, farmers with higher education levels were more likely to comprehend and adopt agricultural advice from television programs. Similarly, Adesope and Matthews (2020) reported that limited electricity and poor signal reception hindered many rural farmers from accessing television broadcasts, widening the knowledge gap. Some key factors influencing the knowledge Gap:

1. **Education Level –** Literate farmers are more likely to understand and apply agricultural information from media sources.
2. **Media Access –** Farmers with access to multiple media platforms (radio, television, internet) benefit more than those relying on just one.

3. **Economic Status –** Wealthier farmers can afford modern technology (e.g., tractors, irrigation systems) promoted through media, while poorer farmers may struggle to implement recommendations.
4. **Language Barriers –** Information presented in foreign or complex language may not be fully understood by rural farmers.

2.4 The Role of Broadcast Media in Agricultural Extension

Agricultural extension plays a huge role in improving productivity, ensuring food security, and enhancing the livelihoods of farmers. Traditionally, extension services have relied on face-to-face interactions between extension officers and farmers. However, due to limitations such as inadequate extension staff, poor infrastructure, and financial constraints, broadcast media (radio and television) has become an essential tool for reaching a larger farming population with timely and relevant agricultural information (Odeyemi and Olaoye, 2018).

Broadcast media helps bridge the gap between researchers, policymakers, and farmers by providing accessible, timely, and cost-effective agricultural information.

2.4.1 Enhancing Agricultural Knowledge and Technology Adoption

One of the most significant contributions of broadcast media in agricultural extension is the dissemination of knowledge and the promotion of improved farming techniques. Farmers need constant updates on new crop varieties, pest and disease management,

fertilizer application, irrigation methods, and climate-smart agriculture. Through broadcast media, agricultural experts can reach a large audience at minimal cost, significantly influencing farming practices (Akpan, 2020).

2.4.1.1 Radio as an Agricultural Extension Tool

Radio is the most widely used mass communication tool for rural farmers due to its affordability, accessibility, and ability to broadcast information in local languages. Studies show that over 70% of smallholder farmers in Nigeria depend on radio for agricultural information (Yusuf *et al.,* 2019). A study by Okwu and Kuku (2019) found that farmers who regularly listened to agricultural radio programs were 35% more likely to adopt improved maize farming techniques compared to those who relied on traditional extension services. Similarly, Danso-Abbeam *et al.* (2018) reported that in Ghana, farmers who tuned in to radio agricultural programs were more likely to apply modern farming techniques and climate adaptation strategies.

Some advantages of radio include:

- **Low cost and portability –** Farmers can listen to agricultural programs even while working on their farms.
- **Wide reach –** Radio signals can cover large geographical areas, including remote villages.
- **Local language broadcasting –** Many community radio stations provide programs in local dialects, making information more understandable.

Despite its benefits, radio has some limitations, such as lack of visuals, poor signal coverage in some areas, and limited audience interaction. To enhance its effectiveness, interactive programs with live call-in segments where farmers can ask questions and get expert advice are recommended (Ibrahim and Yusuf, 2022).

2.4.1.2 Television as an Agricultural Extension Tool

Unlike radio, television provides visual demonstrations, making it more effective for teaching complex farming techniques. Seeing step-by-step procedures on fertilizer application, irrigation systems, and pest control enhances farmers' understanding and ability to replicate these practices.

Studies show that farmers who watch agricultural television programs are more likely to adopt improved farming techniques than those who only listen to radio broadcasts (Adekunle and Oloruntoba, 2021). Television is particularly used in demonstrating best agricultural practices through video tutorials, showcasing success stories of farmers who have adopted new technologies and providing expert panel discussions on current agricultural challenges and solutions.

A study by Adesope and Matthews (2020) in rural Nigeria found that farmers who regularly watched agricultural television programs showed a 42% increase in yield compared to those who relied solely on radio or extension officers. However, limited access to electricity and the high cost of TV sets in rural areas remain significant

barriers. Community viewing centers and solar-powered TVs have been proposed as solutions to improve television access in farming communities (Eboh, 2017).

2.4.2 Providing Weather Forecasts and Climate Change Adaptation Strategies

With the increasing impact of climate change on agriculture, timely access to weather forecasts and climate adaptation strategies is crucial for farmers. Broadcast media helps farmers plan their planting and harvesting schedules by providing updates on rainfall patterns, drought warnings, pest and disease outbreaks, and soil moisture conditions. For instance, a study by Owusu and Abebe (2020) in Ghana found that farmers who received climate information via radio and television were 50% more likely to adopt climate-smart agriculture techniques such as conservation tillage and drought-resistant crops.

In Kenya, community radio stations have been instrumental in providing early warnings about droughts and floods, allowing farmers to take precautionary measures (Ibrahim and Yusuf, 2022). Integrating broadcast media with mobile phone alerts further enhances its impact – ensuring farmers receive critical weather updates in real time.

2.4.3 Improving Market Access and Price Awareness

Another essential role of broadcast media in agricultural extension is helping farmers access market information, reducing dependency on middlemen and improving their bargaining power. Many rural farmers suffer financial losses due to lack of real-time

knowledge of commodity prices, demand trends, and transportation costs. Agricultural radio programs often provide daily market prices of agricultural products in different locations, information on export opportunities for surplus production and advice on financial management and agricultural loans.

According to Ojekunle and Ojo (2019), radio-based agricultural market programs in Nigeria increased farmers' profits by 30%, as they could make informed selling decisions rather than being exploited by traders. Similarly, Tichenor, Donohue, and Olien (1970) argue that access to economic information helps bridge the knowledge gap between rural and urban farmers, enabling better financial planning.

2.4.4 Bridging the Knowledge and Literacy Gap

One of the challenges in traditional agricultural extension services is the knowledge gap between literate and illiterate farmers. Broadcast media plays a crucial role in simplifying agricultural knowledge and delivering it in an accessible manner. This is particularly important for illiterate farmers who may not be able to read extension manuals, women farmers who often have less access to formal education, and remote farming communities where printed materials may not reach.

Ifeoma and Nwachukwu (2019) found that farmers who received agricultural information via radio in local dialects had a higher comprehension rate (76%) compared to those who received information in English. This supports the importance of local-language broadcasting in improving agricultural literacy.

