ROLE OF MEDIA IN THE DISSEMINATION OF AGRICULTURAL INFORMATION: A CASE OF SHAMBA RADIO, IRINGA REGION

JAMES ORONGAI LEKENI

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ART IN MASS COMMUNICATION

DEPARTMENT OF JOURNALISM AND MEDIA STUDIES

THE OPEN UNIVERSITY OF TANZANIA

2025

CERTIFICATION

The undersigned certify that they have read and here by recommend for acceptance by the Open University of Tanzania a dissertation titled: ***"Role of Media in the Dissemination of Agricultural Information: A Case of Shamba Radio, Iringa."***. In partial fulfilment of the requirements for the award of the degree of Master of Arts in Mass Communication of The Open University of Tanzania.

_____

Dr. Rajendran J. Britto

(1st Supervisor)

_____

Date

_____

Henry Mambo

(2nd Supervisor)

_____

Date

COPYRIGHT

DECLARATION

I **James Orongai Lekeni**, declare that the work presented in this dissertation is original. It has never been presented to any other university or institution for similar award. Where other people's work has been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfilment of the requirements for the degree of Master of Arts in Mass Communication (MAMC) of the Open University of Tanzania.

_____

Signature

_____

Date

DEDICATION

This work is dedicated to my beloved wife and friends who have heighten my interest in education.

ACKNOWLEDGEMENT

This study would not have been accomplished without the help of many people. To my supervisor Dr. Rajendran J. Britto for his extensive and valuable comments without it, this study would not have been accomplished.

I wish thank my heavenly father, the father of our Lord Jesus Christ that has been Ebenezer to me. Because he is the one who has brought me this very far by enjoying his divine protection as well as divine favour. I am grateful as well, to my best friend Rev. Makuru for his tireless work to keep on polishing this work, so that it would be more suitable for academic purposes. Similarly, I won't forget just to vote a word of thanks to the University of Iringa, particularly the department of Journalism; they have been very kind to me, especially when I was a little bit busy, travelling sometimes to villages for data collection. In fact, my responsibilities at the departmental level were partially suspended, in order to give me ample time to do the job in a satisfactory way. Needless to say, that my heartfelt gratitude goes, to the head and the entire staff of the department of the Mass Communication of the Open University of Tanzania, in fact since I started my course work journey, they have been very supportive to me.

I thank my immediate family, my beloved wife and my son; they have been very patient whilst doing data collection, they were not frustrated by my busy schedule that has made me to be away from them on a frequent basis.

ABSTRACT

This study was undertaken to explore the role of the Media in disseminating Agricultural information a Case study of Shamba Radio in Iringa. Specifically, to assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication. The study had a sample size of 70 farmers both males and females and two extension officers who were involved to provide some complimentary information as key informants on the role of Shamba Radio in disseminating Agricultural information. Data were collected through semi- structed questionnaire with open ended and close ended questions. Similarly, descriptive statistics were used during the data analysis. The results revealed that farmers depend on Shamba Radio as a reliable medium to the agricultural information, it was found that through the Shamba radio Programmes farmers have learned, news ways of farming, new avenue for markets of their produce, new agriculture inputs as well as weather variations in their areas. The study recommended the establishment of more radio stations to help small scale farmers to access information as quickly as possible, supporting initiative done by the Shamba Radio and providing more experts on the issues related to soil in order to educate and give more knowledge to the small-scale farmers.

Keywords: *Disseminating Agricultural information, farming community, Shamba Radio, Iringa*

TABLE OF CONTENTS

LIST OF TABLES

FIGURE

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Agriculture stands as a cornerstone for the economic development of nations, playing a pivotal role in sustaining livelihoods, particularly in developing countries where a significant portion of the population relies on farming (Smith et al., 2019). The success of agricultural endeavors hinges on the access to timely and relevant information that enables farmers to make informed decisions, enhance productivity, and adapt to dynamic environmental conditions. This imperative need for agricultural information has led to the increasing recognition of radio as a powerful medium for dissemination (Jones & Brown, 2020).

In recent years, radio has emerged as a prominent channel for delivering agricultural information, providing a useful platform that reaches diverse and dispersed farming communities (Johnson *et al.,* 2021). This shift is underpinned by the effectiveness of radio in overcoming geographical barriers, making it an accessible and cost-effective means of communication. Within this landscape, Shamba Radio has risen as a noteworthy player, gaining prominence for its role in addressing the specific informational needs of farmers (Green & White, 2018).

The focal point of this study is Shamba Radio in the context of Iringa, where it has positioned itself as a key player in the provision of agricultural information (Black & Grey, 2022). Iringa, a region with a predominantly rural and agrarian economy,

underscores the significance of Shamba Radio as it caters to the unique needs of the local farming community. The medium's programming is intricately designed to offer a localized approach, addressing the specific challenges and opportunities that farmers in Iringa encounter.

Understanding the role of Shamba Radio in the provision of agricultural information is paramount for assessing its broader impact on the agricultural sector in Iringa and beyond (Smith & Johnson, 2020). While the effectiveness of radio as a medium for agricultural communication has been acknowledged in various contexts, the specific contributions and challenges faced by Shamba Radio in the unique setting of Iringa warrant dedicated attention.

Shamba Radio's uniqueness lies in its ability to disseminate information on various facets of agriculture that are pertinent to the Iringa region (White & Blue, 2019). This includes but is not limited to, best agricultural practices suitable for the local soil and climate conditions, real-time weather forecasts crucial for planning planting and harvesting activities, market trends to assist farmers in making informed decisions about selling their produce, and other topics directly relevant to the agricultural landscape of Iringa. Since the inception of the Shamba radion in Iringa, there have been some programmes aired by the Shamba Radio to the farmers, for example *Amka na shamba programme, technologia shambani, a*nd *Kilimo biashara* and *jabali la shamba.* All these are the strategies to try to bring farmers to together, but in fact there is no much details to prove that all these programmes have been efficacious to the life of farmers. Studies will be conducted in order do some investigation to find the

relevancy of all these programmes that have been aired by the Shamba Radio in Iringa Region.

By tailoring its content to the specific needs of the local farming community, Shamba Radio has positioned itself as an indispensable ally in the agricultural ecosystem of Iringa. This study seeks to unravel the nicety dynamics of Shamba Radio's influence, aiming to provide insights that can inform not only local practices but also contribute to the broader discourse on agricultural communication strategies in developing regions.

Despite the recognized importance of agricultural information, the accessibility and effectiveness of its dissemination remain significant challenges, particularly in rural and agrarian economies (Johnson & Martinez, 2020). The existing literature acknowledges the crucial role of radio in overcoming geographical barriers and serving as an accessible and cost-effective medium for communicating agricultural knowledge (Smith et al., 2018). Shamba Radio has emerged as a noteworthy player in this landscape, particularly in Iringa, where it caters to the specific needs of the local farming community.

1.2 Problem Statement

Agricultural development stands as a cornerstone for economic progress in developing nations (Smith *et al.,* 2018). The livelihoods of a significant portion of the population in developing countries hinge on successful farming practices, making access to timely and relevant agricultural information crucial (Brown & Jones, 2019). While there is a

broader acknowledgment of radio's effectiveness in agricultural communication, there is a dearth of studies delving into the localized impact and challenges faced by Shamba Radio in meeting the unique informational needs of Iringa's farming community.

Understanding Shamba Radio's role is vital for shaping effective policy interventions. Policymakers need empirical evidence, as highlighted by Smith *et al.* (2018), to develop targeted strategies supporting radio-based agricultural information dissemination. Brown and Jones (2019) argue that the digital divide and limited internet penetration in rural areas contribute to the reliance on traditional mediums for information dissemination. The reliance on traditional farming practices and the impact of climate change necessitates targeted and localized information (Johnson & Martinez, 2020). Shamba Radio, by positioning itself as a key player in addressing these needs, presents an opportunity to enhance the overall agricultural landscape in Iringa.

The existing gap in knowledge highlights the need for a focused exploration of Shamba Radio's role, contributions, and potential limitations in facilitating agricultural knowledge transfer. The lack of detailed researched information on Shamba Radio's role within the specific context of Iringa contributes to the problem. Despite the recognized potential of radio as an effective medium for information dissemination, there is a lack of in-depth understanding of how Shamba Radio, in particular, addresses the unique challenges faced by farmers in Iringa Region.

1.3 Research Objectives

1.3.1 General Research Objectives

To assess the Role of Media in the dissemination of Agricultural Information, Iringa Region.

1.3.2 Specific Objectives

The following are the specific objectives that will be used to investigate the Role of Media in the dissemination of Agricultural Information, in Iringa Region

i. To assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa Region
ii. To explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes in Iringa Region
iii. To identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication in Iringa region.

1.4 Research Questions

i. How effective is Shamba Radio in disseminating agricultural information to the farming community in Iringa Region
ii. To what extent does Shamba Radio impact farmers' knowledge, practices, and decision-making processes in Iringa Region
iii. What are the challenges and opportunities associated with the utilization of Shamba Radio as a platform for agricultural communication in Iringa Region.

1.5 Significance of the Study

This research holds significant academic importance for various stakeholders in Iringa's agricultural landscape, benefiting farmers, agricultural extension services, policymakers, and media practitioners. Farmers will gain reliable information from Shamba Radio, empowering them with knowledge on best practices, market trends, and weather conditions. The study will encourage active engagement, allowing farmers to contribute to content refinement. Agricultural extension services benefit from insights into challenges and opportunities, tailoring support programs to complement Shamba Radio. Policymakers gain evidence-based insights for sustainable agriculture, and media practitioners refine strategies for impactful communication. Ultimately, this research catalyses positive change, fostering an informed, engaged, and empowered farming community in Iringa and similar regions.

1.6 Scope of the Study

This study examined Shamba Radio in Iringa, focusing on its role in disseminating agricultural information to the local farming community. With a deliberate narrowing of focus, the research aims to uncover Shamba Radio's distinct characteristics, challenges, and contributions in this specific context. By delving into its operation intricacies, the study seeks nicety insights into Shamba Radio's effectiveness in meeting local farmers' informational needs. This targeted approach aims to inform local strategies and contribute meaningfully to the broader discourse on agricultural communication in similar settings.

1.7 Organization of the Study

The subsequent chapters of this research follow a structured organization. Chapter One introduces the study, presenting background information, articulating the research problem, outlining research objectives, highlighting significance, and defining scope of the study. Chapter Two conducts a comprehensive literature review, covering agricultural communication, radio-based interventions, and Shamba Radio's role in diverse contexts. This serves as a foundation for understanding the broader landscape. Chapter Three outlines the research methodology, ensuring transparency in data collection and analysis. While, chapter four deals with the data presentation and analysis that is supported by the tables to prove the responds that farmers gave in terms numbers. Meanwhile the chapter five deals with the in-depth analysis of the findings supported by various literatures. And the last chapter which is the sixth chapter is just to provide recommendations to various stakeholders and the conclusion and the way forward. By following this structure, the research aims to offer a nicety and well-rounded exploration of Shamba Radio's role in the provision of agricultural information

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Overview

This chapter focused on related literature to the study problem. The chapter is organized into conceptual definitions, theoretical and empirical reviews leading to the root of knowledge gaps that existing in different studies. The research involves of a conceptual framework which display variables on the role of media in the provision of agricultural information.

2.2 Conceptual Definitions

2.2.1 Agricultural Information

Agricultural information, according to the Food and Agriculture Organization (FAO) in "Agricultural information management standards: Concepts and principles" (2016), encompasses data, knowledge, and communication about agriculture, covering aspects like crop cultivation, livestock, pest control, irrigation, market trends, and technological advancements. Crucial for stakeholders, it aids informed decision-making, boosts productivity, and encourages sustainable agricultural practices.

2.2.2 Local Radio

Local radio refers to broadcasting stations that cater to a specific geographic area, providing content tailored to the interests and needs of the local community. In the context of this study, local radio specifically denotes Shamba Radio in Iringa, which delivers agricultural information designed to address the unique challenges and

opportunities in the region. AMARC's "Community Radio: A Handbook for the Sustainable Development of Community Radio in Latin America" (2006) underscores the significance of local radio addressing community issues, offering a platform for local voices.

2.2.3 Information Accessibility

Information accessibility, as defined by UNESCO in "Media and Information Literacy Curriculum for Teachers" (2013), denotes the ease of obtaining and using information. Emphasized by the World Bank in "Information and Communications for Development: Global Trends and Policies" (2009), it ensures equal opportunities, crucial for farmers in Iringa to access and understand agricultural information.

2.3 Critical Review of Supporting Theories

According to Kerlinger (1986), a theory is a structured framework that systematically elucidates and forecasts phenomena by interconnecting various constructs. The study will employ the following theories to guide this research, utilizing their predictive power to understand and explain observed occurrences.

2.3.1 Agenda-Setting Theory

The agenda-Setting Theory, as developed by McCombs and Shaw (1972), is highly applicable to understanding the role of Shamba Radio in the provision of agricultural information in Iringa. The theory posits that media outlets can influence public perception by emphasizing certain issues. In the context of this study, Shamba Radio acts as a key agenda-setter, shaping the priorities and topics discussed within the local farming community. By analyzing the prominence and framing of agricultural issues

on Shamba Radio, the research seeks to uncover how the station influences the agenda of agricultural discussions in Iringa. This application of the theory provides insights into the power dynamics of information dissemination and the impact of Shamba Radio on shaping the agricultural narrative within the region.

2.3.2 Media System Dependency Theory

Ball-Rokeach and DeFleur's Media System Dependency Theory (1976) is integral to understanding the interdependence between the local farming community and Shamba Radio. This theory posits that individuals and communities depend on media for essential information. In the agricultural context of Iringa, the study applied this theory to explore the extent to which farmers rely on Shamba Radio for crucial agricultural information.

By investigating the nature of this dependency, the research aims to uncover the role Shamba Radio plays in meeting the specific informational needs of Iringa's agrarian society. The application of Media System Dependency Theory provides a nicety understanding of the relationship between the farming community and Shamba Radio, highlighting the radio station's significance in the local agricultural information ecosystem.

2.4 Empirical Analysis of Relevant Studies

2.4.1 The Effectiveness of Shamba Radio in Disseminating Agricultural Information to the Farming Community in Iringa

Moyo *et al.* (2017) contributed to the African narrative by investigating the effectiveness of radio programs in promoting sustainable agricultural practices in sub-

Saharan Africa. Their empirical findings emphasized the positive influence of radio in improving agricultural knowledge and practices among smallholder farmers. The study underscored the potential of radio to serve as an educational platform, fostering positive changes in farming techniques and contributing to agricultural sustainability. These studies collectively enrich the empirical landscape of agricultural communication in Africa. Majeed (1985) mentions that radio has the unique distinction of being the first major electronic technology to be introduced to the largely illiterate rural population in early sixties. Radio was seen as a source of information through mass bulletins and radio talks especially geared towards the rural masses‖. To effect change in the attitudes, beliefs and traditional ways of the thinking of the villagers and to remove illiteracy, superstitions and misconceptions in rural areas about things radio programmes played an important role. Radio is very commonly used both in urban as well as rural areas. cover most of the aspects of rural development. It has very good track record in this regard.

Shifting to Ethiopia, Gebremedhin *et al.* (2016) explored the role of radio in disseminating agricultural knowledge among rural communities. Their study found that radio played a vital role in enhancing farmers' understanding of improved farming practices and market conditions.

In Uganda, Musa et al. (2019) delved into the impact of radio on farmer decision-making processes. Their empirical analysis shed light on the significant role of radio in shaping farmers' choices concerning crops and agricultural techniques. The study emphasized the influence of radio in providing timely and relevant information that

directly impacted the decision-making of farmers. These East African studies contribute valuable insights into the specific regional dynamics of agricultural communication, acknowledging the importance of localized approaches.

Mushi *et al.* (2016) conducted a study exploring the impact of radio programs in enhancing the knowledge of smallholder farmers in Tanzania. Their empirical findings demonstrated that radio played a pivotal role in improving farmers' understanding of agricultural practices and market trends. The study highlighted the significance of radio as a channel for delivering localized and context-specific information to Tanzanian farmers.

Ngowi and Mlozi (2018) further contributed to the Tanzanian narrative by investigating the impact of radio in disseminating weather information to farmers. Their empirical analysis emphasized the role of radio in supporting informed decision-making related to crop management. The study illustrated how radio, as a medium, facilitated access to critical weather updates, allowing farmers to make timely and strategic decisions in response to changing climatic conditions. These Tanzanian studies offer a localized understanding of the effectiveness of radio in the agricultural context, acknowledging the unique challenges and opportunities within the country.

Agricultural communicators are science communicators that deal exclusively within the diverse, applied science and business that is agriculture. An agricultural communicator is “expected to bring with him or her a level of specialized knowledge in the agricultural field that typically is not required of the mass communicator”

(Chekwendu; 1997). Agricultural communication also addresses all subject areas related to the complex enterprises of food, feed, fiber, renewable energy, natural resource management, rural development and others, locally to globally. Furthermore, it spans all participants, from scientists to consumers - and all stages of those enterprises, from agricultural research and production to processing, marketing, consumption, nutrition and health. A growing market for agricultural journalists and broadcasters led to the establishment of agricultural journalism and agricultural communication academic disciplines.