2.4.5 Strengthening Farmer Participation and Policy Advocacy

Broadcast media also serves as a platform for farmers to voice their concerns, participate in policy discussions, and demand support from the government. According to Onu (2020), radio and television call-in programs have provided farmers with a direct line of communication with policymakers, leading to better policy responsiveness. Programs such as Farm Matters and Agric Today in Nigeria have successfully influenced agricultural policy discussions at the national level. Investigative journalism and farmer interviews help highlight:

- Challenges in accessing fertilizers, seeds, and credit.
- Issues related to poor rural infrastructure and post-harvest losses.
- Government programs and policies affecting smallholder farmers.

2.5 Sources of Agricultural information

Information is a critical resource for rural development, playing a vital role in enabling farmers to make informed decisions and take appropriate actions related to organic farming and agricultural marketing (Carter, 1999; Morrow *et al.,* 2002; Stefano *et al.,* 2005). In the contemporary era of information and technology, the dissemination of agricultural knowledge has become both more accessible and increasingly complex. Therefore, it is essential that information is conveyed through appropriate methods that best support the intended recipients (Cartmell *et al.,* 2004). Research suggests that individuals seek information from different sources depending on the nature of the

information required (Pounds, 1985). However, factors such as low literacy levels, advanced age, and small farm sizes can limit access to agricultural information, leading to the isolation of farmers (Abbott and Martinez, 1986). The key challenges in agricultural technology transfer include identifying suitable and available technologies and determining the most effective means of disseminating them to farmers (FFTC, 2006).

Agricultural information significantly influences production in multiple ways. Firstly, it aids farmers in making informed choices regarding land use, labor, capital investment, management, and livestock. Secondly, the availability of relevant, reliable, and practical information has the potential to enhance agricultural productivity (Demiryurek *et al.,* 2008). However, Nakabugu (2001) noted that farmers often fail to utilize information on improved farming techniques and marketing either because they do not fully understand it or because the information does not reach them. She further emphasized that cultural and linguistic differences between researchers and farmers often exacerbate this communication gap. When selecting methods for disseminating agricultural knowledge, extension services and agricultural educators must consider the type of information to be shared, farmers' preferences for receiving information from different sources, and the capacity of information sources to effectively deliver content (Ngathou *et al.,* 2006).

Information in agriculture can be transmitted through various channels, including oral communication, printed materials, and electronic media (Stefano *et al.,* 2005). According to Iqbal (1993) and Rana (2002), information sources can be categorized into

two main types: personal and impersonal sources. Interpersonal communication involves direct, face-to-face exchanges, while mass media sources function as impersonal channels that enable a single sender to reach a broad audience. Research indicates that farmers are more likely to obtain agricultural information through informal channels than formal ones (Simpson, 1994). Riesenberg and Gor (1989) identified multiple information dissemination methods in agriculture, including workshops, group discussions, guest speakers, on-farm demonstrations, field visits, audiovisual aids, interactive telecommunications, and printed materials. Similarly, Adesope *et al.* (2007) reported that agricultural information is disseminated through television, radio, newspapers, bulletins, and pamphlets.

Dampney *et al.* (2000) examined various methods used for providing farmers and agricultural advisors with improved recommendations. These included technical information for consultants, face-to-face discussions, computer-based fertilizer recommendation systems, recommendation books, booklets for farmers, farming press articles and demonstrations. In a study on agricultural communication effectiveness, Munir (1991) found that result demonstrations, farm visits, and field days were regarded as highly effective, while general meetings, lectures, method demonstrations, and radio programs were considered moderately effective. However, newspapers, television, and pamphlets were perceived as ineffective by a significant majority of respondents.

Several studies have highlighted fellow farmers as a primary source of agricultural information (Hanif, 1992; Akthar, 1997b; Nazim, 2000; Irfan, 2005; Irfan *et al.,* 2006).

Iqbal (1993) found that farmers frequently relied on peer networks, printed sales materials, fact sheets, newsletters, magazines, bulletins, and farm organizations for agricultural knowledge. In an Indian context, Vimala *et al.* (2005) observed that 85.00% of farmers relied on fellow farmers for information, followed by newspapers (61.76%), television (5.88%), and radio (5.88%) for updates on shrimp farming practices. Similarly, Edeoghon *et al.* (2008) reported that farmers seeking information on sustainable agricultural practices primarily turned to other farmers, friends and relatives, radio, and extension agents.

In Nigeria, Ofuoku *et al.* (2008) found that 86.00% of rural fish farmers obtained information through farmers' groups, 70.00% from fellow farmers, and 70.00% from NGOs, while only 45.00% received information from extension agents. They further noted that extension agents typically interacted with select group members, who then shared the information with others absent from meetings. A small fraction (10.00%) of fish farmers accessed information through research institutes.

Malik (2000) identified fellow farmers, radio, television, and shopkeepers as primary sources of agricultural information. However, farmers expressed only partial satisfaction with mass media as an information source. Nearly half (48.50%) of respondents found mass media somewhat useful, while only 17.50% considered it highly effective in improving agricultural productivity.

Opera (2008) found that 88.10% of farmers considered extension agents their primary source of information, followed by fellow farmers (71.20%), radio (63.20%), and television (43.30%). The majority (70.00%) preferred extension agents over other sources such as radio, friends, and television. Butt (2002) similarly reported that 61.60% of farmers accessed information through extension organizations, 51.20% from fellow farmers, 46.00% from print media, and 36.00% from research organizations. In contrast, radio was the second least utilized source (9.60%), and pesticide agencies played an almost negligible role in agricultural information dissemination.

These findings underscore the diverse range of information sources used in agricultural communication. While mass media plays a role in information dissemination, interpersonal sources such as fellow farmers, extension agents, and farmers' groups continue to be the most influential channels for agricultural knowledge transfer.

2.6 Comparative Studies on Farmer's Preference to Agricultural information sources

Recognizing farmers' preferences for acquiring information on innovative farming practices is essential for program planners to ensure effective dissemination (Rollins and Golden, 1994; Opera, 2008). Miller and Cox (2006) examined the preferred methods of technology transfer among agricultural producers and researchers. Their findings indicated that researchers favored field days and workshops as primary methods, with handouts and periodicals serving as secondary channels.

However, variations existed among producers from different regions. Farmers in Hawaii preferred obtaining information through peers, on-farm trials, and agricultural professionals, followed by print media such as newspapers, newsletters, books, and magazines. California producers similarly emphasized the role of peer networks, professionals, and publications in technology transfer. In Oregon, field days, workshops, and demonstration events were considered vital sources of agricultural information, whereas orchardists in Washington valued horticultural professionals and field representatives as the most reliable sources. Notably, in all these states, the internet ranked lowest in significance as a method of technology transfer.

Cartmell *et al.* (2006) found that the most commonly preferred method of receiving agricultural information was direct mail, with 53% of respondents indicating this preference, followed by magazines, television, internet, newspapers, technical publications, radio, and workshops. Their study further revealed that farmers over the age of 70 predominantly relied on television and direct mail, whereas younger and more educated farmers preferred direct mail as their primary source.

Egbule and Njoku (2001) reported that nearly half (50%) of farmers identified television as their preferred source of information, followed by radio (38.31%) and newspapers (12.32%). These findings align with those of the FFTC (1999), which concluded that Vietnamese farmers favored mass media sources, particularly television and radio, over newspapers. However, Clifford and William (2007) presented contrasting results, showing that the majority of farmers preferred printed newsletters

and publications for acquiring information on assistive technology. Meanwhile, most AgrAbility staff favored internet-based publications, email, and printed materials as their primary sources of information. Additionally, over one-third of farmers reported that accessing information on assistive technology had become easier than in the past.

Similarly, Howell and Habron (2004), in their study on agricultural landowners' preference for internet-based extension services, found that approximately three-quarters of respondents favored written materials such as fact sheets, printed bulletins, and newsletters for learning about watershed conservation. Slightly more than half preferred in-person methods, including home visits, resource office visits, university consultations, demonstration tours, farm meetings, field days, and workshops. Thirty-nine percent indicated a preference for media sources such as radio, television, videotapes, and newspapers, whereas only one-fourth favored computer-based sources such as websites, software packages, and email.

Ngathou *et al.* (2006) studied information preferences among limited-resource farmers in North Alabama, finding that printed materials—including magazines, newsletters, and fact sheets—were the most significant sources of information. Other notable sources included face-to-face interactions with fellow farmers, risk management associations or marketing clubs, risk management experts, books, the internet, and radio/television programs. Their research emphasized that improving access to practical printed materials was one of the most effective ways to assist limited-resource farmers in managing agricultural risks.

Further supporting these findings, Riesenberg and Gor (1989) observed that younger, more educated farmers, as well as those with larger landholdings, demonstrated a stronger preference for publications, computer-assisted methods, and home study courses compared to older, less-educated farmers with smaller farms. In Nigeria, low literacy rates in rural areas contributed to reduced reliance on written sources of information. Among literate farmers, 22.2% of males and 19.2% of females used agricultural journals, while 11.1% of males and 5.5% of females accessed information through libraries. Additionally, one-third of males and one-fourth of females preferred radio, while 26.4% of males and 30.1% of females relied on television. Furthermore, 31.9% of males and 28.8% of females turned to extension field services (EFS), while 52.8% of males and 23.3% of females relied on fellow farmers as their primary information source (Adomi *et al.,* 2003).

Nwankwo (2006) examined farmers' preferences for different educational methods, finding that they favored individualized learning approaches over other instructional methods. A study conducted in Bharatpur, India, by Dangi *et al*. (2004) revealed that farmers' information sources varied based on their level of training. Trained farmers seeking technical knowledge on mustard cultivation prioritized personal localite sources (e.g., fellow farmers and local experts), followed by personal cosmopolite sources (external experts), impersonal cosmopolite sources (media), and commercial agencies. In contrast, untrained farmers relied first on personal localite sources, followed by personal cosmopolite sources, commercial agencies, and impersonal cosmopolite

sources. While newspapers, television, and radio were common sources for both groups, film screenings were the least preferred source among trained farmers, whereas untrained farmers found farm literature to be the least useful source of information.

Overall, the findings indicate that farmers' preferences for receiving agricultural information vary significantly based on factors such as age, literacy level, education, farming experience, and geographic location. While personal interactions with fellow farmers and agricultural professionals remain dominant sources, printed materials, mass media, and digital sources play varying roles in information dissemination across different demographics.

2.7 Challenges and Recommendations in Media Communication Strategies for Maize Farmers

Despite the numerous benefits of media communication strategies in disseminating agricultural information to maize farmers, several challenges hinder their effectiveness. These challenges vary based on accessibility, infrastructure, literacy levels, interactivity, and affordability. Addressing these limitations requires targeted interventions by governments, NGOs, and agricultural extension services as well as integrating broadcast media with interactive platforms like mobile phones and social media can enhance engagement and effectiveness (Adekunle and Oloruntoba, 2021).

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Area and Scope of the Study

The study was conducted in Ovia North-East Local Government area of Edo State. Edo State is bounded in the North and East by Kogi State, in the South by Delta State and in the West by Ondo State. It lies within the geographical coordinates' longitude 06°04 East and 06°43'East and latitude 05°44 North of the Greenwich. It occupies a total land area of 17,802km. The total population of the area is 3,233,366. The state has a tropical climate characterized by two distinct seasons with average minimum and maximum temperature of about 25°c and 35°c respectively.

Ovia North-East is a local government in Edo State. It had an area of 2,301 km2 and a population of 153,849 at the 2006 census. The major communities in the LGA are Okada, Uhen, Utese, Okokhuo, Uhiere, Isiuwa, Ekiadolor, Oluku, Iguoshodin, Utoka, Oghede; Egbeta, Ora and Ogbese. (Wikipedia, 2021)

3.2 Sampling Procedures and Size

A multi-stage sampling procedure was used for this study.

Stage 1: This involved the use of purposive sampling procedures to select 5 communities in Ovia North-East (Okada, Uhiere, Ugbokun, Utese and Uronigbe) based on their dominance of maize farming in the communities.

Stage 2: A simple random sampling was used to select 30 maize farmers from each of the communities making 150 respondents. The sample size is therefore 150 as shown in

Table 1: Proposed sample size

S/N	Name of the community	Population size	Sample size
1	Okada	1500	30
2	Uhiere	1400	30
3	Ugbokun	1250	30
4	Utese	1100	30
5	Uronigbe	930	30
Total		**6180**	**150**

3.3 Data Collection

The study used both primary and secondary data. The primary data was collected from maize farmers with the help of a questionnaire while the secondary data was obtained from relevant literature, textbooks, agricultural journals, periodicals, bulletins and the internet.