Rural development receives poor media coverage. Most reporters consider the issue to be of little interest and relegate items on them to the furthermost corners of the news. Furthermore, evidence of this fact is the rarity of specialist broadcasts on agriculture (Wood, 1997:12). The problem is partly explained by inadequate training facilities for agricultural journalism since collecting and diffusing this kind of information requires experience and a variety of skills. Knowledge of agronomy, economics, nutrition and the environment are prerequisites for journalists who want to understand agricultural issues.

2.4.2 The Impact of Shamba Radio on Farmer's Knowledge, Practices and Decision-Making Processes

Another global perspective comes from Wang and Zhang (2019), who investigated the role of radio in the context of sustainable agriculture practices. Their findings underscored the importance of radio programs in promoting environmentally friendly farming methods and fostering sustainable agricultural practices globally.

Brown and Jones (2019) expanded the global perspective by exploring the digital divide in rural areas. In their study, they acknowledged the limitations of digital technologies in reaching remote farming communities. Instead, they emphasized the importance of traditional media, including radio, as a means of providing accessible information to farmers. Their findings highlighted the role of radio in bridging information gaps and ensuring that agricultural knowledge reaches even the most remote areas. These global studies collectively contribute to understanding the broader significance of radio in agricultural communication on a worldwide scale.

The study of Okwu *et al.,* (2007) revealed that majority of the farmers liked to listen to agriculture programs on agronomic, plant production and livestock information through radio. Ani and Baba, (2009) argued that radio and newspaper could transfer information among the farmers in remote areas and can enhance the knowledge and skills for the development of agriculture. It is found that radio was used to broadcast much useful agricultural content like discussions related to agricultural problems and solutions in Zambia. It is also used to broadcast 14 agricultural programs in multiple languages such as English, Hausa, Igbo and Yoruba in Nigeria. Nyareza and Dick, (2012) stated that community radio can successfully be incorporated into agricultural extension service programs in Zimbabwe for broadcasting agricultural information. Waters et al., (2011) assessed the impact of community radio in Indonesia and concluded that effective radio activities can make a significant change in the community life. Research was conducted on the contribution of community radio movement for conscientization and development

Moving to West Africa, Ayantobo et al. (2017) explored the impact of radio programs on agricultural knowledge and practices in Nigeria. Their study revealed that radio played a significant role in improving the knowledge and skills of smallholder farmers, contributing to increased agricultural productivity.

Kimani and Maina (2015) conducted a study in Kenya, emphasizing the role of radio in promoting agricultural innovation and the adoption of improved farming techniques. Their empirical findings revealed a positive correlation between radio exposure and the adoption of new agricultural practices. The study highlighted radio as a catalyst for change, influencing farmers to embrace innovative approaches in their agricultural endeavours.

In a study specific to weather information dissemination in Tanzania, Mwongera et al. (2018) investigated the role of radio in providing timely weather updates to farmers. The findings highlighted radio's importance in supporting informed decision-making related to crop management and adaptation to changing weather patterns. Sharma (2010) also stated that agricultural programs transmitted by Radio Nepal had positive impacts in both small- and large-scale development. Tortermvasana, (2011) found the lack of accessibility to other communication technologies leading to a combination of broadcasting and narrow-casting media to deliver agricultural information in a number of research projects. Irfan et al. (2006); Alam and Haque, (2014) and Murty and Albino, (2012) analyze the contribution of various TV channels on the dissemination of agricultural information to the farmers for their agricultural enrichment.

The community radio is recognized to facilitate in terms of popular and relevant to a local, specific audience is generally overlooked in terms of mass media (Kembero, 2014). Community radio stations are operated, owned and influenced by certain communities, which tend to serve. The community radio is basically operated in terms of non-profit, and it provide mechanism for welcoming the individuals, groups and communities to tell own stories, share experience and welcome contributors (Bryson, 2011). The information is delivered to the farmers to facilitate farming activities in the innovative way (Jimi &Noeem, 2013). Information policy is the engine, which supports rural development for the performers in terms of an effect of rural development, from decision-makers to peasant farmers. The ability to reach farmers is enhanced by the information; in order for information to reach the farmers must be transferred by appropriate channels (Lavison, 2013).

2.4.3 Challenges and Opportunities Associated with The Use of Shamba Radio as A Platform for Agricultural Communication

Smith *et al.* (2018) conducted a comprehensive study on the global challenges and opportunities in agriculture, emphasizing the crucial role of radio as a medium that transcends geographical barriers. Their research highlighted radio's effectiveness in reaching diverse and dispersed farming communities, making it a powerful tool for knowledge transfer. The study underscored the versatility of radio as a cost-effective means of communication, particularly in developing countries where a significant portion of the population relies on farming for their livelihoods. Thus, radio expected to play a role in bridging the information gap, and in eliminate the information asymmetric that exists between farmers and regions Okello, *et al.,* (2011). There is a

need for essential information about predictable weather conditions, and about knowledge of know-how: which crops to plant, which seed varieties to use, what the best cultivation practices and farm management practices are for that area, and the best suitable technology available locally. Improved returns from agricultural production through enhanced access to markets can be a crucial step in alleviating poverty and overall livelihood improvement (Okello *et al.,* 2011).

Rajasundaram (1981) has given following strategies population of the country lives in rural areas where facilities in the field of education are very scanty and limited. Unlike the printed words and other media of communication, radio enjoys the unique advantages of reaching the far-flung areas and message can be easily understood by everyone as it requires no prior standard of education and knowledge. Radio has enabled millions of villages to receive information of all kinds. Radio and television are extensively used in distance and non-formal education, in both advanced and developing countries. The advent of modern technologies could not alter the role of radio especially for rural areas. Its importance is as it was forty years ago. In late seventies Schramm, W. highlighted the scope of radio, if mass media or equally potent and rapid means of information were not available, it would be utterly impossible to think of national, economic and social uplift attached to such development today. There are several strategies from which any suitable strategy is to be chosen for desirable change. Before choosing any strategy there is a need of knowledge about the interests, needs and desires of the target population. Radio programmes are required to carry out the strategy having order and purpose. Rural development activities are usually organized by government through their information services, ministries and

other statutory bodies. They normally take the form of literacy programme, agricultural extension project, health services. Radio uses different strategies for broadcasting.

According to the report communication technologies are powerful tool for informing people and providing them with the knowledge and skills they need to put agricultural science and production inputs to best use (Mignouna *et al.,* 2011). The agricultural sector generally and farmers particularly, are highly exposed to threats because of bigger disparities in market uncertainties and climatic situation. Farmer's experience to jeopardize and uncertainty is frequently worsened by lack of information about climate, inputs, farm management practices or market prices (Nigel, 2017).

Turning our focus to Africa, empirical analyses have delved into the unique challenges and opportunities faced by the continent's agricultural sector. Johnson and Martinez (2020) conducted a study on the impact of climate change on agriculture in Africa. Their empirical analysis emphasized the critical role of radio in disseminating climate-related information to farmers, aiding in the development and adaptation of sustainable agricultural practices. The study highlighted radio as a reliable medium for conveying real-time information crucial for farmers facing the uncertainties of climate change.

Electronic communication has become one of those wonders of the modern world, which has transformed the world into a global village. Its immediacy and use of both sound and vision have made distant teaching and learning a pleasure. Radio and television farm broadcasts qualities make them suitable channels for achieving the

objective of teaching farmer's new agricultural technologies. (Omenesa, 1992) observed that, radio programmes are usually timely and capable of extending the message to the audience no matter where they may be as long as they have receivers with adequate supply of power. The absence of such facilities as roads, light and water are no hindrance to radio reception. Similarly, difficult topography, distance, time and socio-political exigencies do not hinder the performance of radio. He also observed that, illiteracy is no barrier because the audience's own language is used to convey the messages. Various studies have shown that radio is effective in communicating with farmers.

2.5 Research Gap Identified

A critical research gap has emerged from an extensive analysis of existing studies on radio's efficacy in disseminating agricultural information. While literature emphasizes radio's overall impact, a gap exists in understanding how information accessibility varies among demographic groups within the farming community, such as gender, age, and education level. Addressing this gap is crucial for designing targeted and inclusive agricultural communication strategies. Future research exploring these demographic variations can offer a more comprehensive understanding, leading to tailored strategies that consider diverse farmer needs and promote inclusive and impactful agricultural information dissemination.

2.6 Conceptual Framework

The conceptual framework of a study serves as the underlying structure that guides the research design, methodology, and analysis. In the context of the identified research

gap regarding the nicety dynamics of information accessibility within the farming community, the conceptual framework can be designed to incorporate key elements that shed light on the factors influencing how different demographic groups access and utilize agricultural information through radio communication.

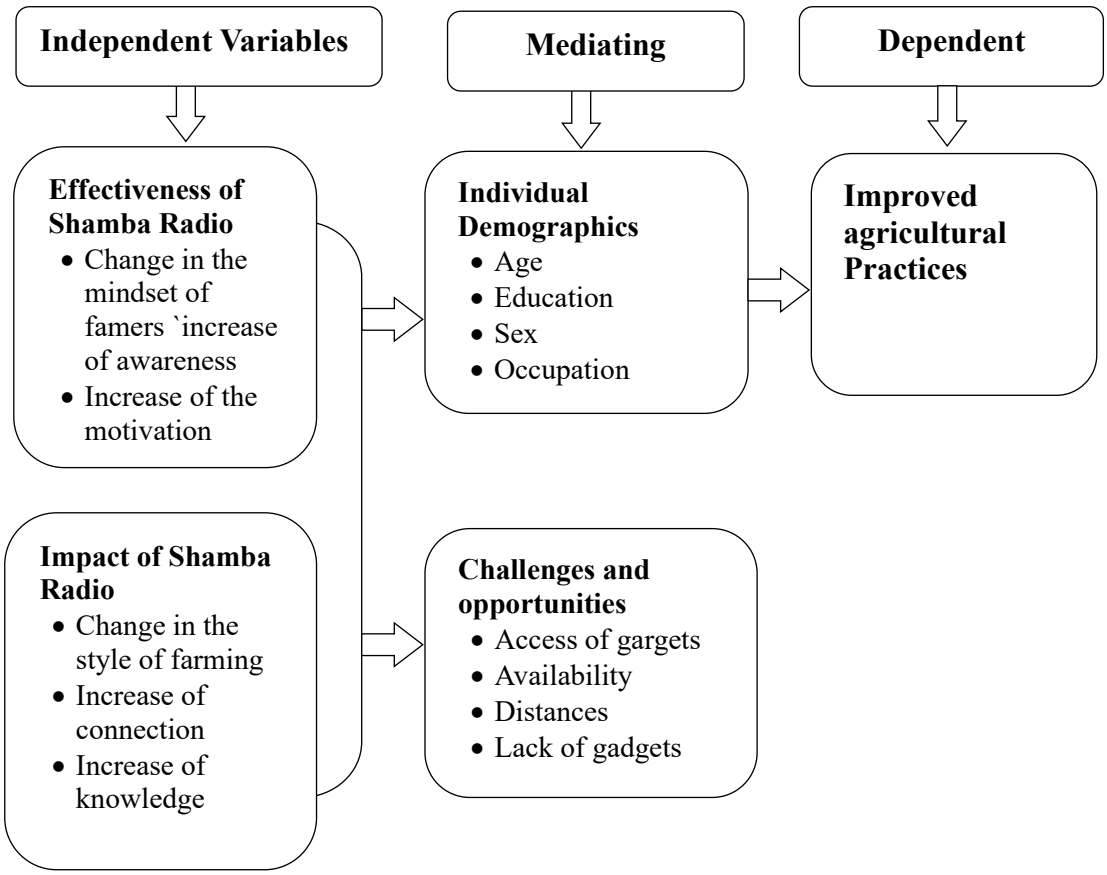

Figure 2.1: Conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology related to the role of media in the provision of agricultural information, Case of Shamba radio, Iringa. The chapter comprises research design, survey population, study area, sampling design and procedures, sample size, data collection methods, data analysis, and ethical issues and considerations.

3.2 Study Approach

The study utilised the mixed methods approach whereby both qualitative and quantitative methods were combined to carry out the study. Qualitative approach is preferred because it was used to uncover trends in the thoughts and opinions and delve into deeper insights of the problem at hand. On the other hand, quantitative approach was used to deal with data in numeric form. The choice for mixed methods is based on the premise that no single approach is enough to bring forth undisputable findings (Kothari, 2006).

3.3 Research Design

The study adopted a mixed-methods research approach, combining both qualitative and quantitative methods to capture the complexity of information accessibility within the farming community. Qualitative methods, such as in-depth interviews and content analysis of radio programs, provide in-depth insights into the experiences and

perceptions of farmers, while quantitative methods, including surveys, enable the collection of numerical data for statistical analysis.

3.4 Description of the Study Area

Iringa Region (*Mkoa wa Iringa* in Swahili) is one of Tanzania's 31 administrative regions. The region covers an area of 35,503 km^2 (13,708 sq mi. Iringa Region is bordered to the east by Morogoro Region and south by Njombe Region. On the west the region is bordered by Mbeya Region. Dodoma Region and Singida Region border Iringa on the north. The regional capital is the Iringa for which the city is named after. According to the 2012 census, the region has a total population of 941,238. Iringa Rural District (*Wilaya ya Iringa Vijijini*) is one of the four districts of the Iringa Region of Tanzania, East Africa. It is bordered to the north by the Dodoma Region, to the east by Kilolo District and encircles Iringa Urban District, to the south by the Mufindi District, to the southwest by the Mbeya Region and to the northwest by the Singida Region.

Agriculture is the mainstay of Iringa's economy accounting for 85% of its GDP. Between 2008 and 2011, an average 345,000 hectares (1,330 sq mi) of land was planted with food crops annually. Maize is the dominant cereal with about 245,000 hectares (950 sq mi) of land devoted to it. Beans are second most important food crop being grown on 56,000 hectares (220 sq mi). Cash crops take about 56,000.00 hectares with sunflower being the major output. The industry in Iringa Region is mostly small scaled and largely located in the Iringa municipality. The food industry consists of tomatoes and chili processing, milk processing, grain milling. There is also carpentry

and oil processing which comprise the bulk of industrial units found within the Iringa Region.

3.5 Population and Sampling Procedures

The target population for the study were be farmers both women and men who are involved in small scale production of maize and beans, and other crops in the area. The study employed both probability and non-probability sampling as a way to facilitate the availability of the information required. Purposive sampling was done as well, in the selection of the villages and wards. Of which, the Ward was Isimani, Tarafani and Kising,a Ward. And the villages were as follows: Mkungugu, Igingilani, Ndolela Luhanga. Thereafter the selection of the households from each village was done to get as much information as possible. Once more, at this stage the list of farmers who have been frequently involved in farming were constituted as the *sampling frame,* from which farmers were randomly selected, making a total of sixty farmers. In addition, to that there would be two extension officers who are responsible in the ward and they were interviewed individually.

3.6 Types and Source of Data

Primary data was collected through personal observation, checklists and scheduled interviews and was supported by the structured Questionnaire. The structured questionnaires had both open ended and close ended questions. Twenty respondents from each village were interviewed. Focus Group Discussion (FGD) was applied as well, to give more strength and validity of the information collected. And not only that, The Focused Group Discussion involved additional number of Ten farmers both

women and men, who are expected to have sufficient knowledge on the issue related to role of the media in the provision of agricultural information. At the same time those with testimonies on what the community Radio contribute to farming activities.

In the same vein the two wards extension officers were interviewed on the basis of the experience, knowledge and understanding on the issue of the small-scale farmers and what the media has been doing in the area. Extension officers were expected to be there in the Ward or Village to implement government policies and thus any information gaps were filled by them. Secondary data was obtained by making a thorough review of the available documents from various sources, particularly the library and the internet. The task of interviewing the respondents was done by the researcher with the help of the enumerator.

3.7 Sampling Design and Procedures

Sampling is a process of selecting a representative of the whole population. Samples are those selected from the survey population. According to Kothari, (2004) sampling procedure is the process or technique of selecting a suitable sample to determining characteristics of the whole population. Simple random sampling and purposive sampling were used in this study. The study employed the following procedures to get the sample.

3.7.1 Simple Random Sampling

Simple random sampling is a method of selecting participants of the study whereby all members of a group/population have an equal and independent chance of being

selected to participate in the study. To employ simple random sampling, the first step would involve creating a comprehensive list or database of all active farmers within the study area. The list could be obtained through collaboration with local agricultural extension services, farming cooperatives, or other relevant organizations. Each farmer in the list is then assigned a unique identifier. Next, a random selection process would be applied, where participants are chosen purely by chance. This could be facilitated using a lottery-style approach. Every farmer in the list has an equal likelihood of being selected, ensuring a representative and unbiased sample.

3.7.2 Sample Size

The sample size determined through Yamane's (1967) formula as computed hereunder; Yamane's formula is commonly used to determine the sample size in a population when conducting survey research. The formula is:

$$n = \frac{N}{1+N(e)^2}$$

Where:

- n is the sample size
- N is the population size
- e is the desired level of precision (expressed as a decimal)

The population size (N= 256,345), let's say you want a 5% precision level (e=0.05)

From the formula: n = 1+ (N*(e)2) 1+ (256,345 (0.05)2).

3.8 Methods of Data Collection

There were two main sources of data collection used in this study; primary and secondary data. The primary data are those which were collected afresh and for the

first time and thus happen to be original in character and Secondary data on the other hand are those which have already been collected by someone else and which have already undergone through the statistics process. The following methods were employed in data collection for this study.

3.8.1 Key Informant Interview Guide

In-depth interviews were conducted with a subset of farmers to obtain qualitative data on their experiences, challenges, and preferences regarding accessing agricultural information through radio. These interviews offer a deeper understanding of individual perspectives, allowing for the exploration of nicety factors that may not be captured through quantitative surveys. The exercise involved the Shamba Radio Staff and two extension officers in the area as well as ward offices, in order to enrich the information.

3.8.2 Questionnaire

Questionnaire was the primary data collection method, administered to a representative sample of farmers within the study area. The surveys included standardized questions to gather quantitative data on demographics, radio usage patterns, and perceptions of information accessibility. This method allows for statistical analysis to identify patterns and correlations related to information accessibility.

3.8.3 Content Analysis

Radio programs related to agriculture underwent content analysis as a method to assess the themes, framing, and prominence of information disseminated. This qualitative

approach enabled the examination of the content's alignment with farmers' needs, providing insights into the effectiveness and relevance of information communicated through Shamba Radio.

3.9 Data Processing and Analysis

In analysing the collected data of this study, a mixed-methods approach was employed, combining both quantitative and qualitative techniques to provide a comprehensive understanding of the research questions. The following analytical methods was utilized:

3.9.1 Quantitative Data Analysis

Basic descriptive statistics such as means, frequencies, and percentages will be employed to summarize and present key characteristics of the quantitative data obtained through surveys. This included demographic information, radio usage patterns, and perceptions of information accessibility.

3.9.2 Qualitative Data Analysis

Thematic Analysis: In-depth interviews and content analysis of Shamba Radio programs underwent thematic analysis. This qualitative technique involves identifying, analysing, and reporting patterns or themes within the data. It allows for the exploration of nicety insights related to information accessibility, local challenges, and the effectiveness of communication strategies.

3.10 Expected Results of the Study

The study aimed to gain comprehensive insights into the dynamics of agricultural information dissemination and perception in Iringa. Anticipated findings include identifying specific information needs within the farming community, assessing the perceived value of Shamba Radio as a source of agricultural information, exploring factors influencing how farmers access and engage with information, uncovering challenges faced in information utilization, and demonstrating the impact of timely and relevant information on farming techniques and overall productivity. These expectations align with the study's objective to provide nicety understanding and contribute to optimizing the role of Shamba Radio in addressing the unique informational needs of Iringa's farming community.

3.11 Ethical Considerations

Throughout the data collection process, ethical considerations were paramount. Informed consent was obtained from all participants, emphasizing voluntary participation and confidentiality of responses. The research adhered to ethical guidelines to ensure the well-being and rights of the study participants.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presented and discussed the research findings on the Role of Media in the dissemination of Agricultural Information, a case Shamba radio Iringa. The study focused on four key objectives: to assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication. Data collected through questionnaires were meticulously recorded and analysed, with results interpreted and presented using tables.

4.2 Background Information of Respondents

This section provides a detailed description of the demographic characteristics of the 70 respondents who participated in the study. The analysis includes an examination of various attributes such as the respondents' gender, age, level of education, work experience and the departments in which they work. These demographic factors are crucial for understanding the diversity of the sample population and how these variables may influence provision of agricultural information through Shamba Radio.

4.2.1 Gender of Respondents

Table 4.1: Distribution of the respondents according to their Sex

Sex of the respondents	Frequency	Percentage
Male	34	48.6
Female	36	51.4
Total	**70**	**100.0**

Source: Field Data (2024)

Results in (Table 4.1) show that most of the respondents participated 36(51.4%) were female, while 34(48.6%) were male. This distribution suggests a slight gender imbalance among the participants, with more females represented in the study. This could imply that the female participants are more prevalent in the agricultural sector within the Iringa Municipality. The gender distribution is important to consider when analysing the Role of Media in the Provision of Agricultural Information, a case Shamba radio Iringa.

4.2.2 Age of Respondents

Table below clearly shows the percentages distribution of the respondents age groups.

Table 4.2: Distribution of the respondents according to their age

Age level	Frequency	Percent
18-35 years	25	35.7
36-55 years	29	41.4
Above 55 years	16	22.9
Total	**70**	**100.0**

Source: Researcher Data (2024)

Results (Table 4.2) shows that majority of the respondents 29(41.4%) were aged between 36-55, followed by 25(35.7%) were aged between (18-35), while 16(22.9%)

respondents were aged 55 and above years of age. This age distribution suggests that a considerable portion of the farmers in Iringa district consists of more young people, which could have implications for how agricultural information is received through Shamba Radio.

4.2.3 Education Level of the Respondents

The Table 4.3. below described the frequency and percentages of education level of the respondents'

Table 4.3: Distribution of the respondents according to their educational level

Educational level	Frequency	Percentage
Primary four	7	10.0
Primary 7	39	55.7
Secondary	18	25.7
College	3	4.3
University	3	4.3
Total	**70**	**100.0**

Source: Field Data (2024)

Results as presented in (Table 4.3) show that majority of the respondents 39(55.7%) possesses primary seven education, 18(25.7%) possess secondary education, and 7(10.0%) had primary four education while only 3(4.3) had college and university education respectively. This high level of educational attainment among the respondents suggests that the workforce in Iringa District is predominantly educated, which could influence how participants receive agricultural information through radio programs. Farmers with lower education levels may have different expectations, the role of media in the provision of agricultural information.

4.2.4 Marital Status of the Respondents

The Table 4.4 below shows the marital status of respondents.

Table 4.4: Distribution of the responds according to their marital status

Marital status	Frequency	Percentage
Married	57	81.4
Divorced	1	1.4
Widowed	7	10.0
Never Married	4	5.7
Single parent	1	1.4
Total	**70**	**100.0**

Source: Field Data (2024)

The results in Table 4.4 revealed that the majority of respondents, 57(81.4%), were married, followed by 7(10.0%) were widowed, 4 (5.7%) never married whereas 1(1.4%) were divorced and single parents respectively. This distribution suggests that the farmers in Iringa District are predominantly married and are active in farming which requires agricultural information that can be obtained through listening to radio stations such as Shamba radio. At the same times being married make the household busy to engage in farming, which makes them more inquisitive in seeking information to improve the style of faming, and sharing information becomes vital to the family.

4.3 Reliability and Validity Test

Smith (2018), asserts that the efficiency of data collection fundamentally depends on the data collection instruments, emphasizing the importance of validity and reliability. Cronbach's alpha and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, along with Bartlett's test of sphericity, remain widely used are metrics in assessing reliability and validity in research studies (Johnson and Brown, 2021).

4.3.1 Reliability

According to Drost, (2011), reliability is the extent to which measurements are repeatable when different people perform the measurement on different occasion, under different condition supposedly with alternative instruments which measure the construct or skill. After analysing data collected on SPSS version 20, the result of Cronbach's alpha was 0.826 as shown in Table 4.5. This implies that, the data collected are reliable.

Table 4.5: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.826	9

Source: Field Data (2024)

4.3.2 Validity

Validity of research Instruments assesses the extent to which the instrument measures what is designed to measure Robson, (2011). But also, validity is the extent to which an instrument measures what it purposes to measure. This concern with how close the study results are, when reflected to reality for the matter under the study.

Table 4.6: Validity analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.682
Bartlett's Test of Specificity	Approx. Chi-Square	38.558
	Df	36
	Sig.	.355

Source: Field Data (2024)

The table 4.6, shows that the value of KMO was 0.682 which suggested that the sample was adequate for exploratory factor analysis as suggested by Crano (2009), who argued that KMO should be either 0.6 or above. From the findings of the study, value of KMO was 0.682 which imply that data collected were valid.

4.4 Study Findings Per Set Objectives

4.4.1 Effectiveness of the Shamba Radio in Disseminating Agricultural Information

The first objective of the study focused on the effectiveness of the Shamba radio in disseminating agricultural information to farmer is Iringa District. The following section presents the responses as obtained from the field of study.

Table 4.7: Distribution of the respondents based on their awareness on the Shamba Radio

Awareness level	Frequency	Percentage
Yes	70	100.0

Source: Field Data (2024)

The findings are presented in Table 4.7 revealed that all 70(100%) respondents had awareness of the existence of Shamba Radio in Iringa. This indicates that the radio is well known by the farmers in Iringa District which can facilitate listenership to agricultural information offered by the radio. Indeed, being aware motivates the small-scale famers to prefer to go further in seeking information to help them. It is quite different when people are not aware of something because it doesn't make them willing to take step to get to know more. Based on Table 4.7, farmers are inquisitive about the

Shamba Radio programme and as result many are striving to seek access to all the programmes aired in shamba Radio in Iringa.

Table 4.8: Distribution of the respondent's duration of listening to Shamba Radio programme

Listening Duration	Frequency	Percentage
Below a one year	6	8.6
one year	21	30.0
two years	43	61.4
Total	**70**	**100.0**

Source: Field Data (2024)

On the same aspect of awareness, the second construct was the length of period participants had listened to the Shamba radio and findings showed that majority 43(61.4%) had been listening to the Shamba radio for two years followed by 21(30.0%) had been listening to Shamba radio for one year while 6(8.6%) had been listening to Shamba radio for less than one year. The findings indicate that participants in the study areas had enough listenership to Shamba radio as majority had been listening to the radio for two years which is enough to acquire agricultural information.

Table 4.9: Distribution of the respondents on the way they get to know about Shamba Radio programmes

Source of information	Frequency	Percentage
Friends	23	32.9
Staff of Shamba Radio	5	7.1
Through radio channel searching	42	60.0
Total	**70**	**100.0**

Source: Field Data (2024)

The findings as presented in Table 4.9 depict that majority of the participants knew about Shamba radio through radio channel searching as these constituted 42(60%) of

the participants followed by 23(32.9%) who got to know about Shamba radio through friends whereas 5(7.1%) knew about Shamba radio through the staff of Shamba radio. The results indicate that farmers in rural areas can easily search for radio stations that carry beneficial information to them in particular agricultural information as is the case for Shamba radio in Iringa district. Therefore, it is quite clear that farmers are happy and don't have any doubt at all when it comes to the issue of the Shamba Radio programmes in their location, the enthusiasm that comes from the farmers make them keen when it comes to get how the shamba Radio is relevant. If the Shamba hadn't been relevant to the small-scale farmers, it would have been difficult to trouble themselves to get to know much about the Shamba Radio programmes.

Table 4.10: Distribution of the respondents on the changes accrued after listening to Shamba Radio programmes

Changes accrued	Frequency	Percentage
Yes	65	92.9
No	5	7.1
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.10 revealed the impact listening to Shamba radio has had on the farming styles of the participants as 65(92.9%) were in agreement that they had noticed changes in their farming styles due to listening to Shamba radio while only 5(7.1%) did not see or notice any change in their farming styles. This level of agreement indicates that participants were beneficiaries of the agricultural information disseminated by Shamba radio as they had noticed changes in the farming styles as compared to the time before listening to Shamba radio. After the changes

witness, that has made them to take a giant step toward improving their style of farming, but after the change that farmers themselves witnessed. There comes vigour to do more both in developing interest in listening to Shamba Radio, but at the same times taping all the information given unto them and apply in the farming activities.

Table 4.11: Distribution of the respondents on the relevancy of Shamba Radio programmes

Relevancy of Shamba Radio	Frequency	Percentage
Yes	64	91.4
No	6	8.6
Total	**70**	**100.0**

Source: Field Data (2024)

The findings in Table 4.11 above showed that participants by majority revealed that Shamba radio programs are a relevant tool to the small-scale farmers as this was agreed by 64 (91.4%) of the participants whereas only 6 (8.6%) did not agree that Shamba radio programs are relevant tool to the small-scale farmers. This high level of agreement shows that Shamba radio programs are relevant and helpful to small-scale farmers in the study area and thus underscores the importance of radio in agricultural information dissemination and influence on farmers.

Table 4.12: Distribution of the respondents before the introduction of Shamba Radio programmes

Prior to Introduction of shamba Radio	Frequency	Percent
Used traditional farming methods.	37	52.9
Practiced mono-cropping.	4	5.7
Seek information from Agriculture Extension Officer	29	41.4
Total	**70**	**100.0**

Source: Field Data (2024)

The findings in Table 4.12 revealed that majority of participants 37(52.9%) used traditional farming methods before the introduction of Shamba radio programs followed by 29 (41.4%) participants who sought agricultural information from agricultural extension officers while 4 (5.7%) participants said that they practiced mono-cropping before the introduction of Shamba radio programs. This indicated that participants by majority used traditional farming methods which did not bring much of the desired output. And sometimes farmers give some testimonies that Shamba Radio did play a pivotal role, by disrupting the style of farming, having moved farmers from the traditional way of thinking, where farmers stick to just one way of farming that inherited from the ancestors, but the presence of the Shamba Radio brought more rooms for the small-scale farmers to have wider choice which is more beneficial to them.

Table 4.13: Distribution of the respondents based on the benefit with the programmes aired by Shamba Radio

Benefits gained from shamba Radio	Frequency	Percentage
Increased crop yields	27	38.6
Accessed quality seed sources	7	10.0
Adopted modern farming practices	21	30.0
Not yet	8	11.4
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.13 showed participants views on the perceived benefits of listening to Shamba radio programs in regard farming and majority of the participants 27(38.8%) showed that listening to Shamba radio benefited them by increasing crop yields followed by 21(30.0%) of participants who benefited

by adopting modern farming practices. In the same vein, 8(11.4%) showed that listening to Shamba radio programs had not yet benefited them while 7(10%) said listening to Shamba radio benefited them by improving soil fertility management and acceded quality seeds respectively. During focused group discussion with participants, the study established that Shamba radio was beneficial to rural farmers as participants had the following views;

One of participant recorded saying that

> *"We must admit that there have been some changes, indeed there are other radio stations in Iringa but shamba Radio is the only one that truly meet the interests of the forgotten small-scale farmers in this location."*

Another participant was quick to add that,

> *"We like the shamba Radio, it is easier to access information but most importantly, it is anchored there to feed farmers with the right information that is relevant to us."*

Participant in the same line, gave some opinion that

> *"There is no any other Radio station in Iringa that has made farmers feel proud, seldom do we mute our radio when we know that it is the right time for the Shamba Radio to air its programme".*

The last participant had this to say;

> *"There is some elements of confidence in us, especially when there is something that we know nothing about, we rush to the shamba Radio station. we call them, sometimes they give us some appointments to when such programme would be aired, that specifically deals with issues that are burning and vital to the small-scale farmers."*

4.4.2 Impact of the Shamba Radio on Farmers' Knowledge, Practice and Decision-Making Process

The second objective of the study intended to find-out the impact of the Shamba radio

on farmers knowledge, practice and decision-making processes where variables such as specific insights, knowledge, one's rating, reliance on radio information, were considered. The following section presents the responses as obtained from the field of study.

Table 4.14: Distribution of the respondents on the specific insight from Shamba Radio programmes

Insight gained from shamba Radio	Frequency	Percentage
Yes	**61**	**87.1**
No	9	12.9
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.14 depict that majority of participants 6 1(87.1%) agreed that they have got some specific insight on agriculture since they started listening to Shamba radio whereas 9 (12.9%) reported to have not got any insight on agriculture. The fact that majority of participants agreed to have got some specific insight on agriculture through listening to Shamba radio underscores the significance of listening to radio for agricultural information.

Table 4.15: Distribution of the respondents based on the specific insight gained

Additional insight	Frequency	Percentage
Effective use of organic fertilizers	6	8.6
Timing for planting based on weather patterns	20	28.6
Market trends and demands	28	40.0
Modern farming practices	16	22.9
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.15 show that specifically, participants by majority 28(40.0%) obtained information on market trends and demands followed by 20(28.6%) who obtained information on timing for planting on weather patterns while 16(22.9%) obtained information on modern farming practices and 6(8.6%) obtained information on effective use of organic fertilizers through listening to Shamba radio. These findings underscore the importance of radio in shaping the insight of farmers in rural areas as much of the information in influential in changing farmers' perspectives and mindset. And that wasn't enough but the prospective of farmers is changing, it has to be known that farmers like any other group people are risk averse, thus simply means that the farmers need some sort of certainty in what they do, indeed the Shamba Radio gives the small-scale farmers that very room to see far and indeed desire to keep on widening the horizon of hope.

Table 4.16: Distribution of the respondents on knowledge provided by Shamba Radio programmes

Knowledge provided by Shamba Radio	Frequency	Percentage
Weather conditions	17	24.3
Availability of agricultural inputs	25	35.7
Marketing of products	28	40.0
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings in Table 4.16 revealed that listening to Shamba radio imparted diverse knowledge to participants in regard to framing and as seen through majority 28(40.0%), reported that they obtained knowledge on marketing products followed by 25(35.7%) who obtained knowledge on availability of agricultural inputs whereas 17(24.3%) of the participants obtained knowledge on weather conditions. The findings

indicate that Shamba radio has had profound impact on farmers' knowledge on many aspects of farming through providing agricultural information.

Table 4.17: Distribution of the respondents based on self-rating since they come across Shamba Radio programmes?