3.4 Validation of Instrument

The questionnaire was thoroughly scrutinized and validated by lecturers in the department of Agricultural Economics and Extension Services to ensure accurate capture of required variables, as well as to prevent errors in the data collection process.

3.5 Measurement of Variables

3.5.1 Socioeconomic Characteristics

1. **Age:** The age of the respondents were measured in years.
2. **Sex:** This was measured at nominal level using options of female (1), and male (2).
3. **Marital status:** This was measured at the nominal level using the options of single (1), married (2).
4. **Household size:** Respondents were asked to indicate their household size using numerical values.
5. **Years of experience:** This was measured at interval in years
6. **Level of Education:** Respondents were asked to indicate their level of education. This was measured with the options of non-formal education (1), formal education (2)
7. **Religion:** This was measured with the options of Christian (1), Muslim (2), Others (3).
8. **Access to Electricity:** Respondents were asked to indicate Yes (1), or No (2).
9. **Sources of information about maize farming:** Respondents were asked to specify
10. **Effectiveness of broadcasting media:** Respondents were asked to indicate how effective these broadcasting media sources are using a Likert 5-point rating scale of Not effective, Slightly Effective, Moderately Effective, Very Effective,

Extremely Effective. A mean score of 3.0 and above was taken to mean the respondents find broadcasting media effective and a mean of less than 3.0 will be taken to mean that broadcasting media are not effective to maize farming.

11. **Access to broadcast media:** Various broadcast media was listed and respondents were asked to indicate Yes (1), or No (0) if they have access to it.
12. **Frequency**: Respondents were asked to indicate how often they use broadcasting media sources and it was coded using a Likert 5-point rating scale of Always = 5, Often = 4, Sometimes = 3, Rarely = 2, Never = 1
13. **Constraints faced by farmers in accessing information from broadcast media:** This was measured using a list of various constraints with a Likert 5-point rating scale of Very Serious = 5, Serious = 4, Undecided = 3, Not serious = 2 Not a problem = 1. A mean score of 3.0 and above was taken to mean the respondents encounter significant constraints in accessing agricultural information and a mean of less than 3.0 will be taken to mean that less constraints occur in accessing agricultural information.

3.6 Analytical Techniques

Objective One: The socioeconomic characteristics of the respondents were described using descriptive statistics such as frequency count, percentages.

Objective Two: This was analyzed using mean score.

Objective Three: This was analyzed using mean score.

Objective Four: This was analyzed using mean score.

Objective Five: This was analyzed using a mean score.

3.7 Test of hypotheses

There is no significant relationship between selected socio-economic characteristics of maize farmers and effectiveness of broadcasting media used in the study area. This was analyzed with the use of multiple regression model specify thus.

The multiple regression is implicitly given as:

$$Y = \beta_1 \times_1 + \beta_2 \times_2 + \beta_3 \times_3 + \beta_4 \times_4 + \beta_5 \times_5 + \beta_6 \times_6 + \times_n$$

Where:

Y = Effectiveness of broadcasting media

X_1= Age

X_2 = Experience in maize

X_3 = Average Farm size

X_4 = Estimated income

X_5 = Level of education

X_6 = Sources of electricity.

There is no significant relationship between the socio-economic characteristics of maize farmers and their accessibility to broadcasting media in the study area. This was

achieved by testing the t-values generated from the Logit regression analysis of the socio-economic variables (X_1-X_6) and accessibility to broadcasting media in the study area.

The Logit regression is implicitly given as:

$$P(Y=1/X_1) = Ln[Yi/(1Yi)]=\alpha + \beta_1X_1+\ldots+\beta_nX_n+\mu$$

Where:

Ln = Natural log

P(Y=1/Xi) = Probability of Y occurring, given that X_1-X_n have occurred

α = coefficient of the constant term

β1-βn = Coefficient of the independent variables

$X_1 – X_n$ = The independent variables (socioeconomic characteristics to be measured)

μ = Error term or residual

The mathematical expression of the model is explicitly specified as:

$$Y = \beta_1\times_1 + \beta_2\times_2 + \beta_3\times_3 + \beta_4\times_4 + \beta_5\times_5 + \beta_6\times_6 + \times_n$$

Where:

Y = Access to broadcasting media

X_1= Age (years)

X_2 = Education level

X_3 = Average Farm size

X_4 = Annual income level (N)

X_5 = availability of broadcast device

X_6 = Sources of electricity

μ = Error term

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

This chapter presents the results and discussions from the analysis of the data obtained on the variables involved in the study. From a total of 150 copies of questionnaire administrated on the field, which were found to be useful for analysis and were used for this discussion.

4.1 Socio-Economic characteristics of the Respondents

4.1.1 Sex

The result on Table 4.1 indicates that 49.3% of the respondents were male while 50.7% were female. This is an indication that maize farming does not depend on gender as it is widely done by both men and women in the study area. This gives an impression that maize farming can accommodate any gender. This finding confirm the opinion of Ogundipe (2020) who revealed that 55.6% of maize farmers in Nigeria are women

4.1.2 Age

On age distribution of respondents, 32.2%, is between 40-59, indicating a focus on middle-aged individuals. The 30-39 age group represents 16.4% while those aged 60 and above make up 13.8%. Only 5.3% are under 30. The mean age of farmers stood at 47.88 years, suggesting that most of the farmers were still in their active years. This

finding confirmed the opinion of Ojo (2020) who found that 51.9% of maize farmers in Osun State were between 40-59 years old. In line with the above, Adeyemi (2019) revealed that the mean age of maize farmers in Kwara State was 48.5 years

4.1.3 Marital Status

From the result in table 4.1, majority (59.9%) of the maize farmers were married, 21.1% were separated, 8.6% were divorced, 5.9 were single, while 4.6% widowed. Married people tend to have more household responsibilities than single people, thus pushing them to be more productive in their ventures in order to meet up with the demands of family life (Onyekuru et al., 2019). This result corroborates with the finding of Adeyemi (2019) who reported that most (75.6%) married persons were involved in maize farming. This could be attributed to the need for an extra income to meet family expenses and the advantage of utilizing family labour to carry out activities required.