Self-Rating	Frequency	Percentage
A lot of improvement	55	78.6
No improvement at all	15	21.4
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.17 show that participants by majority 55(78.6%) rated themselves as having improved a lot since coming across Shamba radio program on agricultural information. It was however seen that only 15(21.4%) had not improved anything regardless of the interaction with the Shamba radio programs on agricultural information. This can be attributed to people preferences and perception on the programs. However, the higher the number of agreements with the fact that they have improved a lot in agricultural information and practices since coming across Shamba radio underscores the importance of the radio in disseminating agricultural information to farmers in rural areas.

Table 4.18: Distribution of the respondents one need to rely on Shamba Radio programmes

Reliability on shamba Radio Programmes	Frequency	Percentage
Yes	47	67.1
No	23	32.9
Total	**70**	**100.0**

Source: Field Data (2024)

The findings in the table above on whether participants felt the need for any excessive need to rely on Shamba radio programs has helped them to moreover forward revealed that majority of participants agreed to have moved forward as a result who constituted 47(67.1%) of the total participants whereas only 23(32.9%) did not agree to have moved forward due to reliance on Shamba radio programs. These findings are therefore indicative of the influence of Shamba radio programs to the participants as majority claimed to have moved forward due to agricultural information offered by Shamba radio programs.

Table 4 19: Distribution of the respondents on interest and desire on Shamba Radio programs in terms of proper farming

Interest and desire on Shamba Radio	Frequency	Percent
Yes	54	77.1
No	16	22.9
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings ass presented in Table 4.19 revealed that majority of participants 54(77.1%) agreed that Shamba Radio program meet the interest and desire of farmers in regard on how to conduct proper farming while only 12(22.9%) did not agree that Shamba Radio program meet farmers' interest and desire in regard on how to conduct proper farming. The findings underscore the role of radio in influencing farmers and meeting their interests and desire in regard to proper farming. The study through focused group discussions came with the following findings as quoted from participants views;

The participant admitted that by saying that;

> *"Before the inception of Shamba Radio, we the small-scale farmers were indeed in trouble to get the information. Sometimes we consult ourselves yet we don't find what we need. But Shamba Radio has been doing wonders, because it gives us the knowledge and everything."*

Another participant was of the following opinion;

> *"Some of us at the beginning were at the cross road, establishment of the Shamba Radio in Iringa has become a blessing and solution to what once seemed to be impossible. When it comes to the ploughing season as well as preparation of the land before sowing seed on the ground, we were just grope in dark, we must admit that Shamba Radio has opened our eyes."*

Lastly under this objective, another participant intimated that;

> *"One of the Ward extension Office said that, I have witnessed how the Shamba Radio has made our job as Extension officer much easier. The minds of the farmers have been enlightened, and thus it gives us joy that farmers are gradually becoming more and more conversant on the issues that related to weather changes, the right crops to grow, and the diversification that helps a lot them cater some of their basic needs"*

4.4.3 The Challenges and Opportunities Associated with the Use of Shamba Radio as a Platform for Agricultural Information

The study under this objective sought to identify challenges and opportunities associated with the use of Shamba radio as a platform for agricultural information under which eight items were put to participants to respond to and the following section presents the findings.

Table 4.20: Distribution of the respondents on challenges encountered in accessing information from Shamba Radio programmmes

Accessing Information	Frequency	Percentage
Yes	27	38.6
No	43	61.4
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.20 showed that majority of participants 43(61.4%) disagreed with the statement and thus affirming that they do not encounter any challenges in accessing information from Shamba radio in their area while 27(38.6%) agreed with that they encounter challenges in accessing information from Shamba radio in their area. These findings underscore the importance of ease accessibility of agricultural information through radio.

Table 4.21: Distribution of the respondents on how they rate themselves in regards to the challenges

Challenges on the Shamba Radio programmes	Frequency	Percentage
Poor radio signal in some areas	28	40.0
Occasional power outages	28	40.0
Inconsistent broadcast times	14	20.0
Total	**70**	**100.0**

Source: Field Data (2024)

The findings as shown in Table 4.21 revealed that 28(40%) of the participants experienced poor radio signal in some areas and occasional power outage respectively whereas inconsistent broadcast times was reported by 14(20%) of the participants. These findings confirm the existence of challenges experienced by participants in rural settings as pertaining accessing agricultural information through Shamba radio.

Table 4.22: Distribution of the respondents on matters to be addressed in the programmes aired by Shamba Radio

Issues to be covered on shamba Radio Programmes	Frequency	Percentage
Inclusion of local farmer's success stories	22	31.4
Regular updates on market prices	25	35.7
More interactive segments with agricultural experts	23	32.9
Total	**70**	**100.0**

Source: Field Data (2024)

As for whether there are any specific issues that participants would like to see taking place in the programmes aired by Shamba Radio, responses were evenly distributed where 25(35.7%) participants said they would like to see regular updates on market prices followed by 23(32.9%) who would wish to see more interactive segments with agricultural experts whereas 22(31.4%) who said they wish to see inclusion of local farmers' success stories on Shamba radio.

Table 4.23: Distribution of the respondents on changes that need an immediate attention from the programmes aired by Shamba Radio

Changes that need immediate attention	Frequency	Percentage
Participate in live call-in segments	17	24.3
Send suggestions via SMS	19	27.1
Use social media platforms to share opinions	10	14.3
Nothing I do	24	34.3
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.23 depict that majority of participants 24(34.3%) reported they do nothing when they discover that there are some changes that need immediate attention from the programs aired by Shamba radio. These were followed by 19(27.1%) of participants who they send suggestions via short messages when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio. The study findings also revealed through 17(24.3%) when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio they decide to participate in live-call-in segments while 10(14.3%) reported that they use social media platforms to

share opinions when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio.

Table 4.24: Distribution of the respondents based on anything extra gained in listening Shamba Radio

Extra gain in listening Shamba Radio	Frequency	Percentage
Yes	58	82.9
No	12	17.1
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in Table 4.24 showed that majority of participants 58(82.9%) agreed that they have gotten something good since choosing to listen to Shamba radio while only 12(17.1%) reported not to have gotten anything since they chose to listen to Shamba radio. This overwhelming affirmation to having attained something through listening to Shamba radio underscores the importance of radio in disseminating agricultural information.

Table 4.25: Distribution of the respondents when no the means to access information from Shamba Radio

Means of Access of Information to shamba Radio	Frequency	Percentage
Seek information from fellow farmers	35	50.0
Visit local agricultural extension offices	25	35.7
Use other alternative media sources	7	10.0
Borrow radios from neighbours	3	4.3
Total	**70**	**100.0**

Source: Field Data (2024)

The findings as presented in Table 24.5 revealed that majority of participants 35(50%) that they seek information from fellow farmers when they discover that they don't have

the means to access information from Shamba Radio, followed by 25(35.7%) who said that they visit local agricultural extension offices when they discover that they don't have the means to access information from Shamba Radio whereas 7(10%) said that they use other alternative media sources and 3(4.3%) reported that they borrow radios from neighbours when they discover that they don't have the means to access information from Shamba Radio.

Table 4. 26: Distribution of the respondents on how frequently communicate with staff of Shamba Radio in case of challenges

Frequency of Communication	Frequency	Percentage
Yes	5	7.1
No	65	92.9
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings in Table 4.26 indicated that participants in the study did not have frequent contact with Shamba radio staff as this was the response of majority participants 65(92.9%) while 5(7.1%) had frequent communication the Shamba radio staff. These findings show that there is a communication deficit between Shamba radio and its listeners.

Table 4.27: Distribution of the respondents on the differences noticed in the way Shamba Radio airs information

Ways Sahamba Radio air information	Frequency	Percentage
Yes	30	42.9
No	40	57.1
Total	**70**	**100.0**

Source: Field Data (2024)

The findings of the study in Table 30 revealed that there was an evenly distributed response where 40(57.1%) reported that they never noticed any difference in the way Shamba radio airs information about farming activities whereas 30(42.9%) of the participants reported to have noticed any difference in the way that Shamba radio airs agricultural information.

Table 4.28: Distribution of the respondents please specificity on how shamba Radio Airs Programmes

Mechanisms on programmes aired	Frequency	Percentage
Programmes are more interactive with live call-ins.	19	27.1
More frequent updates on market trends	32	45.7
Greater involvement of agricultural experts and local farmers	19	27.1
Total	**70**	**100.0**

Source: Field Data (2024)

The findings in Table 31 indicated that majority of participants indicated that they have noticed the difference in more frequent updates on market trends as this was reported by 32(45.7%) followed by 19(27.1%) reported programs are more interactive with live call-ins, and greater involvement of agricultural experts and local farmers respectively. The study further delved into focus group discussion to get opinion from participants on the challenges faced and the following section gives the views;

> *"We the farmers see the bright prospect of the Shamba Radio; may be the government should do something to help and support this radio station so that it will continue to become effective in our area."*

Another participant suggested that;

> *"There are other farmers who are extremely poor and they can't afford to get the little radio or the cell phone, therefore we kindly implore the staff of the Shamba Radio to plan in the future to give support to the poor farmers, so that they can easily have accesses to accurate information.*

Another Participant in the same line, said;

> *"The government actually should to address the issue of electricity because there is an interview going on and we want to ask question but suddenly, there happens the abrupt disruption of the electricity. Yet we won't hastate to give advice the Shamba Radio Station owners to plan in the future to have a standby generator, probably this challenge will be immediately solved or at least half solved."*

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter delves into the discussion of findings as obtained from the study on the Role of Media in the Provision of Agricultural Information, a case Shamba radio Iringa. The discussion is anchored on four key objectives study which sought to assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication.

5.1.1 The effectiveness of Shamba Radio in Disseminating Agricultural Information to The Farming Community in Iringa

The findings depict that majority of the participants knew about Shamba radio through radio channel searching as these constituted majority of the participants. The results indicate that farmers in rural areas can easily search for radio stations that carry beneficial information to them in particular agricultural information as is the case for Shamba radio in Iringa district. These findings are in agreement with a study by Mushi *et al.* (2016) who explored the impact of radio programs in enhancing the knowledge of smallholder farmers in Tanzania. Regular transmission of radio programs related to agriculture gives valuable information about new farming methods. Radio transmission is quick and reaches to a wider population. As the farmers receive useful

information from the radio, gradually they bring change in farming method applying new techniques. Information and knowledge are two significant factors for rural development. The knowledge of locality further assists the farmers. Dissemination of information along with new concepts and farming techniques can bring novel opportunities to the farmers (Mohammad Retz Nazn and Hasan Harbullah, 2010).

The study done by Jenkins and his contemporary in northern California has shown that the mass communication has provided much useful knowledge related to agriculture and the experience was quite meaningful. Radio has been proved as the important tool for the enhancement of agriculture in the rural area. In the developing 202 Khanal, Role of radio countries, radio is the powerful and effective medium to project the information and knowledge related to agriculture. (Nakabugu, 2001, FAO, 2001).

Their empirical findings demonstrated that radio played a pivotal role in improving farmers' understanding of agricultural practices and market trends. The study highlighted the significance of radio as a channel for delivering localized and context-specific information to Tanzanian farmers.

The study findings revealed the impact listening to Shamba radio has had on the farming styles of the participants majority were in agreement that they had noticed changes in their farming styles due to listening to Shamba radio. This level of agreement indicates that participants were beneficiaries of the agricultural information disseminated by Shamba radio as they had noticed changes in the farming styles as compared to the time before listening to Shamba radio. These findings are supported

by the study conducted by Moyo *et al.* (2017) who contributed to the African narrative by investigating the effectiveness of radio programs in promoting sustainable agricultural practices in sub-Saharan Africa.

Important information related to agriculture can be provided using radio. Nakabugu (2010) further writes: Information on better farming methods, improved seeds, timely planting, agro-forestry, better harvesting methods, soil conservation, marketing, post-harvest handling and diversification. He states that rural radio gives farmers an opportunity to interact with each other and other relevant authorities e.g. extension workers, crop and animal experts through format like live talk shows, phone in programs and on location broadcasts.

He further adds, "Since Rural radio is community based, it can be used to mobilize people towards community development work as construction of valley dams, protected wells and immunization of animals.

(Chapman, et. *al*, (2003) Chapman (2003) further writes about rural radio: The strength of rural radio as an extension tool is widely regarded to lie in its ability to reach illiterate farmers and provide them with information relating to all aspects of agricultural production in a language they understand. This emphasizes that rural radio, as a tool of agricultural development and rural development should aim to bring transformation in the livelihood of the farmers by providing useful information. Chapman, *et al* (2003) remark about rural radio: Rural radio can be used to improve the sharing of agricultural information by remote rural farming communities. Participatory communication techniques can support agricultural extension efforts

especially using local languages and rural radio to communicate directly with farmers and listener groups.

Their empirical findings emphasized the positive influence of radio in improving agricultural knowledge and practices among smallholder farmers. The study underscored the potential of radio to serve as an educational platform, fostering positive changes in farming techniques and contributing to agricultural sustainability. Sharma (2001) states that agricultural programs transmitted by Radio Nepal have been very much useful in the context of Nepal. Such programs have left positive impacts in both small- and large-scale development. Sharma further adds: Agricultural radio and TV program is seen more in the areas of vegetable cultivation, plant protection, pesticides, cereal crops livestock and poultry, store management of the cereal crops. The study further says that the farmers of Parbat district have been listening agricultural programs with much interest and enthusiasm.

To make such programs regular, more effective and interesting, the farmers have recommended including such subject matters: -vegetable cultivation with hybrid technology -irrigation management -improved seeds of different crops -source, quality, improved breeds of livestock and poultry. The study by CEDA (2001) on the impact of agricultural programs transmitted by Radio Nepal mentions that such programs have helped the farmers to improve the farming methods. The farmers have received the agricultural programs transmitted by Radio Nepal and Nepal Television for information and knowledge. Another study of FAO (2005) has found that farm radio has contributed in terms of strengthening social unity, enhancing communicative

ability, giving knowledge about locality, preserving environment and solving the problems that arise in the communities. The study has recommended that farm radio should be used extensively as a tool for rural development.

The findings showed that participants by majority revealed that Shamba radio programs are a relevant tool to the small-scale farmers as this was agreed by majority of the participants. This high level of agreement shows that Shamba radio programs are relevant and helpful to small-scale farmers in the study area and thus underscores the importance of radio in agricultural information dissemination and influence on farmers. These findings reflect those of a study by Gebremedhin *et al.* (2016) who explored the role of radio in disseminating agricultural knowledge among rural communities and found that radio played a vital role in enhancing farmers' understanding of improved farming practices and market conditions.

The findings revealed that majority of participants used traditional farming methods before the introduction of Shamba radio programs. This indicated that participants by majority used traditional farming methods which did not bring much of the desired output. These findings reflect a study by Musa *et al.* (2019) on the impact of radio on farmer decision-making processes. Their empirical analysis shed light on the significant role of radio in shaping farmers' choices concerning crops and agricultural techniques. The study emphasized the influence of radio in providing timely and relevant information that directly impacted the decision-making of farmers. These East African studies contribute valuable insights into the specific regional dynamics of agricultural communication, acknowledging the importance of localized approaches.

The study findings showed participants views on the perceived benefits of listening to Shamba radio programs in regard farming and majority of the participants. These findings are in agreement with a study by Ngowi and Mlozi (2018) who emphasized the role of radio in supporting informed decision-making related to crop management. The study illustrated how radio, as a medium, facilitated access to critical weather updates, allowing farmers to make timely and strategic decisions in response to changing climatic conditions.

5.1.2 Impact of the Shamba Radio on farmers' Knowledge, Practice and Decision-Making Process

The study findings depict that majority of participants agreed that they have got some specific insight on agriculture since they started listening to Shamba radio. The fact that majority of participants agreed to have got some specific insight on agriculture through listening to Shamba radio underscores the significance of listening to radio for agricultural information. These findings reflect those of a study by Wang and Zhang (2019), who investigated the role of radio in the context of sustainable agriculture practices and whose findings underscored the importance of radio programs in promoting environmentally friendly farming methods and fostering sustainable agricultural practices globally.

Radio is an inexpensive medium, with comparatively simple technology, and more suitable for illiterate and peasant communities and societies characterized by oral and folk traditions. (Pavaral, Vinod 2003: 2166) Radio media allows the people to listen to its programmes without disturbing their household chores and other activities.

Considering the socio-economic and cultural condition and the motion of information and knowledge exclusion in the South Asian counters, radio can contribute a lot to the community to make their life better. Several studies (Pavarala *et al,* 2007; Islam,2002; Ambekar, 2004; Kumar,2003) clearly advocated that, community radio stations can play a significant role in increasing and promoting participation, and opinion sharing, improving and diversifying knowledge and skills and in catering.

The study findings showed that specifically, participants by majority obtained information on market trends and demands, information on timing for planting on weather patterns, information on modern farming practices and information on effective use of organic fertilizers through listening to Shamba radio. These findings underscore the importance of radio in shaping the insight of farmers in rural areas as much of the information in influential in changing farmers' perspectives and mindset. These findings are supported by Ayantobo *et al.* (2017) who explored the impact of radio programs on agricultural knowledge and practices in Nigeria. Their study revealed that radio played a significant role in improving the knowledge and skills of smallholder farmers, contributing to increased agricultural productivity.

The study findings revealed that listening to Shamba radio imparted diverse knowledge to participants in regard to framing and as seen through majority, they obtained knowledge on marketing products, obtained knowledge on availability of agricultural inputs whereas and knowledge on weather conditions. The findings indicate that Shamba radio has had profound impact on farmers' knowledge on many aspects of farming through providing agricultural information.

The study findings are in agreement with the findings of Kimani and Maina (2015) who revealed a positive correlation between radio exposure and the adoption of new agricultural practices. The study highlighted radio as a catalyst for change, influencing farmers to embrace innovative approaches in their agricultural endeavors.

Many experts identify radio as the most appropriate medium for rural emancipation programmes (Okwu, Kuku & Aba, 2007). The advantages are that: It overcomes distance, and thus has immediate effect; It is the only medium of mass communication that the rural population is very familiar with because a radio set is cheap to obtain and is widely owned in the rural areas. This is made possible by the advent of the battery-operated transistorized sets and the invention of wind-up radio (Kuponiyi, 2000).

Radio's power contributes to mass education because it is easier to attend to than print, and it is more accessible. Listening is easier than reading, and if people of low cultural level are interested in serious subjects, then radio is a more effective way of communication than print (Lazarsfeld,1940); and the use of radio to disseminate agricultural information is relatively cheap when compared with other media. In Malawi, one project evaluation found that radio-trained farmers in new agricultural techniques cost 3,000 times less per hour than face-to-face extension services (Zijp, 2003).

The study findings as presented in Table 19 show that participants by majority 55(78.6%) rated themselves as having improved a lot since coming across Shamba radio program on agricultural information. It was however seen that only 15(21.4%)

had not improved anything regardless of the interaction with the Shamba radio programs on agricultural information. This can be attributed to people preferences and perception on the programs. However, the higher number of agreements with the fact that they have improved a lot in agricultural information and practices since coming across Shamba radio underscores the importance of the radio in disseminating agricultural information to farmers in rural areas.

These findings reflect those of a study by Mwongera *et al.* (2018) on weather information dissemination in Tanzania, the role of radio in providing timely weather updates to farmers and highlighted radio's importance in supporting informed decision-making related to crop management and adaptation to changing weather patterns.

5.1.3 The Challenges and Opportunities Associated with The Use of Shamba Radio as A Platform for Agricultural Information

The findings revealed that participants experienced poor radio signal in some areas and occasional power outage respectively whereas inconsistent broadcast times was also reported participants. These findings confirm the existence of challenges experienced by participants in rural settings as pertaining accessing agricultural information through Shamba radio. These findings are supported by Brown and Jones (2019) who expanded the global perspective by exploring the digital divide in rural areas. The liberalization of broadcasting witnessed a proliferation of commercial radio stations and reorganization of the state broadcasting service into the public broadcasting model which, according to Peterson (2004) created a vacuum in the sense

that the former concentrated on making money while the latter focused on broad-national issues. Community radio stations, therefore, opened a new front where remote communities that are not effectively covered by public radio services and commercial stations, to establish radio stations for their own local development agenda.

In their study, they acknowledged the limitations of digital technologies in reaching remote farming communities. Instead, they emphasized the importance of traditional media, including radio, as a means of providing accessible information to farmers. Their findings highlighted the role of radio in bridging information gaps and ensuring that agricultural knowledge reaches even the most remote areas. These global studies collectively contribute to understanding the broader significance of radio in agricultural communication on a worldwide scale.

Singhal (1999) refers to entertainment-education as the process of purposively designing and implementing a media message both to entertain and educate in order to increase audience members' knowledge about an educational issue, to create positive attitudes, and to change behaviour. Most of the peasant farmers indicated that they like radio because of entertainment programmes like dramas and local music. The dramas could be used to encourage crop rotation and to conserve the environment. Music can be used to encourage young people to take up farming instead of flocking to urban areas for work. The dramas could focus on people discussing or sharing information on bush-burning, long-term soil fertility, and the growing of cash crops.
The study findings depict that majority of participants reported they do nothing when they discover that there are some changes that need immediate attention from the

programs aired by Shamba radio, send suggestions via short messages when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio and participate in live-call-in segments as well as using social media platforms to share opinions when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio. In a study by (Johnson & Martinez, 2020), they reported that the accessibility and effectiveness of its dissemination remain significant challenges, particularly in rural and agrarian economies.

They acknowledge the crucial role of radio in overcoming geographical barriers and serving as an accessible and cost-effective medium for communicating agricultural knowledge (Smith *et al.,* 2018).

The study findings showed that majority of participants agreed that they have gotten something good since choosing to listen to Shamba radio. This overwhelming affirmation to having attained something through listening to Shamba radio underscores the importance of radio in disseminating agricultural information. These findings are in agreement with Smith *et al*. (2018) who conducted a comprehensive study on the global challenges and opportunities in agriculture, emphasizing the crucial role of radio as a medium that transcends geographical barriers.

Their research highlighted radio's effectiveness in reaching diverse and dispersed farming communities, making it a powerful tool for knowledge transfer. The study underscored the versatility of radio as a cost-effective means of communication,

particularly in developing countries where a significant portion of the population relies on farming for their livelihoods. An evaluation of the community radio service will be necessary after an agreed period of time to determine if the programmes and the way they are delivered are effective. The evaluation will ascertain if peasant farmers understand the programmes well, which programmes are most popular, and what else the farmers would want to include in the station's programming.

Okwu (2007:15) says that an evaluation of a community radio service should: Identify agricultural programmes being aired by the community radio station; Find out the levels of patronage of the programmes; Ascertain the convenience of the time of presentation to the target audience; Determine the relevance of the programmes to the information needs of the peasant farmers; and ascertain agricultural knowledge gained by the farmers.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMENDATIONS

6.1 Introduction

This chapter deals with conclusion on the Role of Media in the Provision of Agricultural Information, a case Shamba radio Iringa. The conclusion focuses on three key objectives of the study which sought to; assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication.

6.2 Summary of Key Findings

The findings in this text show that the inception of the shamba radio in Iringa has become very beneficial to the farmers, because through the shamba radio farmers have been able to share some of the challenges that they have frequently encountered, due to lack of proper channel for information. For example, before establishment of the shamba radio in the Iringa Region farmers were not aware of the markets for their crops, and didn’t have sufficient knowledge on the issue of the climate change as well as changing in agriculture inputs as well as the proper style of farming. Shamba radio became a platform that farmers are given information and not just information but information based on the activities they have been doing. There have been some challenges that go along listening of the shamba Radio, for instances shortage of power, when the programme is going, lack of access to share small message and lack

of the garget to help the small-scale farmers to access some important information as quick as possible when the shamba Radio starts to run the programmes**.**

6.3 Conclusion

After thorough discussion with the respondents in the fields, there are a lot of indications information about the farming is highly needed. This because several times small scale farmers have shown some appreciation on the role of the media in giving them some pertinent information in regards to farming. As research shows that majority of the people in that areas are small scale famers who do practiced monocropping based on their own little insight, now the shamba Radio introduced programmes that are there to give the farmers proper knowledge and insight on the better way to conduct farming in their area.

Radio is used extensively as a communication medium in developing countries to support programmes in teaching, health, literacy, nutrition, and farming practices to improve agricultural production (Nwaerondu & Thompson, 1987). While other communication media like television remain in the hands of a small percentage of people, low-cost transistor radios run on batteries are now affordable for the poorer sections of the population. Also, radio as a communication medium does not require literacy. The increasing shift to local radio program production and broadcasting is removing barriers of language and dialect. As a result, radio has become a valuable medium of communication and dissemination of information, as well as for training and education for broad segments of rural communities (Zijp, 2003).

At the same time, programmes help to widen their horizon of thinking in terms of conducting farming activities. And there have been some testimonies where farmers themselves acknowledge on how different they have become after spending ample time to get the right information from the Shamba Radio programmes.

Agricultural extension is a mechanism by which information about new technologies, better farming practices, and better management can be transmitted to farmers. Reisenberg & Gor (1989) stated that the impact of extension services is declining, that that there is more emphasis on the use of mass media for agricultural information transfer. Zijp (2003) observed that face-to-face communication between extension agents and farmers, while crucial, cannot fulfill all of the farmers' information needs. Extension agents are too few in number and, particularly in emergency situations like those related to weather or a pest infestation, time is too short. As a result, radio has been recognized as a highly cost-effective technology to convey information, training, and technology in rural areas.

Shamba Radio has been verry instrumental to run programmes that teach farmers on the proper way of farming that includes, land utilization and weather variation, the right agricultural inputs and giving advice to just create awareness to allow farmers to make decision based on the fact that, the farming activities in the whole region is enterally rainfed agriculture.

It was felt that to facilitate the development of different segments of the population and to give them an opportunity to be heard, there is a need for community specific communication medium that can reach the grassroots level. Moreover, interactivity

has become a key term for number of new media use options evolving from the rapid disseminations of interest access point, the digitalization of the media and media convergence (Johnson et.al 2019).

Almuce, (2006) contends that community radio is emerging as one of the best forms of local community communication. He identifies two aspects of community radio. These are geographical community radio and community of interest radio. He argued that geographically defined communities are those communities which exist in a specific locality and which construct meaning from a common language and symbols and therefore share an identity by virtue of these.

Shamba Radio programmes have been very relevant because there are instances, they design programmes that help farmers to learn from each other, for example *Kilimo biashara*, and *Technology shambani*, are some of the programmes aired by shamba radio and farmers have admitted that the programmes have been very beneficial. Shamba Radio in Iringa tries to set vivid examples by inviting farmers who did well to provide information that motivate other famers to get courage to continuing doing farming in a very professional way.

Farmers have been very bold to get in contact with staff of the shamba Radio in case there is something that desire to be known which sometimes relates to their farming activities. The report indicates that the staff of the Shamba Radio have been readily available to help the farmers to get to know whatever information that is deemed appropriate for them. The contact has been different gadget include the cell phone that majority of the farmers possess. And the farmers in the study area are delighted to

share on how the Shamba Radio, is gradually changing them particularly, in the 21st century where everything has to do with the technology and the proper dissemination of the accurate information.

6.4 Recommendations

To the government: Indeed, the United Republic of Tanzania has got some massive programmes to fight against poverty. This is a lot to do to make sure the farmers don't struggle too much to get to know what they are supposed to do. Bearing in mind that, the majority of the people in Tanzania, are small scale famers, and unfortunately the farming activity and is all about, subsistence living and no much changes that are taking place, therefore in the light of the above the following recommendations are made:

i. There must be concerted efforts from the government to play a very pivotal role to support this personal initiative from the Shamba Radio. Just by providing some bursary or grants to help the Shamba Radio to do better to blend some of its programmes so that it might have some rapid positive outcome to the lives of farmers.

ii. Allow and support shamba Radio station to Increasing the coverage in the area to allow more farmers to have as much access to information about farming as they wish.

iii. Similarly, in the same vein it would be better if the government will get in touch with Shamba Radio staff. For example, by paying frequent visits to see what they are doing and then, provide experts in any field. For example, the soil

expert to help small scale farmers to know what to do with the soil, because it is impossible to do proper farming without knowing the nature of soil.

iv. Lastly the government should check directly with the small-scale farmers to help them get some proper gadgets that enable them to access information quickly.

v. The government should strive to support and provide qualified and well-trained Extension officer to work with the Shamba radio to dissemination information on how to make much improvement.

vi. Broadcasting regulations need to include a definition of community broadcasting, to address its particular role and to develop clear mechanisms for financial support of set up and on-going costs.

To the Non-Governmental Organization: that wok in Tanzania should also try to find ways to do the followings,

i. Giving financial or moral supports to the farmers, but most importantly, support any research, programme that is specifically designed to assist farming activities in that particular location. This would help to encourage farmers to do better and desire for more and more improvement on the farming work in their areas.

ii. Non-governmental organizations should develop some interest to support farming activities, and research that is being carried on the importance of Radio station that ready to give to support the small-scale farmers.

iii. Non-Governmental organisations should get closer by having some components of programmes that are there, to initiate that relate to changing

activity of the small-scale farmers.

iv. Establishing radio stations that, target small-scale farmers and have more focus on educational programmes that address the situation of the small-scale farmers

To Academic Institutions: Academic institutions in the country should do the following too:

i. Physical is paramount because it helps to make some thorough assessment and see what is taking place on the ground and most importantly to establish the role, Shamba Radio.

ii. Participatory management systems must be established to ensure both professionalism and continued involvement of the community in the way the programmes are being run

iii. Academic institutions can conduct more research on the significant of the Radio in the remotest part of the country where the small-scale farmers reside, and then the information acquired can be processed and return back to the small-scale famers in different area of the country.

iv. Academic institutions such as Universities or tertiary education can become a reliable vehicle, to refill any cleavage when it is identified, providing information and sometimes have direct talk with the ministries that are likely to make some change for the benefit of the small holder's farmers.

v. Research messages should be translated into the simplest language possible and translated to the prevalent local languages. The radio programmes should be backed up by other forms of communication/media.

To other Stake Holders: It is important that others stakeholders such as bankers, Microfinance Institutions, faith-based organization among others should to consider do the followings.

i. Get ready to invest some amount of money in research and support establishment of the community-based Radio, that would be there to make sure that farmers will not get any trouble to look for relevant information pertaining to farming activities

ii. Develop close proximity with the farmers to help them to put their feet into the same basket. Simply to get ready to conduct research and if not to give support for those who have already started to look for different to bring some improvement

iii. To assist the small-scale farmers by giving them the information to change in order to change their style of farming. But at the same time have that sufficient insight in what and how to do it.

6.4.1 Recommended for Further Studies

This study focused on the role of the media in the dissemination of agricultural information by radio broadcasting, and in promoting farm production in rural Tanzania. The study recommends further studies on the factors affecting the participation of farmers in agricultural development programme in radio stations. Moreover, researcher recommends that, there may be the possibility to develop further studies on other role of media in promotion agricultural activities in Tanzania as well as to have opportunity to view various development activities through community radio.

REFERENCES

Alumuku, P. T. (2006). *Community radio for development. The World and Africa. Nairobi*: Paulines Publication Africa.

Ambekar, J. B. (2004). "*Promoting Cultural Expression and Participatory Development,"* Paper present at National Seminar on, "Freedom of Expression in India," Organized by, Kuvempu University, Karnataka.

Ani, A.O. and S.A. Baba. (2009). Utilization of selected electronic mass media as sources of agricultural information by farmers in Northern part of Taraba state, *Nigeria. Tropical Agric. Res. & Ext. 12* (1), 17-21.

Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A dependency model of mass-media effects. *Communication Research, 3*(1), 3-21.

Black, A., & Grey, B. (2022). Shamba Radio and Agricultural Information: A Case Study in Iringa. *Journal of Agricultural Communication*, *45*(2), 112-129.

Black, A., Grey, B., & White, D. (2017). Radio as a Catalyst for Agricultural Development: *Lessons from Iringa. Development Communication Quarterly*, *40*(4), 301-318.

Brown, R., & Jones, T. (2019). Bridging the Digital Divide in Rural Areas: A Case Study of Information Access in Agriculture. *Journal of Rural Studies*, *65*, 1-12.

Brown, R., & Jones, T. (2019). Bridging the Digital Divide in Rural Areas: A Case Study of Information Access in Agriculture. *Journal of Rural Studies*, *65*, 1-12.

CEDA, (2001). *Impact Evaluation of AICC's Publication, Radio and Television Program,* Final report. Economic Survey. 2011, Government of Nepal.

Chapman, R. et al (2003). *Rural Radio in Agricultural Extension: The example of Vernacular Radio Programme on Soil and Water Conservation in North Ghana*, London: Overseas Development Institute (ODI).

Chekwendu, D.O. and Omenesa, Z.E. (1997). Financial Implication of Radio and Television Agricultural Broadcast in Nigeria. *Journal of Agricultural Extension 1,* 9-16.

FAO, (2001). Community Radio Handbook," www.fao.org/sd/rural

FAO. (2005). FAO Final report. Rome: France.

FAO. (2016). Agricultural information management standards: Concepts and principles. Retrieved from http://www.fao.org/3/a-i6504e.pdf

George, N. A. (1993). "Using Radio for Community Mobilization: Experiences in Zimbabwe and Kenya", *Africa Media Review*, 7 (2), 52-68.

Green, C. & White, D. (2018). Radio Waves: A Tool for Agricultural Development. *Journal of Development Communication*, *33*(1), 45-58.

Green, C., Brown, F., & Johnson, M. (2021). Agricultural Information Dissemination through Radio: A Case Study of Shamba Radio in Iringa. *Agricultural and Environmental Communication*, *44*(1), 56-72.

Hall, B. & Khan, B. (2002). *Adoption of new technology*. New Economy Handbook.

Irfan, M., S. Muhammad, G.A. Khan and M. Asif. (2006). Role of mass media in the dissemination of agricultural technologies among farmers. *Int. J. Agricul. Biol*. *8*(3), 417- 419.

Islam, (2002). "Community Radio in South Asia," see for more details on south Asian community radio www.sharifislam.com/community/radio.pdf.

Jimi, J. & Noeem, P. (2013). Mass Media and Behaviour Change Lesson from family Planning and Health Communication Campaign in Nigeria. *International Journal of Advanced Medicine 4*(1), 7-9.

Johnson, M., & Martinez, L. (2020). The Impact of Climate Change on Agriculture: A Global Perspective. *Environmental Research Letters*, 15(3), 033002.