4.1.4 Education Level

Table 4.1 revealed that nearly all (96.7%) of maize farmers had formal education at various levels while 3.3% had no formal education. This implies that the level of literacy among maize farmers was high which may help in the effectiveness of broadcasting media in the study area. High educational status of farmers will also enable them acquire knowledge and skills required for saving, budgeting and adoption of innovations and resources usage (Oke *et al.,* 2021).This research confirms with the

finding of Abduleleem (2020), who noted that a greater percentage (62.5%) of maize farmers in Oyo state had secondary education.

4.1.5 Experience in Maize Farming

This shows that only 5.3% of respondents have less than 5 years of experience, which is the lowest proportion compared to 38.8% with 5 to 9 years and 32.2% with 15 years or more. Similar studies by Oluwatusin (2019) found that 55.6% of maize farmers in Osun State had 5-15 years of experience, and that years of experience is positively correlated with maize production. Farming experience is very important as it provides the farmer with efficient information about the business.

4.1.6 Major occupation

Table 4.1 also shows the major occupation of the respondents. Nearly half (46.1%) of the farmers are civil servants while 11.8% engaged in farming, 15.1% engaged in marketing and 27.0% engaged in farming and marketing. This findings disagree with Adeyemi (2019), where majority (85.7%) of maize farmers in Kwara State were full time farmers. Some of the reasons why nearly half of the respondents were civil servants was due to steady and regular income they got from their jobs which they use for sustainability during off seasons and also since respondents were from rural background, farming remains an important part of their livelihood.

4.1.7 Household Size

The distribution of household size as shown in Table 4.1 revealed that 61.8% of maize farmers had 5-9 household size with mean of 6.34, while 29.6% were had less than 5 and 8.6% had 10 and above household size. The result of the household size revealed that the farmers may not require the services of hired labour, if household members engage in the production process. This is supported by Abdulaleem (2020) who reported that majority (51.9%) of maize farmers had 5-9 household size.

4.1.8 Access to Electricity

Table 4.1 revealed that majority (96.7%) of the maize farmers had access to electricity while 3.3% didn't have access to electricity. This disagrees with the findings of Oluwatunsin (2019) who found that 60.7% of maize farmers in Osun state relied on generators as their primary source of electricity. Most households have electricity, which means broadcast media can work well to share information. This is good news because it helps to reach many people.

4.1.9 Sources of information

Table 4.1 also shows that maize farmers got their information on maize farming majorly (33.6%) from other farmers, while 32.2% from electronic medias, 13.8% from ADP, 11.8% from cooperatives and 8.6% from Newspaper. Information is crucial for maize farmers as it helps them improve yields, manage pests, and make informed decisions on

inputs and market prices. Access to reliable information boosts productivity, reduces losses, and increases profitability. This supports the findings of Adeyemi (2019) who reported that 71.4% of maize farmers in Kwara State relied on fellow farmers as their primary source of information.

Table 2: Socio-economic characteristics

Sex of respondent	Freq.	%	Mean	Std. Dev.
Male	75	49.3		
Female	77	50.7		
Age of respondent (in years)				
≤30	8	5.3		
30 – 39	25	16.4		
40 – 49	49	32.2	47.52	10.46
50 – 59	49	32.2		
60 years and above	21	13.8		
Marital Status				
Single	9	5.9		
Married	91	59.9		
Separated	32	21.1		
Divorced	13	8.6		
Widowed	7	4.6		
Level of Education				
No formal Education	5	3.3		
Primary Education	11	7.2		
Secondary Education	48	31.6		
Tertiary	88	57.9		
Experience in maize farming				
≤5	8	5.3		
5 – 9	36	23.7	13.50	7.71
10 – 14	59	38.8		
15 years and above	49	32.2		
Major occupation				
Farming	18	11.8		
Marketing	23	15.1		
Farming and marketing	41	27		
Civil service	70	46.1		
Household size				
≤5	45	29.6		
05-9	94	61.8	6.34	3.42
10 and above	13	8.6		
Access to electricity	147	96.7		
Sources of information about maize farming				
Sources of information about maize farming				
ADP	21	13.8		
Cooperative	18	11.8		
Other farmers	51	33.6		
Electronic media	49	32.2		
Newspaper	13	8.6		

Source: Field Survey, 2025.

4.2 Available and Accessible Broadcasting Media

Among all the identified broadcasting media listed in Table 2, radio ($\bar{x}$= 3.38 and $\bar{x}$ = 3.52), television ($\bar{x}$ = 3.55 and 3.46), newspapers ($\bar{x}$= 3.46 and 3.34), magazines ($\bar{x}$ = 3.35 and 3.20), websites ($\bar{x}$ = 3.21 and 3.29), and SMS ($\bar{x}$ = 3.27 and 3.42) were highly available and accessible respectively in the study area. These recorded high mean scores for both availability and accessibility, indicating widespread presence and ease of use among respondents. However, broadcast media such as podcasts ($\bar{x}$ = 1.33 and 1.13), satellite ($\bar{x}$ = 1.31 and 2.33), and webinars ($\bar{x}$ = 1.39 and 3.23) were not available. However, webinars and livestreams were accessible because the technology, such as smartphones that use platforms like YouTube and Facebook, is available. These broadcast media were not available because webinars are often restricted, or the events had already ended, leaving no live sessions to join.

Table 3: Available and accessible media

	Available		Accessible	
Broadcasting Media	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
Radio	3.38*	0.85	3.52*	0.99
Television	3.55*	0.99	3.46*	1.04
Newspaper	3.46*	1.05	3.34*	1.02
Magazine	3.35*	1.02	3.20*	1.02
Websites	3.21*	1.02	3.29*	0.89
Podcast	1.33	0.88	1.13	0.82
Mobile Cinemas	3.17*	0.83	1.23	0.87
SMS	3.27*	0.91	3.42*	0.95
Webinars	1.39	1.04	3.23*	0.86
Satellite	1.31	0.84	2.33	0.87
Livestreams	2.45	0.82	3.28*	0.89

*Mean ≥ 2.5 = Available and accessible.

Source: Field Survey, 2025.

4.3 Level of Availability

The results indicate that broadcasting media was readily available to majority of the farmers (61.9%) while a notable minority (38.1%) faces availability challenges of broadcast media. This suggests that broadcasting media is relatively available to maize farmers, but there is still room for improvement to increase availability for all farmers.