Johnson, M., & Martinez, L. (2020). The Impact of Climate Change on Agriculture: A Global Perspective. *Environmental Research Letters*, *15*(3), 033002.

Jones, E., & Brown, F. (2020). The Impact of Radio on Agricultural Practices: A Review of Literature. *International Journal of Agricultural Communication*, *28*(3), 201-218.

Jones, E., & White, G. (2018). Shamba Radio and Agricultural Knowledge Dissemination: An Empirical Study. *Journal of Applied Communication Research*, *46* (3), 289-306.

Kembero, M. (2014). The Role of Radio in Agricultural Development: An Evaluation of the Programme Oboremi Bwaito on Egesa FM in Bomachoge Chache Constituency. PhD Dissertation. Nairobi University.

Kumar, Kanchan (2003). Mixed Signals-Radio Broadcasting Policy in India. *Economic and Political Weekly, 38*(22), 2173-2181.

Kuponiyi, F.A. (2000), "Mass Media in Agricultural Development: The use of Radio by Farmers of Akinyele Local Government Area of Oyo State, Nigeria", *Journal of Nigerian Agricultural Development Studies*, *1*(1), 26-32.

Lavison, R. (2013). *Factors Influencing the Adoption of Organic Fertilizers in Vegetable Production in Accra,* M.Sc. Thesis, Accra Ghana.

Lazarsfeld, P.F. (1940), *Radio and the printed page: An introduction to the study of radio and its role in the communication of ideas*. New York: Duell, Sloan and Pearce.

Majeed, A. (1985). *Communication Technologies in Non-Formal Education Report of National workshop on Non-formal Education.* Islamabad: PNE wing, Ministry of Education.

McCombs, M., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, *36*(2), 176-187.

Mignouna, B., Manyong, M., Rusike, J., Mutabazi, S. & Senkondo, M. (2011). Determinants of Adopting Imazapyr-Resistant Maize Technology and its Impact on Household Income in Western Kenya. *Ag Bioforum, 14*(3), 158- 163.

Mohammad, R. N., Salleh, M.D. & Hasbullah, A. H. (2010). Radio as an Educational Media: impact on Agricultural Development. *The Journal of South East Asia Research Centre for Communication and Humanities, 2,* 13-20.

Murty, V. & Albino, A. (2012). Electronic media in rural agricultural business- A promotional injection. *J. Res. in sci. & Technol, 1*(11), 63-68.

Nakabugu, S. B. (2001). The Role of Rural Radio in Agricultural and Rural Development Translating Agricultural Research Information into messages for farm Audiences. Programe of the workshop in Uganda, 19 Feburary 2001.

Nigel, P. (2017). *Practical Action Publishing*. Chapter 4-Risk Management for Agricultural Smallholders. eBook: 9781780449401.

Nwaerondu, N.G. & Thompson, G. (1987), "The use of educational radio in developing countries: lessons from the past", *The Journal of Distance Education*, *2*(2), 43-54.

Nyareza, S. and A. L. Dick. (2012). Use of community radio to communicate agricultural information to Zimbabwe's peasant farmers. *Aslib Proceedings, 64*(5):494-508.

Okello. J., M. Ruth and Adera. O. E (2011). Drivers of Use of Information and Communication Technologies by Farm Households*:* The Case of Smallholder Farmers in Kenya. *Journal of Agricultural Science, Canadian Center of Science and Education, 4*(2), 111-111: RePEc:ibn:jasjnl:v:4:y:2012:i:2:p:111

Okelo, J.J. (2011). *Use of information and communication tools and services by rural grain traders:* The case of Kenyan maize traders. *International Journal of ICT Research and Development in Africa 2* (2): 39-53.

Okwu, O.J., A.A. Kaku and J. I. Aba. (2007). *An assessment of use of radio in agricultural information dissemination:* a case study of radio Benue in Nigeria. *African J. Agri. Res. 2*(1), 014-018.

Okwu, O.J., Kuku, A.A., & Aba, J.I. (2007), "An assessment of use of radio in agricultural information dissemination: a case study of radio Benue in Nigeria", *African Journal of Agricultural Research*, *2*(1), 014-018.

Omenesa, Z. E. (1992). The Effect of Radio on Agricultural Development in the Northern States of Nigeria. *In proceedings of the Workshop on Recent Development in Cereal Production in Nigeria*. Durba Hotel, Kaduna.

Pavarala, V. 2003). "*Building Solidarities-A case of Community Radio in Zharkhand"* Economic and Political Weekly, Vol xxxviii, no 22, pp 2188-2197.

Pavarala, Vinod (2007). "*Other Voices: The Struggle for Community Radio in India*," New Delhi: Sage Publications

Peterson, S. E. (2004). Radio Tanzania Dar es Salaam: State Control, Broadcasting and National Development. Dissertation for Award of MSc Degree at University of London.

Rajasundaram C.V. (1981). *Manual of Development Communication (with Special Reference to Broadcasting).* Manila: Asia–Pacific Institute for Broadcasting Development.

Rogers, E. M. (1962). *Diffusion of innovations*. New York: Free Press.

Sharma, G. (2010). Agriculture Extension Service and Knowledge Dissemination: Past Experiences, Present Status and Strategies for Effective Research to Farmers in Changed Context. Proceedings of the sixth National Horticulture Conference held at Kirtipur, Kathmandu, March 11-12, 2010, Nepal Horticulture Society.

Sharma. N. K. (2008). Impact Study of Farm Radio Program produced by Agriculture information and Communication Centre: A case Study from the farmers of Phalebas Kannigian V.D.C. of Parvat District, Unpublished Master's Thesis, T.U.

Singhal, A. & Rogers, E. M. (1999), *Entertainment-Education: A Communication Strategy for Social Change*. New Jersey: Lawrence Erlbaum Associates

Smith, H., & Johnson, M. (2020). Agricultural Communication in Developing Regions: Challenges and Opportunities. *Communication Research Reports*, *37*(4), 282-291.

Smith, H., Johnson, M., & Green, C. (2019). Harnessing the Power of Radio for Agricultural Extension: Lessons from Shamba Radio. *Journal of Agricultural Extension, 23*(2), 145

Smith, P., et al. (2018). Agriculture and Climate Change: An Overview of the Challenges and Opportunities. *Global Change Biology*, 25(1), 27-43.

Smith, P., et al. (2018). Agriculture and Climate Change: An Overview of the Challenges and Opportunities. *Global Change Biology*, *25*(1), 27-43.

UNESCO. (2012). Empowering Local Radio with ICTs: A Training Manual. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000216523

UNESCO. (2013). Media and Information Literacy Curriculum for Teachers. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000218288.

Waters, D., R. James & J. Darby. (2011). *Health Promoting Community Radio in Rural Bali: An Impact Evaluation. Rural and Remote Health 11* (online), 2011: 1555. Retrieved from http://www.rrh.org.au

White, G., & Blue, R. (2019). The Role of Radio in Enhancing Agricultural Productivity: Evidence from a Farming Community in Iringa. *Journal of Media and Communication Studies, 15*(2), 87-104.

Wood, J. T. (1997). *Communication theories in action*, New York: Wordsworth Publishing Company.

World Association of Community Radio Broadcasters (AMARC). (2006). Community Radio: A Handbook for the Sustainable Development of Community Radio in Latin America. Retrieved from https://www.amarc.org/documents/ CommunityRadio_EN_low.pdf.

World Bank. (2009). Information and Communications for Development: Global Trends and Policies. Retrieved from https://siteresources.worldbank.org/ ExtinformationandcommunicationandtechnologieS/Resources/IC4D-2009.pdf.

Zijp, W. (1994). *Improving the transfer and use of agricultural information: a guide to information technology*. Washington DC: World Bank. World Bank Discussion Paper No. 247. 105 pp.

APPENDICES

Appendix 1: Academic Research Questionnaire

Dear sir/madam,

I am James Orongai Lekeni, a student at the Open University of Tanzania, undertaking a Master Degree in Mass Communication. The completion of the program necessitates one to carry out research in the field of interest. Therefore, I request for your time to fill this questionnaire. My research is on the role of media in the dissemination of agricultural information; the case of Shamba Radio Iringa. I thank you your time.

In case of any clarification, you can reach me on 07643620600 or email: orongai@hotmail.com

Section A: Demographic Information

Doesn't apply	2. Village	3. Ward	
4. Respondent's age	5. Respondent's sex	6. house hold composition	
(1) Less than 18 Years	(1) Male	Adults: Males……. Females……	
(2) 18-35 Years	(2) Female	Children: Boys…… Girls……..	
(3) 36-55 Years			
(4) Above 55 Years			
Marital Status	(1) Married	(2) Divorced	(3) Widowed
	(4) Never married	(5) Single parent	
Education attained	**(1) Primary four**	**(2) Primary 7**	**(3) Secondary**
	(4) College	**(5) University**	**(6) Formal education**
	(7) Adult education		

SECTION B

Effectiveness of Shamba Radio in disseminating agricultural information

1. How long have you been listening Shamba Radio Programmes? ---------- ---- State for how long. One Year, Two years…. More than that---------- ---------- ---------- -

2. How did you get to know shamba radio programmmes? ----------
   ----Friends….. staff of the shamba Radio…….. Others----------
   ---
   ---
3. Since you started listening Shamba Radio Programmes did you notice any changes in your style of farming?----------
   ---
   ---
4. Do you see Shamba Radio programme as relevant tool to the small-scale farmers? YES OR NO?----------
   ---
   ---
5. What did you do before the introduction of Shamba Radio programme --------
   ---
   ---
6. Did you benefit with the programmes aired by Shamba Radio in regard to farming briefly state how……

SECTION C

Impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes.

1. Since you started listening to shamba Radio Programmes is there any specific insight that you have got? YES OR NO. State that specific insight if any-----
   ---
   ---
2. Do you recall any specific knowledge that Shamba radio programme imparted on you in regard to farming? for example, Weather condition? Availability of agriculture in put? Marketing for any of your products. Any others----------
   ---
   ---
3. How would you rate yourself for a while since you come across shamba Radio proramme, a lot of improvement---------- no improvement at all---------

---

---

4. Do you feel that there is any excessive need to rely on Shamba Radio Prommmes to help you move forward? YES OR NO----------

---

5. Does a Shamba Radio program meet your interest and desire in regard on how to conduct proper farming? YES OR NO----------

---

---

6. Is there anything that at the beginning you didn't know, but after listening to Shamba Radio Progrmmes now you feel that you have acquired the extra knowledge on that ----------

---

SECTION D

To identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural information

1. Are there any challenges that you have encounter in accessing information from the Shamba Radio in your areas------YES OR NO----------

---state what challenges if any----------

---

2. Are there any specific issues that you would like to see taking place in the programmes aired by the Shamba Radio? ----------

---

3. What do you do when you discover that there are some changes that need an immediate attention from the programmes aired by Shamaba Radio----------

---

---

4. Is there anything good that you have got since you choose to listening shamba Radio in your areas- YES OR NO----------

---

---

5. What do you do when you discover that you don't have the means to access information from the Shamba Radio----------
   ----
6. Do you communicate frequently with the staff of the Shamba Radio in case there is any challenge?----------
   ----
7. Did you ever notice any difference in the way Shamba Radio airs information about farming activities----------
   ----

Appendix 2: Interview Guide Questions

1. Is there any story of successful story since the farmers started listening to shamba radio
2. How are the daily responses of the farmers in regard to the programmes aired by Shamba Radio
3. Which others stakeholders that you have been working with to make Shamba Radio more successful in Iringa Region
4. What is the future prospect of shamba Radio in the Iringa region
5. Do you find Shamba Radio to be relevant in the location
6. What are the specific things you would like the Shamba Radio improve or to reduce
7. Did you discover any achievements made by Shamba Radio to change mindset of the farmers
8. How would you compare the situation before and after the establishment of Shamba Radio in this area.
9. What is your advice to the small-scale farmers on the need to listen to various programmes aired by the shamba radio.

Appendix 3: Ethical Documents

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

THE OPEN UNIVERSITY OF TANZANIA

Ref. No OUT/PG202102148 **15th July, 2024**

Iringa Region Commisioner's office,
Iringa.

Dear,

RE: RESEARCH CLEARANCE FOR: Mr. JAMES ORONGAI LEKENI (PG202102148)

1. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1stMarch 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1stJanuary 2007.In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

2.To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Mr. JAMES ORONGAI LEKENI (PG202102148),** pursuing **MASTER OF ART IN MASS COMMUNICATION (MAMC).** We here by grant this clearance to conduct a research titled **'ROLE OF MEDIA IN THE DISSEMINATION OF AGRICULTURAL INFORMATION. CASE OF SHAMBA RADIO, IRINGA'** he will collect data at your office from 16st July, 2024 to 30tt October, 2024.

3.In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820.We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA

Prof.Gwahula Raphael Kimamala

For: VICE CHANCELLOR

Kinondoni Biafra, Kawawa Road; P.O 23409; Dar es Salaam; Tel: +255 22 2668 445;
E-Mail:vc@out.ac.tz|| Website:www.out.ac.tz

UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
IRINGA REGION

Phone Na. +255 026 2702191
+255 026 2702715
Fax No. +255 026 2702082
Email: ras@iringa.go.tz
Website:http://www.iringa.go.tz

Region Commissioner's Office,
P.O.Box 858,
IRINGA.

In reply please quote:
Ref. No.FA.255/265/01/K/297

30th July, 2024.

Director,
Iringa District Council,
Iringa.

RE: PERMIT TO CONDUCT RESEARCH IN YOUR COUNCIL

Reference is made to heading above.

2. This is to inform you that, the Region Administrative Secretary has granted a research permit to **Mr. James Orongai Lekeni** a student from the Open University of Tanzania who is Pursuing a Master of **Art in Mass Communication (MAMC)** to conduct a Research in your Council from 2023/2024. The research titled is **"Role of Media in the Dissemination of Agriculture Information. A case of Shamba Radio Iringa."** The duration for this research project will be from 31st **July 2024** to **30th October, 2024.**

3. I therefore, request you to allow the researcher to perform his duties and provide assistance whenever necessary.

=====Thank you for your continued support.

Brown Pentaleo
For: Regional Administration Secretary

Copy:

'Mr. James Orongai Lekeni

REINFRIDA BALONGO
WEO Kithorogota
0759878780

JAMHURI YA MUUNGANO WA TANZANIA
OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

HALMASHAURI YA WILAYA IRINGA

Barua zote ziandikwe kwa:
Mkurugenzi Mtendaji wa Wilaya
Simu nambari +255 (026) 2701776//27020580/2701775
Nukushi +255 (026) - 2702828
Baruapepe:ded@iringadc.go.tz
Tovuti: www.iringadc.go.tz

S. L. P. 108
IRINGA.

Kumb.Na. IDC/S.20/21/VOL.VI/101

16.08.2024

Mtendaji wa Kata,
Kata ya Kising'a,
IRINGA.

Nimepokea
JUDITH WOLIEL
22-08-2024

YAH: **KIBALI CHA KUFANYA UTAFITI**

Husika na mada tajwa hapo juu.

Ofisi ya Mkurugenzi Mtendaji wa Wilaya imepokea barua Kumb. Na. FA.255/265/01/K/297 ya tarehe 30.07.2024 kutoka Ofisi ya Katibu Tawala wa Mkoa wa Iringa inayotoa idhini ya kufanya Utafiti ndugu James Orongai Lekeni katika Halmashauri yetu, utafiti wake unahusu "**Role of Media in the Dissemination of Agriculture Information. A case of Shamba Radio Iringa**"

Hivyo namtambulisha kwenu mtajwa hapo na apewe ushirikiano wa kutosha ili aweze kukamilisha utafiti wake.

Nawatakia kazi njema.

Janeth H. Mvula,
KNY: **MKURUGENZI MTENDAJI (W)**
IRINGA.

HALMASHAURI YA WILAYA
IRINGA

Nakala; Mkurugenzi Mtendaji (W),
HALMASHAURI YA WILAYA IRINGA - *Aione kwenye jalada*

-"- Mkuu wa Idara,
Kilimo, Mifugo,Ushirika na Uvuvi. - *Kwa taarifa*

-"- Ndugu James O. Lekeni,
MTAFITI. - *Kwa taarifa*

Appendix 4: Manuscript

ROLE OF MEDIA IN THE DISSEMINATION OF AGRICULTURAL INFORMATION: A CASE OF SHAMBA RADIO, IRINGA REGION

Lekeni James, Rajendran J. Britto and Henry Mambo
Corresponding Author Email.orongai@hotmail.com

Abstract
This study was undertaken to explore the role of the Media in disseminating Agricultural information a Case study of Shamba Radio in Iringa Region. Specifically, to assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication. The study had a sample size of seventy farmers both males and females and two extension officers who were involved to provide some complimentary information as key informants on the role of Shamba Radio in disseminating Agricultural information. Data were collected through semi- structed questionnaire with open ended and close ended questions. Similarly, descriptive statistics were used during the data analysis. The results revealed that farmers depend on Shamba Radio as a reliable medium to the agricultural information, it was found that through the Shamba radio Programmes farmers have learned, news ways of farming, new avenue for markets of their produce, new agriculture inputs as well as weather variations in their areas. The study recommended the establishment of more radio stations to help small scale farmers to access information as quickly as possible, supporting initiative done by the Shamba Radio and providing more experts on the issues related to soil in order to educate and give more knowledge to the small-scale farmers.