4.4 Level of Accessibility

The study found that 42.1% of maize farmers reported low accessibility to broadcasting media, while 57.9% indicated high accessibility. This suggests that a significant portion of maize farmers in the area have relatively easy access to broadcasting media, which can provide valuable information on farming practices, weather forecasts, and market prices. However, it is important to note that a considerable number of farmers still face challenges in accessing broadcasting media, which may limit their ability to obtain crucial information.

4.5 Perceived Benefits of Broadcasting Media to Maize Farmers

The data with benchmark mean of 3.0, the highest mean score, linking clients to the market (3.99) indicates that many respondents believe that radio and television programmes help them connect the potential buyers or market places, thereby improving their economic opportunities. Other prominent benefits such as exposing farmers to technical demonstration (3.90) underscore the role of broadcasting media in providing practical knowledge and timely solutions. Furthermore, ratings around 3.8 to

3.9 for raising awareness of new technologies, offering follow up support, facilitating access to credits and inputs, and helping with disease and pest management reflect a consistent view of broadcast media as a source of information and guidance. This is also in line with Adeyemi (2020) in assessing the impact of disease and pest management of maize productivity in Nigeria.

Table 4: Perceived benefits of broadcasting media to maize farmers

Perceived benefits	Mean	Std. Dev.
Broadcast media has help in linking clients to market	3.99*	1.00
Broadcast media has raises awareness about new technologies on maize	3.85*	0.98
It raises awareness about new programs on maize production	3.89*	0.91
It exposes farmers to technical demonstrations on certain maize farming	3.91*	0.95
It helps in diagnosis of problems and recommendations and solutions.	3.90*	1.01
Broadcast media utilization has help in responding to follow up questions	3.87*	0.95
It facilitates access to credits and inputs	3.86*	0.98
Information from broadcast media help farmers to conduct survey regarding maize production	3.83*	0.97
It helps in disease and pest management	3.89*	0.95
It has raises awareness about climate change in its impact on maize farming	3.81*	0.93
It has help to share success stories and case study from other maize farmers	3.84*	0.93
Information from broadcast media offers advice on post-harvest handling and storage of maize	3.82*	0.93
It helps in offering advice on soil management and fertilization for maize production	3.86*	0.99

*Mean ≥ 3.0 = High perceived benefits.

Source: Field Survey, 2025.

4.6 Effectiveness of Broadcast Media to Maize Farmers

Based on the result on Table 5, the respondents agreed with the effectiveness of broadcasting media having a mean above the benchmark ($\bar{x}$ = 3.0). From the findings, none of the listed broadcasting media was effective because they did not meet the aforementioned benchmark. Podcast (2.80) has higher percentage than any other platform because of its deep audience engagement, unlike social media ads or traditional ads, podcast keeps listeners engaged for extended periods. This allows for in depth discussions, storytelling, and brand messaging without distractions. Radio on the other hand with mean of 1.24, because information is aired at the wrong time and also due to limited audience engagement, declining popularity among younger audiences and many others. This does not conform with the findings by Adeyemi (2020) who revealed that 80% of farmers improved knowledge of maize farming practices after listening to podcasts. It was shown that none of the listed broadcasting media was significant variable.

Table 5: Effectiveness of broadcast media to maize farmers

Effectiveness	Mean	Std. Dev.
Radio	1.24	0.46
Television	1.41	0.58
Newspaper	1.88	0.75
Magazine	2.28	0.79
Websites	2.48	1.01
Podcast	2.80	0.92
Mobile cinema	2.69	0.97
SMS	1.73	0.92
Webinars	2.75	1.03
Satellite Television	2.67	1.03
Livestreams	2.74	1.01

Source: Field Survey, 2025.

**Mean ≥ 3.0 = High effectiveness.

4.7 Level of Effectiveness

The results indicate that a significant majority (60.0%) of maize farmers in the study area find broadcasting media to be an effective tool for maize production. This effectiveness likely stems from the timely and relevant information that broadcasting media provides on farming practices, weather forecasts, and market prices.

However, a notable minority (40.0%) of maize farmers reported that broadcasting media was not effective for maize production. This could be attributed to several factors, including limited access to broadcasting media, particularly in rural areas.

4.8 Constraints of Broadcasting Media among Maize Farmers

Result in Table 6 shows that 6 of the identified constraints were found to be very serious; poor network signal coverage ($\bar{x} = 3.75$), High cost of broadcasting devices ($\bar{x} = 3.72$), Poor power supply ($\bar{x} = 3.56$), Language barriers ($\bar{x} = 3.25$), Time of broadcast ($\bar{x} = 3.21$), Lack of electricity ($\bar{x} = 3.20$). These constraints were considered to be very serious because their mean value exceed the benchmark ($\bar{x} = 3.0$). This result indicates that limited network signal, high cost of broadcasting devices and poor power supply are the most significant constraints faced by maize farmers. Other variables like Lack of preference for information on maize production ($\bar{x} = 2.35$), Low literacy levels ($\bar{x} = 2.32$), Limited diversity in content ($\bar{x} = 2.20$), Interference or distortion in broadcast quality ($\bar{x} = 2.28$), were relatively less serious. Additionally, Limited awareness of broadcast programs on agriculture ($\bar{x} = 2.03$) was not considered a major constraint, as

its mean value did not reach the benchmark set for the study. This implies that these constraints can hinder farmers' access to timely and relevant information, which can negatively impact their decision making and productivity.

Table 6: Constraints of broadcast media among maize farmers

Constraints	Mean	Std. Dev.
Lack of electricity	3.20*	1.48
Poor power supply	3.56*	0.48
High cost of broadcasting devices (e.g., radio, TV)	3.72*	0.71
Limited network signal coverage,	3.75*	0.89
Language barriers in broadcast media content	3.25*	1.00
Time of broadcast (not suitable for farmers' schedule)	3.21*	1.28
Lack of preference for information on maize production	2.35*	1.20
Low literacy levels affecting understanding of information	2.32	1.10
Limited diversity in content (relevant agricultural information)	2.20	0.85
Interference or distortion in broadcast quality	2.28	0.89
Limited awareness of broadcast programs on agriculture	2.03	0.89

**Mean ≥ 3.0= High constraints.

Source: Field Survey, 2025.