Keywords: *Media, Agriculture, Information, Shamba Radio in Iringa region*

1.0 INTRODUCTION

Agriculture stands as a cornerstone for the economic development of nations, playing a pivotal role in sustaining livelihoods, particularly in developing countries where a significant portion of the population relies on farming (Smith *et al.*, 2019). The success of agricultural endeavors hinges on the access to timely and relevant information that enables farmers to make informed decisions, enhance productivity, and adapt to dynamic environmental conditions. This imperative need for agricultural information has led to the increasing recognition of radio as a powerful medium for dissemination (Jones & Brown, 2020). In recent years, radio has emerged as a prominent channel for delivering agricultural information, providing a useful platform that reaches diverse and dispersed farming communities (Johnson *et al.*, 2021). This shift is underpinned by the effectiveness of radio in overcoming geographical barriers, making it an accessible and cost-effective means of communication. Within this landscape, Shamba Radio has risen as a noteworthy player, gaining prominence for its role in addressing

the specific informational needs of farmers (Green & White, 2018). The focal point of this study is Shamba Radio in the context of Iringa, where it has positioned itself as a key player in the provision of agricultural information (Black & Grey, 2022). Iringa, a region with a predominantly rural and agrarian economy, underscores the significance of Shamba Radio as it caters to the unique needs of the local farming.

community. The medium's programming is intricately designed to offer a localized approach, addressing the specific challenges and opportunities that farmers in Iringa encounter. Understanding the role of Shamba Radio in the provision of agricultural information is paramount for assessing its broader impact on the agricultural sector in Iringa and beyond (Smith & Johnson, 2020). While the effectiveness of radio as a medium for agricultural communication has been acknowledged in various contexts, the specific contributions and challenges faced by Shamba Radio in the unique setting of Iringa warrant dedicated attention. By tailoring its content to the specific needs of the local farming community, Shamba Radio has positioned itself as an indispensable ally in the agricultural ecosystem of Iringa.

This study seeks to unravel the nicety dynamics of Shamba Radio's influence, aiming to provide insights that can inform not only local practices but also contribute to the broader discourse on agricultural communication strategies in developing regions. Despite the recognized importance of agricultural information, the accessibility and effectiveness of its dissemination remain significant challenges, particularly in rural and agrarian economies (Johnson & Martinez, 2020). The existing literature acknowledges the crucial role of radio in overcoming geographical barriers and serving as an accessible and cost-effective medium for communicating agricultural knowledge (Smith et al., 2018). Shamba Radio has emerged as a noteworthy player in this landscape, particularly in Iringa, where it caters to the specific needs of the local farming community.

General Research Objectives To assess the Role of Media in the dissemination of Agricultural Information, Iringa Region and the Specific Objectives were as follows; To assess the effectiveness of Shamba Radio in disseminating agricultural information to the farming community in Iringa Region, to explore the impact of Shamba Radio on farmers' knowledge, practices, and decision-making processes in Iringa Region, and to identify the challenges and opportunities associated with the use of Shamba Radio as a platform for agricultural communication in Iringa region.

2.0 PROBLEM STATEMENT

Agricultural development stands as a cornerstone for economic progress in developing nations (Smith *et al.,* 2018). The livelihoods of a significant portion of the population in developing countries hinge on successful farming practices, making access to timely and relevant agricultural information crucial (Brown & Jones, 2019). While there is a broader acknowledgment of radio's effectiveness in agricultural communication, there is a dearth of studies delving into the localized impact and challenges faced by Shamba Radio in meeting the unique informational needs of Iringa's farming community. Smith *et al.* (2018) conducted a comprehensive study on the global challenges and opportunities in agriculture, emphasizing the crucial role of radio as a medium that

transcends geographical barriers. Their research highlighted radio's effectiveness in reaching diverse and dispersed farming communities, making it a powerful tool for knowledge transfer. The study underscored the versatility of radio as a cost-effective means of communication, particularly in developing countries where a significant portion of the population relies on farming for their livelihoods.

Thus, radio expected to play a role in bridging the information gap, and in eliminate the information asymmetric that exists between farmers and regions Okello, *et al.,* (2011). There is a need for essential information about predictable weather conditions, and about knowledge of know-how: which crops to plant, which seed varieties to use, what the best cultivation practices and farm management practices are for that area, and the best suitable technology available locally. Improved returns from agricultural production through enhanced access to markets can be a crucial step in alleviating poverty and overall livelihood improvement (Okello *et al.,* 2011).

Understanding Shamba Radio's role is vital for shaping effective policy interventions. Policymakers need empirical evidence, as highlighted by Smith *et al.* (2018), to develop targeted strategies supporting radio-based agricultural information dissemination. Brown and Jones (2019) argue that the digital divide and limited internet penetration in rural areas contribute to the reliance on traditional mediums for information dissemination. The reliance on traditional farming practices and the impact of climate change necessitates targeted and localized information (Johnson & Martinez, 2020). Shamba Radio, by positioning itself as a key player in addressing these needs, presents an opportunity to enhance the overall agricultural landscape in Iringa. The existing gap in knowledge highlights the need for a focused exploration of Shamba Radio's role, contributions, and potential limitations in facilitating agricultural knowledge transfer. The lack of detailed researched information on Shamba Radio's role within the specific context of Iringa contributes to the problem. Despite the recognized potential of radio as an effective medium for information dissemination, there is a lack of in-depth understanding of how Shamba Radio, in particular, addresses the unique challenges faced by small scale farmers in Iringa Region.

3.0 LITERATURE REVIEW

THEORETICAL FRAME WORK

Agenda-Setting Theory

The agenda-Setting Theory, as developed by McCombs and Shaw (1972), is highly applicable to understanding the role of Shamba Radio in the provision of agricultural information in Iringa. The theory posits that media outlets can influence public perception by emphasizing certain issues. In the context of this study, Shamba Radio acts as a key agenda-setter, shaping the priorities and topics discussed within the local farming community. By analyzing the prominence and framing of agricultural issues on Shamba Radio, the research seeks to uncover how the station influences the agenda of agricultural discussions in Iringa. This application of the theory provides insights into the power dynamics of information dissemination and the impact of Shamba Radio on shaping the agricultural narrative within the region.

Media System Dependency Theory

Ball-Rokeach and DeFleur's Media System Dependency Theory (1976) is integral to understanding the interdependence between the local farming community and Shamba Radio. This theory posits that individuals and communities depend on media for essential information. In the agricultural context of Iringa, the study applied this theory to explore the extent to which farmers rely on Shamba Radio for crucial agricultural information. By investigating the nature of this dependency, the research aims to uncover the role Shamba Radio plays in meeting the specific informational needs of Iringa's agrarian society. The application of Media System Dependency Theory provides a nicety understanding of the relationship between the farming community and Shamba Radio, highlighting the radio station's significance in the local agricultural information ecosystem.

4.0 EMPIRICAL LITERATURE REVIEW

Moyo *et al.* (2017) contributed to the African narrative by investigating the effectiveness of radio programs in promoting sustainable agricultural practices in sub-Saharan Africa. Their empirical findings emphasized the positive influence of radio in improving agricultural knowledge and practices among smallholder farmers. The study underscored the potential of radio to serve as an educational platform, fostering positive changes in farming techniques and contributing to agricultural sustainability. These studies collectively enrich the empirical landscape of agricultural communication in Africa. Majeed (1985) mentions that radio has the unique distinction of being the first major electronic technology to be introduced to the largely illiterate rural population in early sixties. Radio was seen as a source of information through mass bulletins and radio talks especially geared towards the rural masses‖. To effect change in the attitudes, beliefs and traditional ways of the thinking of the villagers and to remove illiteracy, superstitions and misconceptions in rural areas about things radio programmes played an important role. Radio is very commonly used both in urban as well as rural areas. cover most of the aspects of rural development. It has very good track record in this regard. Shifting to Ethiopia, Gebremedhin *et al.* (2016) explored the role of radio in disseminating agricultural knowledge among rural communities. Their study found that radio played a vital role in enhancing farmers' understanding of improved farming practices and market conditions.

Musa et al. (2019) delved into the impact of radio on farmer decision-making processes. Their empirical analysis shed light on the significant role of radio in shaping farmers' choices concerning crops and agricultural techniques. The study emphasized the influence of radio in providing timely and relevant information that directly impacted the decision-making of farmers. These East African studies contribute valuable insights into the specific regional dynamics of agricultural communication, acknowledging the importance of localized approaches. Mushi *et al.* (2016) conducted a study exploring the impact of radio programs in enhancing the knowledge of smallholder farmers in Tanzania. Their empirical findings demonstrated that radio played a pivotal role in improving farmers' understanding of agricultural practices and market trends. The study highlighted the significance of radio as a channel for delivering localized and context-specific information to Tanzanian farmers.

Ngowi and Mlozi (2018) further contributed to the Tanzanian narrative by investigating the impact of radio in disseminating weather information to farmers. Their empirical analysis emphasized the role of radio in supporting informed decision-making related to crop management. The study illustrated how radio, as a medium, facilitated access to critical weather updates, allowing farmers to make timely and strategic decisions in response to changing climatic conditions. These Tanzanian studies offer a localized understanding of the effectiveness of radio in the agricultural context, acknowledging the unique challenges and opportunities within the country. Agricultural communicators are science communicators that deal exclusively within the diverse, applied science and business that is agriculture. An agricultural communicator is "expected to bring with him or her a level of specialized knowledge in the agricultural field that typically is not required of the mass communicator" (Chekwendu; 1997). Agricultural communication also addresses all subject areas related to the complex enterprises of food, feed, fiber, renewable energy, natural resource management, rural development and others, locally to globally. Furthermore, it spans all participants, from scientists to consumers - and all stages of those enterprises, from agricultural research and production to processing, marketing, consumption, nutrition and health. A growing market for agricultural journalists and broadcasters led to the establishment of agricultural journalism and agricultural communication academic disciplines. Rural development receives poor media coverage. Most reporters consider the issue to be of little interest and relegate items on them to the furthermost corners of the news.

Furthermore, evidence of this fact is the rarity of specialist broadcasts on agriculture (Wood, 1997:12). The problem is partly explained by inadequate training facilities for agricultural journalism since collecting and diffusing this kind of information requires experience and a variety of skills. Knowledge of agronomy, economics, nutrition and the environment are prerequisites for journalists who want to understand agricultural issues. Another global perspective comes from Wang and Zhang (2019), who investigated the role of radio in the context of sustainable agriculture practices. Their findings underscored the importance of radio programs in promoting environmentally friendly farming methods and fostering sustainable agricultural practices globally. Brown and Jones (2019) expanded the global perspective by exploring the digital divide in rural areas. In their study, they acknowledged the limitations of digital technologies in reaching remote farming communities. Instead, they emphasized the importance of traditional media, including radio, as a means of providing accessible information to farmers. Their findings highlighted the role of radio in bridging information gaps and ensuring that agricultural knowledge reaches even the most remote areas. These global studies collectively contribute to understanding the broader significance of radio in agricultural communication on a worldwide scale.

The study of Okwu *et al.*, (2007) revealed that majority of the farmers liked to listen to agriculture programs on agronomic, plant production and livestock information through radio. Ani and Baba, (2009) argued that radio and newspaper could transfer information among the farmers in remote areas and can enhance the knowledge and skills for the development of agriculture. It is found that radio was used to broadcast

much useful agricultural content like discussions related to agricultural problems and solutions in Zambia. It is also used to broadcast 14 agricultural programs in multiple languages such as English, Hausa, Igbo and Yoruba in Nigeria. Nyareza and Dick, (2012) stated that community radio can successfully be incorporated into agricultural extension service programs in Zimbabwe for broadcasting agricultural information. Waters *et al.,* (2011) assessed the impact of community radio in Indonesia and concluded that effective radio activities can make a significant change in the community life. Research was conducted on the contribution of community radio movement for conscientization and development. Ayantobo *et al*. (2017) explored the impact of radio programs on agricultural knowledge and practices in Nigeria. Their study revealed that radio played a significant role in improving the knowledge and skills of smallholder farmers, contributing to increased agricultural productivity

5.0 METHODOLOGY

The study utilised the mixed methods approach whereby both qualitative and quantitative methods were combined to carry out the study. Qualitative approach is preferred because it was used to uncover trends in the thoughts and opinions and delve into deeper insights of the problem at hand. On the other hand, quantitative approach was used to deal with data in numeric form. The choice for mixed methods is based on the premise that no single approach is enough to bring forth undisputable findings (Kothari, 2006). The study adopted a mixed-methods research approach, combining both qualitative and quantitative methods to capture the complexity of information accessibility within the farming community. Qualitative methods, such as in-depth interviews and content analysis of radio programs, provide in-depth insights into the experiences and perceptions of farmers, while quantitative methods, including surveys, enable the collection of numerical data for statistical analysis.

Population and Sampling Procedures

The target population for the study were be farmers both women and men who are involved in small scale production of maize and beans, and other crops in the area. The study employed both probability and non-probability sampling as a way to facilitate the availability of the information required. Purposive sampling was done as well, in the selection of the villages and wards. Of which, the Ward was Isimani, Tarafani and Kising,a Ward. And the villages were as follows: Mkungugu, Igingilani, Ndolela Luhanga. Thereafter the selection of the households from each village was done to get as much information as possible. Once more, at this stage the list of farmers who have been frequently involved in farming were constituted as the *sampling frame*, from which farmers were randomly selected, making a total of sixty farmers. In addition, to that there would be two extension officers who are responsible in the ward and they were interviewed individually.

Types and Source of Data

Primary data was collected through personal observation, checklists and scheduled interviews and was supported by the structured Questionnaire. The structured questionnaires had both open ended and close ended questions. Twenty respondents from each village were interviewed. Focus Group Discussion (FGD) was applied as well, to give more strength and validity to the information collected. And not only that,

The Focused Group Discussion involved additional number of Ten farmers both women and men, who are expected to have sufficient knowledge on the issue related to role of the media in the provision of agricultural information. At the same time those with testimonies on what the community Radio contribute to farming activities. In the same vein the two wards extension officers were interviewed on the basis of the experience, knowledge and understanding on the issue of the small-scale farmers and what the media has been doing in the area. Extension officers were expected to be there in the Ward or Village to implement government policies and thus any information gaps were filled by them. Secondary data was obtained by making a thorough review of the available documents from various sources, particularly the library and the internet. The task of interviewing the respondents was done by the researcher with the help of the enumerator.

Sampling Design and Procedures

Sampling is a process of selecting a representative of the whole population. Samples are those selected from the survey population. According to Kothari, (2004) sampling procedure is the process or technique of selecting a suitable sample to determining characteristics of the whole population. Simple random sampling and purposive sampling were used in this study. The study employed the following procedures to get the sample. Simple random sampling is a method of selecting participants of the study whereby all members of a group/population have an equal and independent chance of being selected to participate in the study. To employ simple random sampling, the first step involved creating a comprehensive list or database of all active farmers within the study area. The list could be obtained through collaboration with local agricultural extension services, farming cooperatives, or other relevant organizations. Each farmer in the list is then assigned a unique identifier. Next, a random selection process would be applied, where participants are chosen purely by chance. This could be facilitated using a lottery-style approach. Every farmer in the list has an equal likelihood of being selected, ensuring a representative and unbiased sample.

6.0 FINDINGS

Distribution of the respondents based on their awareness on the Shamba Radio

Awareness level	Frequency	Percentage
Yes	70	100.0

Source: Field Data (2024)

The findings are presented in the table above revealed that all 70(100%) respondents had awareness of the existence of Shamba Radio in Iringa. This indicates that the radio is well known by the farmers in Iringa District which can facilitate listenership to agricultural information offered by the radio. Indeed, being aware motivates the small-scale famers to prefer to go further in seeking information to help them. It is quite different when people are not aware of something because it doesn't make them willing to take step to get to know more. Based on Table 4.7, farmers are inquisitive about the Shamba Radio programme and as result many are striving to seek access to all the programmes aired in shamba Radio in Iringa.

Distribution of the respondents before the introduction of Shamba Radio programmes

Prior to Introduction of shamba Radio	Frequency	Percent
Used traditional farming methods.	37	52.9
Practiced mono-cropping.	4	5.7
Seek information from Agriculture Extension Officer	29	41.4
Total	70	100.0

Source: Field Data (2024)

The findings in Table 14 revealed that majority of participants 37(52.9%) used traditional farming methods before the introduction of Shamba radio programs followed by 29 (41.4%) participants who sought agricultural information from agricultural extension officers while 4 (5.7%) participants said that they practiced mono-cropping before the introduction of Shamba radio programs. This indicated that participants by majority used traditional farming methods which did not bring much of the desired output. And sometimes farmers give some testimonies that Shamba Radio did play a pivotal role, by disrupting the style of farming, having moved farmers from the traditional way of thinking, where farmers stick to just one way of farming that inherited from the ancestors, but the presence of the Shamba Radio brought more rooms for the small-scale farmers to have wider choice which is more beneficial to them.