4.9 Hypothesis Testing

4.9.1 Hypotheses of the Study

H0: There is no significant relationship between respondents' socio-economic characteristics and effectiveness of broadcasting media in the study area.

The findings from the regression analysis in Table 6 show the relationship between socio-economic factors and effectiveness of broadcasting media in maize production. it has been documented that broadcasting media serve as vital tools in agricultural extension services, disseminating crucial information on improved farming techniques, climate adaptation strategies, and market access (Munshi, 2014).

However, the degree to which farmers benefit from such information depends on their socio-economic characteristics. Results of the analysis reveal that farming experience (b= *0.171, p = 0.050*) has a positive and significant effect on the effectiveness of broadcasting media at the 0.05 level, implying that more experienced farmers benefit more from broadcasting media. Also, household Size ($b = -0.714, p \leq 0.000$) has a negative and highly significant effect at the 0.01 level, indicating that larger households may struggle more with adopting media-based agricultural information.

Furthermore, age ($b = 0.005, p = 0.938$) is not significant, suggesting that age does not play a crucial role in the effectiveness of broadcasting media. The findings implies that experienced farmers may have greater exposure to past agricultural extension services,

making them more receptive to new knowledge transmitted through radio or television (Deressa *et al.,* 2009). Additionally, experience fosters a deeper understanding of farming dynamics, enabling farmers to integrate new information into their existing practices more effectively (Ragasa *et al.,* 2016). This finding aligns with previous studies indicating that experienced farmers are more likely to adopt and benefit from agricultural innovations than their less-experienced counterparts (Abdulai and Huffman, 2014 and Bentley *et al.,* 2019). They are also better equipped to critically assess the reliability of information and make informed decisions, thereby enhancing the utility of broadcasting media in maize production.

In addition, on the household size, the findings align with the findings of Meijer *et al.* (2015) which found that larger households were less likely to implement climate-smart agricultural practices due to constraints in labor and resource management. This implies that broadcasting media strategies should consider these household dynamics and incorporate measures such as targeted programs that address the specific needs of larger families. It has also been researched that one possible explanation for this neutrality is that radio and television, as traditional forms of media, are widely accessible across different age groups. Unlike digital platforms that require specific skills and infrastructure, broadcast media present information in a more universally accessible format, reducing the age-related digital divide observed in other communication channels (Mittal and Mehar, 2016).

Furthermore, since at least two socioeconomic factors (farming experience and household size) show significant relationships with the effectiveness of broadcast media, the null hypothesis is rejected, showing that socioeconomic characteristics do influence the effectiveness of broadcast media in maize production. However, age is an exception, as it does not significantly affect the effectiveness of broadcast media.

Table 7: Relationship between selected socio-economic characteristics and effectiveness of broadcasting media in maize production

	Unstandardized coefficients		Standardized coefficients		
	Beta	**Std. Error**	**Beta**	**T-value**	**Sig.**
(Constant)	26.452	2.49	-	10.623**	0.000
Age	0.005	0.069	0.008	0.078	0.938
Experience	0.171	0.087	0.201	1.973*	0.050
Household size	-0.714	0.159	-0.375	-4.489**	0.000

R = 0.405; R Square = 0.164; F = 9.293 (P≤0.000); **Significant at 0.01 level of significance; * Significant at 0.05 level.

Source: Field Survey, 2025.

H1: There is no significant relationship between the socio-economic characteristics of maize farmers and their accessibility to broadcasting media in the study area.

The regression analysis results presented in Table 7 indicate that there is no significant relationship between respondents' socio-economic characteristics and their accessibility to broadcasting media. Specifically, the findings show that age (B = 0.069, p = 0.552), experience (B = -0.127, p = 0.388), and household size (B = 0.192, p = 0.475) are not statistically significant predictors of accessibility. This suggests that factors such as age, farming experience, and household size do not play a critical role in determining individuals' ability to access broadcasting services.

The lack of significance for these variables implies that accessibility to broadcasting media may be influenced more by structural or infrastructural factors rather than by individual socio-economic characteristics. This is consistent with previous research, which has shown that traditional media forms like radio and television are generally accessible across various demographic groups (Mittal and Mehar, 2016). Unlike digital platforms that often require specific skills, financial resources, or internet connectivity, broadcast media are designed to reach diverse populations, including those with varying levels of education and income (Munshi, 2014).

Furthermore, earlier studies suggest that accessibility to media is typically determined by infrastructural development, geographical coverage, and government policies, rather than individual attributes (Meijer *et al.,* 2015). For example, large-scale broadcasting

services aim to maximize audience reach, thereby minimizing disparities based on socio-economic characteristics. Additionally, Abdulai and Huffman (2014) emphasize that while experience can influence the adoption of agricultural innovations, its impact on media accessibility is minimal, since radio and television are generally inclusive communication tools.

Table 8: Relationship between socio-economic characteristics and accessibility of broadcasting media

	Unstandardized coefficients		Standardized coefficients		
	B	**Std. Error**	**Beta**	**t-value**	**Sig.**
(Constant)	32.5	4.202		7.734	0.000
Age	0.069	0.116	0.07	0.597	0.552
Experience	-0.127	0.147	-0.096	-0.867	0.388
Household size	0.192	0.268	0.065	0.717	0.475

Source: Field Survey, 2025.

R = 0.108; R Square =0.012; F = 0.556 (P≤0.000); **Significant at 0.01 level of significance; * Significant at 0.05 level.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The findings from the study indicate that in the production of maize in Ovia North-East Local Government Area, Edo State that 49.3% of respondents were males and 50.7% were females. This indicates that maize farming is not gender-dependent and that majority of the farmers engaged in the production of maize are above the age of 40 years that is the range of 41 – 59 years which is an indication that people who are filled with energy and resources engage mostly in the production and are still in their active working years. It was also gathered that the majority of the farmers were educated, being above the baseline of literacy which is the primary school education (96.7%). This allows the farmers to appreciate the effectiveness of broadcasting media for betterment of their life and able to overcome the constraints faced in the agricultural production.

The study also indicates that farmers used various broadcasting media platforms and rated their effectiveness. Podcasts was found to be the most effective, with 2.80% of respondents favoring them due to their deep audience engagement, extended listening time, and ability to facilitate in-depth discussions. In contrast, radio had a lower effectiveness rating (1.24%) due to limited audience engagement and declining popularity, especially among younger audiences.

The result from the field survey suggest that effectiveness of broadcasting media in maize production is influenced by farming experience ($b = 0.171$, $p = 0.050$), household size ($b = -0.714$, $p \leq 0.000$). These has a positive significant effect, indicating more experienced farmers benefits more from broadcasting media and negative and highly significant effect signifying that larger household may face challenges in adopting agricultural information from broadcasting media respectively.

5.2 Conclusion

The finding of the result revealed that:

1. The broadcasting media listed were not effective in maize farming

2. Broadcasting media was available to majority of the farmers, showing that it can be widely used when accessible.

3. Majority of farmers perceived broadcast media to be very effective.

5.3 Recommendations

Based on the findings in the study, the following recommendations are made:

1. Broadcasting media should be made easily accessible to farmers This include developing community listening centers and providing affordable, solar powered radio to farmers ensuring consistent access to vital agricultural information.

2. Targeted agricultural broadcast programs should be developed, this is done to meet the specific needs of maize farmers.

3. Since farmers have busy schedules, agricultural programs should be aired at convenient times, such as very early mornings or evenings when they are likely available. Also, repeated broadcasts and recorded versions accessible through mobile phones or community centers can further enhance reach and impact

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APPENDIX

RESEARCH QUESTIONNAIRE

DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION SERVICES, FACULTY OF AGRICULTURE, UNIVERSITY OF BENIN, BENIN CITY, NIGERIA

Dear Respondent,

I am a final year student of the above-named Department and University carrying out a research project on: **"Effectiveness of Broadcasting Media in Disseminating Agricultural Information to Maize Farmers' in Ovia North-East Local Government Area Edo State".** I solicit your cooperation to kindly answer the questions below as correctly as possible so as to ensure reliable data for this study.

This research work is purely for academic purpose and all information to be supplied will be treated with absolute confidentiality and used strictly for this study only.

Thanks for your anticipated cooperation.

Yours faithfully,

David Osahon OMORAGBON
***Researcher*.**

INSTRUCTIONS: Please tick (√) and write where necessary.

State:……..……..……

Local Government Area……..……

Town/Village/Community .....

SECTION A: SOCIO-ECONOMIC CHARACTERISTICS OF THE RESPONDENT

(1) Sex of respondent: Male ( ) Female ( )

(2) Age of respondent (in years): ..... year.

(3) Marital Status: Single ( ), Married ( ), Separated ( ), Divorced ( ), Widowed ( ), Others (please specify) ……...…….

(4) Level of Education: No formal Education ( ), Primary Education ( ), Secondary Education ( ), Tertiary ( ), Others (please specify) ……..……..... ……

……...

(5) Experience in maize farming:…….....

(6) Major occupation: Farming ( ), Marketing ( ), Farming and marketing ( ), Civil service ( ), Others (please specify) ……..…….

(7) Household size: (Please specify) ……

(8) Access to electricity: ……

(9) Sources of information about maize farming: (Please specify):…….……..

……....

SECTION B: BROADCAST MEDIA AVAILABLE AND ACCESSIBLE TO MAIZE FARMERS

(10) Are there any broadcast media available and accessible to maize farming?

Yes ( ), No ( ).

(11) If yes, please specify and rate the availability and accessibility by ticking **(√)**.

S/N	Broadcast media	Available					Accessible				
		Yes				No	Yes				No
		HA	RA	NA	A		HA	RA	NA	A	
i	Radio										
ii	Television										
iii	Newspaper										
iv	Magazine										
v	Websites										
vi	Podcast										
vii	Mobile Cinemas										
viii	SMS										
ix	Webinars										
x	Satellite										
xi	Livestreams										
xii	Others (Please specify)										

KEY: HA – Hardly Available, RA – Rarely Available, NA – Not Available, A – Available.

SECTION C: PERCEIVED BENEFITS OF BROADCASTING MEDIA TO MAIZE FARMERS

(12) Are you aware of the benefits of broadcasting media to maize farming? (Please identify in agreement to the following perceived benefits of broadcasting media).

S/N	Benefits	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
i	Broadcast media has help in linking clients to market					
ii	Broadcast media has raises awareness about new technologies on maize					
iii	It raises awareness about new programmes on maize production					
iv	It exposes farmers to technical demonstrations on certain maize farming					
v	It helps in diagnosis of problems and recommendations and solutions.					
vi	Broadcast media utilization has help in responding to follow up questions					
vii	It facilitates access to credits and inputs					
viii	Information from broadcast media help farmers to conduct survey regarding maize production					
ix	It helps in disease and pest management					
x	It has raises awareness about climate change in it impact on maize farming					
xi	It has help to share success stories and case study from other maize farmers					
xii	Information from broadcast media offers advice on post-harvest handling and storage of maize					
xiii	It helps in offering advice on soil management and fertilization for maize production					

xiv	Others (please specify):

SECTION D: EFFECTIVENESS OF BROADCAST MEDIA TO MAIZE FARMERS

(13) How effective do you find broadcast media in providing information and support for maize farming?

S/N	Effects	Not effective	Slightly Effective	Moderately Effective	Very effective	Extremely Effective
i	Radio					
ii	Television					
iii	Newspaper					
iv	Magazine					
v	Websites					
vi	Podcast					
vii	Mobile cinema					
viii	SMS					
ix	Webinars					
x	Satellite Television					
xi	Livestreams					
xii	Others (please specify)					

SECTION E: CONSTRAINTS

(14) What challenges do you face in trying to access broadcasting media information on maize production?

S/N	Constraints	Very Serious	Serious	Undecided	Not serious	Not a problem
i	Lack of electricity					
ii	Poor power supply					
iii	High cost of broadcasting devices (e.g., radio, TV)					
iv	Limited or poor network signal coverage,					
v	Language barriers in broadcast media content					
vi	Time of broadcast (not suitable for farmers' schedule)					
vii	Lack of preference for information on maize production					
viii	Low literacy levels affecting understanding of information					
ix	Limited diversity in content (relevant agricultural information)					
x	Interference or distortion in broadcast quality					
xi	Limited awareness of broadcast programs on agriculture					
xii	Others (please specify)					