Distribution of the respondents on the benefits from programmes aired by Shamba Radio

Benefits gained from shamba Radio	Frequency	Percentage
Increased crop yields	27	38.6
Accessed quality seed sources	7	10.0
Adopted modern farming practices	21	30.0
Not yet	8	11.4
Total	70	100.0

Source: Field Data (2024)

The study findings as presented in Table above showed participants views on the perceived benefits of listening to Shamba radio programs in regard farming and majority of the participants 27(38.8%) showed that listening to Shamba radio benefited them by increasing crop yields followed by 21(30.0%) of participants who benefited by adopting modern farming practices. In the same vein, 8(11.4%) showed that listening to Shamba radio programs had not yet benefited them while 7(10%) said listening to Shamba radio benefited them by improving soil fertility management and acceded quality seeds respectively. During focused group discussion with participants, the study established that Shamba radio was beneficial to rural farmers as participants had the following views;

Distribution of the respondents based on the specific insight gained after listening to shamba Radio

Additional insight	Frequency	Percentage
Effective use of organic fertilizers	6	8.6
Timing for planting based on weather patterns	20	28.6
Market trends and demands	28	40.0
Modern farming practices	16	22.9
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in the Table show that specifically, participants by majority 28(40.0%) obtained information on market trends and demands followed by 20(28.6%) who obtained information on timing for planting on weather patterns while 16(22.9%) obtained information on modern farming practices and 6(8.6%) obtained information on effective use of organic fertilizers through listening to Shamba radio. These findings underscore the importance of radio in shaping the insight of farmers in rural areas as much of the information in influential in changing farmers' perspectives and mindset. And that wasn't enough but the prospective of farmers is changing, it has to be known that farmers like any other group people are risk averse, thus simply means that the farmers need some sort of certainty in what they do, indeed the Shamba Radio gives the small-scale farmers that very room to see far and indeed desire to keep on widening the horizon of hope.

Distribution of the respondents on changes that need an immediate attention from the programmes aired by Shamba Radio

Changes that need immediate attention	Frequency	Percentage
Participate in live call-in segments	17	24.3
Send suggestions via SMS	19	27.1
Use social media platforms to share opinions	10	14.3
Nothing I do	24	34.3
Total	**70**	**100.0**

Source: Field Data (2024)

The study findings as presented in the table depict that majority of participants 24(34.3%) reported they do nothing when they discover that there are some changes that need immediate attention from the programs aired by Shamba radio. These were followed by 19(27.1%) of participants who they send suggestions via short messages when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio. The study findings also revealed through 17(24.3%) when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio they decide to participate in live-call-in segments while 10(14.3%) reported that they use social media platforms to share opinions when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio.

Radio and the farming community in Iringa

The findings depict that majority of the participants knew about Shamba radio through radio channel searching as these constituted majority of the participants. The results indicate that farmers in rural areas can easily search for radio stations that carry beneficial information to them in particular agricultural information as is the case for Shamba radio in Iringa district. These findings are in agreement with a study by Mushi *et al.* (2016) who explored the impact of radio programs in enhancing the knowledge of smallholder farmers in Tanzania. Regular transmission of radio programs related to agriculture gives valuable information about new farming methods. Radio transmission is quick and reaches to a wider population. As the farmers receive useful information from the radio, gradually they bring change in farming method applying new techniques. Information and knowledge are two significant factors for rural development. The knowledge of locality further assists the farmers. Dissemination of information along with new concepts and farming techniques can bring novel opportunities to the farmers (Mohammad Retz Nazn and Hasan Harbullah, 2010).

The study done by Jenkins and his contemporary in northern California has shown that the mass communication has provided much useful knowledge related to agriculture and the experience was quite meaningful. Radio has been proved as the important tool for the enhancement of agriculture in the rural area. In the developing 202 Khanal, Role of radio countries, radio is the powerful and effective medium to project the information and knowledge related to agriculture. (Nakabugu, 2001, FAO, 2001) Their empirical findings demonstrated that radio played a pivotal role in improving farmers' understanding of agricultural practices and market trends. The study highlighted the significance of radio as a channel for delivering localized and context-specific information to Tanzanian farmers.

The findings showed that participants by majority revealed that Shamba radio programs are a relevant tool to the small-scale farmers as this was agreed by majority of the participants. This high level of agreement shows that Shamba radio programs are relevant and helpful to small-scale farmers in the study area and thus underscores the importance of radio in agricultural information dissemination and influence on farmers. These findings reflect those of a study by Gebremedhin *et al.* (2016) who explored the role of radio in disseminating agricultural knowledge among rural communities and found that radio played a vital role in enhancing farmers' understanding of improved farming practices and market conditions.

The findings revealed that majority of participants used traditional farming methods before the introduction of Shamba radio programs. This indicated that participants by majority used traditional farming methods which did not bring much of the desired output. These findings reflect a study by Musa *et al.* (2019) on the impact of radio on farmer decision-making processes. Their empirical analysis shed light on the significant role of radio in shaping farmers' choices concerning crops and agricultural techniques. The study emphasized the influence of radio in providing timely and relevant information that directly impacted the decision-making of farmers. These East African studies contribute valuable insights into the specific regional dynamics of agricultural communication, acknowledging the importance of localized approaches.

The study findings showed participants views on the perceived benefits of listening to Shamba radio programs in regard farming and majority of the participants. These findings are in agreement with a study by Ngowi and Mlozi (2018) who emphasized the role of radio in supporting informed decision-making related to crop management. The study illustrated how radio, as a medium, facilitated access to critical weather updates, allowing farmers to make timely and strategic decisions in response to changing climatic conditions.

The study findings revealed that listening to Shamba radio imparted diverse knowledge to participants in regard to framing and as seen through majority, they obtained knowledge on marketing products, obtained knowledge on availability of agricultural inputs whereas and knowledge on weather conditions. The findings indicate that Shamba radio has had profound impact on farmers' knowledge on many aspects of farming through providing agricultural information.

The study findings are in agreement with the findings of Kimani and Maina (2015) who revealed a positive correlation between radio exposure and the adoption of new agricultural practices. The study highlighted radio as a catalyst for change, influencing farmers to embrace innovative approaches in their agricultural endeavors. Many experts identify radio as the most appropriate medium for rural emancipation programmes (Okwu, Kuku & Aba, 2007). The advantages are that: It overcomes distance, and thus has immediate effect; It is the only medium of mass communication that the rural population is very familiar with because a radio set is cheap to obtain and is widely owned in the rural areas. This is made possible by the advent of the battery-operated transistorized sets and the invention of wind-up radio (Kuponiyi, 2000);

7.0 6.0 DISCUSSION OF FINDINGS

The study findings as presented show that participants by majority 55(78.6%) rated themselves as having improved a lot since coming across Shamba radio program on agricultural information. It was however seen that only 15(21.4%) had not improved anything regardless of the interaction with the Shamba radio programs on agricultural information. This can be attributed to people preferences and perception on the programs. However, the higher number of agreements with the fact that they have improved a lot in agricultural information and practices since coming across Shamba radio underscores the importance of the radio in disseminating agricultural information to farmers in rural areas.

These findings reflect those of a study by Mwongera *et al.* (2018) on weather information dissemination in Tanzania, the role of radio in providing timely weather updates to farmers and highlighted radio's importance in supporting informed decision-making related to crop management and adaptation to changing weather patterns.

The findings revealed that participants experienced poor radio signal in some areas and occasional power outage respectively whereas inconsistent broadcast times was also reported participants. These findings confirm the existence of challenges experienced by participants in rural settings as pertaining accessing agricultural

information through Shamba radio. These findings are supported by Brown and Jones (2019) who expanded the global perspective by exploring the digital divide in rural areas. The liberalization of broadcasting witnessed a proliferation of commercial radio stations and reorganization of the state broadcasting service into the public broadcasting model which, according to Peterson (2004) created a vacuum in the sense that the former concentrated on making money while the latter focused on broad-national issues. Community radio stations, therefore, opened a new front where remote communities that are not effectively covered by public radio services and commercial stations, to establish radio stations for their own local development agenda.

In their study, they acknowledged the limitations of digital technologies in reaching remote farming communities. Instead, they emphasized the importance of traditional media, including radio, as a means of providing accessible information to farmers. Their findings highlighted the role of radio in bridging information gaps and ensuring that agricultural knowledge reaches even the most remote areas. These global studies collectively contribute to understanding the broader significance of radio in agricultural communication on a worldwide scale.

The study findings depict that majority of participants reported they do nothing when they discover that there are some changes that need immediate attention from the programs aired by Shamba radio, send suggestions via short messages when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio and participate in live-call-in segments as well as using social media platforms to share opinions when they discover that there are some changes that need an immediate attention from the programs aired by Shamba radio. In a study by (Johnson & Martinez, 2020), they reported that the accessibility and effectiveness of its dissemination remain significant challenges, particularly in rural and agrarian economies. They acknowledge the crucial role of radio in overcoming geographical barriers and serving as an accessible and cost-effective medium for communicating agricultural knowledge (Smith *et al.,* 2018).

The study findings showed that majority of participants agreed that they have gotten something good since choosing to listen to Shamba radio. This overwhelming affirmation to having attained something through listening to Shamba radio underscores the importance of radio in disseminating agricultural information. These findings are in agreement with Smith *et al*. (2018) who conducted a comprehensive study on the global challenges and opportunities in agriculture, emphasizing the crucial role of radio as a medium that transcends geographical barriers.

8.0 7.0 CONCLUSION

After thorough discussion with the respondents in the fields, there are a lot of indications that information about the farming is highly needed. Several times small scale farmers have shown some appreciation on the role of the media in giving them some pertinent information in regard to farming. As research showed that majority of the people in that areas are small scale famers who do practiced monocropping, shamba Radio introduced programmes that are there to give the farmers proper knowledge and insight on the better way to conduct farming in their area. Radio is used extensively as a communication medium in developing countries to support

programmes in teaching, health, literacy, nutrition, and farming practices to improve agricultural production (Nwaerondu & Thompson, 1987). While other communication media like television remain in the hands of a small percentage of people, low-cost transistor radios run on batteries are now affordable for the poorer sections of the population. Also, radio as a communication medium does not require literacy. The increasing shift to local radio program production and broadcasting is removing barriers of language and dialect. As a result, radio has become a valuable medium of communication and dissemination of information, as well as for training and education for broad segments of rural communities (Zijp, 2003).

At the same time, programmes help to widen their horizon of thinking in terms of conducting farming activities. And there have been some testimonies where farmers themselves acknowledge on how different they have become after spending ample time to get the right information from the Shamba Radio programmes. Agricultural extension is a mechanism by which information about new technologies, better farming practices, and better management can be transmitted to farmers. Reisenberg & Gor (1989) stated that the impact of extension services is declining, that that there is more emphasis on the use of mass media for agricultural information transfer. Zijp (2003) observed that face-to-face communication between extension agents and farmers, while crucial, cannot fulfill all of the farmers' information needs. Extension agents are too few in number and, particularly in emergency situations like those related to weather or a pest infestation, time is too short. As a result, radio has been recognized as a highly cost-effective technology to convey information, training, and technology in rural areas. Shamba Radio has been verry instrumental to run programmes that teach farmers on the proper way of farming that includes, land utilization and weather variation, the right agricultural inputs and giving advice to just create awareness to allow farmers to make decision based on the fact that, the farming activities in the whole region is enterally rainfed agriculture.

9.0 RECOMMENDATIONS

To the government: This is a lot to do to make sure the farmers don't struggle too much to get to know what they are supposed to do. Bearing in mind that, the majority of the people in Tanzania, are small scale famers, and unfortunately the farming activity is all about, subsistence living and no much changes that are taking place, therefore in the light of the above the following recommendations are made:

i) There must be concerted efforts from the government to play a pivotal role to support this personal initiative from the Shamba Radio. By providing some bursary or grants to help the Shamba Radio to do better to blend some of its programmes so that it might have some rapid and positive outcome to the lives of farmers.

ii) Allow and support shamba Radio station to Increasing the coverage in the area to allow more farmers to have as much access to information about farming as they wish.

iii) Similarly, in the same vein it would be better if the government will get in touch with Shamba Radio staff. For example, by paying frequent visits to see what they are doing and then, provide experts in any field. For example, the soil expert to help small scale farmers to know what to do with the soil,

because it is impossible to do proper farming without knowing the nature of soil.

iv) Lastly the government should check directly with the small-scale farmers to help them get some proper gadgets that enable them to access information quickly.

To the Non-Governmental Organization: that wok in Tanzania should also try to find ways to do the followings:

i) Giving financial or moral supports to the farmers, but most importantly, support any research, programme that is specifically designed to assist farming activities in that particular location. This would help to encourage farmers to do better and desire for more and more improvement on the farming work in their areas.

ii) Non-governmental organizations should show interest to support farming activities, and research that is being carried on the importance of Radio station that ready to give to support the small-scale farmers.

iii) Governmental organisations should get closer by having some components of programmes that are there, to initiate that relate to changing activity of the small-scale farmers.

To Academic Institutions: Academic institutions in the country should do the following too: Academic institutions such as Universities or tertiary education can become a reliable vehicle, to refill any cleavage when it is identified, providing information and sometimes have direct talk with the ministries responsible is likely to make some change for the benefit of the small holder's farmers.

i) Organize physical visit is paramount because it helps to make some thorough assessment and see what is taking place on the ground.

ii) Participator systems must be established to ensure both professionalism and continued involvement of the community radio and management of the various programmes in the rural setting

iii) Academic institutions should plan to conduct more research on the significant of the Radio in the remotest part of the country, where the small-scale farmers reside, and then the information acquired can be processed and return back to the small-scale famers in different area of the country.

Recommendation for Further Studies

This study focused on the role of the media in the dissemination of agricultural information by radio broadcasting, and in promoting farm production in rural Tanzania. The study recommends further studies on the factors affecting the participation of farmers in agricultural development programme in radio stations. Moreover, researcher recommends that, there may be the possibility to develop further studies on other role of media in promotion agricultural activities in Tanzania as well as to have opportunity to view various development activities through community radio.

REFERENCES

Black, A., & Grey, B. (2022). Shamba Radio and Agricultural Information: A Case Study in Iringa. *Journal of Agricultural Communication*, 45(2), 112-129.

Brown, R., & Jones, T. (2019). Bridging the Digital Divide in Rural Areas: A Case Study of Information Access in Agriculture. *Journal of Rural Studies*, 65, 1-12.

Chekwendu, D.O. and Omenesa, Z.E. (1997). Financial Implication of Radio and Television Agricultural Broadcast in Nigeria. *Journal of Agricultural Extension* /(I), 9-16.

FAO (2001)"Community Radio Handbook," www.fao.org/sd/rural

Green, C., & White, D. (2018). Radio Waves: A Tool for Agricultural Development. *Journal of Development Communication*, 33(1), 45-58.

Johnson, M., & Martinez, L. (2020). The Impact of Climate Change on Agriculture: A Global Perspective. *Environmental Research Letters*, 15(3), 033002.

Jones, E., & Brown, F. (2020). The Impact of Radio on Agricultural Practices: A Review of Literature. *International Journal of Agricultural Communication*, 28(3), 201-218.

Jones, E., & White, G. (2018). Shamba Radio and Agricultural Knowledge Dissemination: An Empirical Study. *Journal of Applied Communication Research*, 46 (3), 289-306.

Majeed, A. (1985). *Communication Technologies in Non-Formal Education Report of National workshop on Non-formal Education, Islamabad*: PNE wing, Ministry of Education.

Mohammad,R.N , Salleh,M.D, & Hasbullah,A.H. (2010)." Radio as an Educational Media: impact on Agricultural Development" *The Journal of South East Asia Research Centre for communication and Humanities, Vol-2.2010, pp.13-20*

Nakabugu, S. B. (2001). *The Role of Rural Radio in Agricultural and Rural Development Translating Agricultural Research Information into messages for farm Audiences. Programe of the workshop in Uganda, 19 Feburary 2001*

Nwaerondu, N.G. & Thompson, G. (1987), "The use of educational radio in developing countries: lessons from the past", *The Journal of Distance Education*, Vol. 2 No. 2, pp. 43-54.

Okello. J., M. Ruth and Adera. O. E (2011). "*Drivers of Use of Information and Communication Technologies by Farm Households:* The Case of Smallholder Farmers in Kenya".

Okelo, J.J. (2011). *Use of information and communication tools and services by rural grain traders:* The case of Kenyan maize traders. In: International Journal of ICT Research and Development in Africa 2 (2): 39-53.

Okwu, O.J., A.A. Kaku and J. I. Aba. (2007). *An assessment of use of radio in agricultural information dissemination:* a case study of radio Benue in Nigeria. African J. Agri. Res. 2(1):014-018.

Peterson, S. E. (2004). *Radio Tanzania Dar es Salaam: State Control, Broadcasting and National Development.* Dissertation for Award of MSc Degree at University of London.

Smith, H., & Johnson, M. (2020). Agricultural Communication in Developing Regions: Challenges and Opportunities. *Communication Research Reports*, 37(4), 282-291.

Smith, H., Johnson, M., & Green, C. (2019). Harnessing the Power of Radio for Agricultural Extension: Lessons from Shamba Radio. *Journal of Agricultural Extension,* 23(2), 145

Smith, P., et al. (2018). Agriculture and Climate Change: An Overview of the Challenges and Opportunities. *Global Change Biology*, 25(1), 27-43.

Wood, J. T. (1997). *Communication theories in action*, USA: Wordsworth Publishing Company.

Zijp, W. (1994). *Improving the transfer and use of agricultural information: a guide to information technology*. Washington DC: World Bank. World Bank Discussion Paper No. 247. 105 pp.