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ASSESSING THE EFFECTIVENESS OF REGIONAL MARKETING GROUP (RMG) GHANA LIMITED INPUTS DISTRIBUTION AMONG FARMERS IN GHANA

BY

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DECLARATION

I hereby declare that, except for references to other people's work, which have been duly cited and acknowledged, this thesis is the result of my own original research and has not been presented elsewhere either in part or in whole for another degree.

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DEDICATION

I dedicate this work to my wife Lucy Twewaa Takyi and son Elya Odartey Lamptey for

the support and love they have given me throughout my studies. God richly bless them.

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Foremost, I would like to express my sincere gratitude to the Almighty God for making my dream come true, secondly my supervisor Dr. Mrs. Theresa Baah-Ennumh for her continuous support of my research work, for her patience and motivation. Her guidance helped me in all the time of research and writing of this thesis. I also express my profound gratitude to all my course mates for their support.

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LIST OF ABBREVIATIONS

CBAs   Community Based Extension Agents

EWV   Extension Women Volunteers

FAO   Food and Agriculture Organization

MDAs   Ministries, Departments and Agencies

MFIs   Micro-Financial Institutions

NARS   National Agriculture Research Systems

NGO   Non-Governmental Organizations

RCC   Regional Coordinating Council

RMG   Regional Marketing Group

TVT   Trans-Volta-Togo land

VGA   Village Group Animators

ABSTRACT

This study sought to assess the effectiveness of Regional Marketing Group (RMG) input distribution among farmers in Ghana. A sample size of one hundred and fifty (150) farmers was used for the study. The study employed the integrated approach also referred to as the mixed methods where both quantitative and qualitative research methods were used. The research instrument used for data gathering was both questionnaire and interview guide. The data obtained after administering the questionnaire were analyzed with the Statistical Package for Social Sciences and thematic analysis was used for the responses from the interview guide. The findings from the study have shown that farmers receive a lot of benefits from RMG input distribution programmes. Among them were seeds, fertilizers and agro chemicals. Furthermore, the input distribution strategy used by RMG communications was rated by the farmers to be excellent, very good and good. The RMG officials also indicated that they face some challenges with the input distribution strategies they use. These challenges are poor road and inaccessible roads that leads to late delivery of inputs and also affects field visits and demonstrations. Based on the findings of the study, the following recommendations are made; Since the farmers perceived RMG input distribution to be excellent, very good and good, it is recommended that RMG should continue with their input distribution as it is benefiting all the farmers. It is also recommended that the poor roads must be fixed and also inaccessible roads must be made accessible so that inputs can be delivered on time to the farmers. This will also ensure that farm visits and farm demonstrations are made on farms. This will help to increase farmers' yields.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The demand for food is anticipated to move by 60 percent globally in the near future and this is likely to occur in the next 37 years. It is expected that global human population will stand at 9.2 billion by the year 2050 (Food and Agriculture Organization, 2013). These projections are made in the light of current and expected challenges such as the scarce water resources and the negative impact of climate change. This suggests that if production targets of food stuff were not met, there would be inadequate food supply which could affect the global economy adversely and further lead to social and political instabilities around the world.

These economic reverse and social instabilities are already evident. In 2008, there were riots in Burkina Faso, Cameroun, and Senegal, where people protested against the price of food due to inadequate supply of food. Inadequate supply of food also led to riots in Yemen and Egypt in 2012. In Yemen, the riots claimed dozens of lives whilst in Egypt the military had to control thousands of people during riots in Cairo due to the shortage of bread. In Guinea and Ghana the price of imported rice also increased by 35 percent between 2011 and 2012 (Sasson, 2012). According to the Ghana Statistical Service (2014), food inflation averaged 7.6 percent from 2013 to 2014. This situation indicates that food prices continue to rise in Ghana and this suggests that some Ghanaians may not have adequate food to eat to stay healthy as the prices of food stuffs continue to increase.

Mostly, African countries receive agricultural input as interventions in the form of seeds and agricultural inputs that are distributed directly to farmers (Kachule & Chilongo, 2007). Use of improved technologies such as seed, pesticides, insecticides and fertilizers can bring about increases in agricultural production.

1.2 Problem Statement

According to Davis (2013), many African countries have realized that extension services play a crucial role in helping to provide sufficient food. However, the challenges for extension services in Africa include inadequacies in financing, capacity and monitoring and evaluation. These factors have weakened the extension services effectiveness to relay the necessary technologies and information to the farmers. The ineffectiveness of extension services suggests that farmers are not going to benefit fully from new solutions that are designed to help them thrive under increasing agricultural challenges. Ngomane (2003) reviewed the developmental work of some non-governmental organizations in Africa and revealed research extension-linkages as a limitation to obtaining the reward of research. Ten years later, Asiedu-Darko (2013) identified technology dissemination as the weakest link in most National Agriculture Research Systems (NARS). Asiedu-Darko (2013) found four key challenges scientists, technical officers and extension agents experience in the dissemination of farming technologies and delivery of extension services. These challenges are similar to the challenges revealed by Davis (2013).

 For every extension distributionstrategy to achieve the desired and needed results it must be effective and this is where this study becomes necessary. Moreover, in spite of the many interventions aimed at addressing the low food production problem, there is inadequate

empirical evidence that these extension distributionstrategies are achieving their expected output.

This study is therefore intended to provide empirical data about the input distribution strategies used by RMG Ghana Limited and to assess the effectiveness of these strategies among farmers in Ghana.

1.3 Objectives of the Study

The main objective of the study is to assess the effectiveness of input distribution by RMG Ghana Limited among farmers in the Volta Region of Ghana. However, the specific objectives are as follows;

1. To assess the input distribution strategies being used by RMG to the farmers.

2. To examine the perception of the farmers on the input distribution strategies adopted by RMG Ghana Limited

3. To determine if there exists any challenges in the strategies adopted by RMG Ghana Limited for input distribution

4. To assess the effectiveness of the input distribution strategies being used by RMG to the farmers.

1.4 Research Questions

The research questions are;

1. What are the strategies used by RMG for input distribution to the farmers?.

2. What is the perception of the farmers on the input distribution strategies adopted by RMG Ghana Limited?

3. What are the challenges in the strategies adopted by RMG Ghana Limited?

4. What is the effectiveness of the input distribution strategies being used by RMG to the farmers?

1.5 Significance of the Study

The findings of the study can be of use by RMG Ghana Limited to illuminate and inform implementation and management decisions of their distribution strategies among farmers and this may help improve the effectiveness of the input distribution of subsequent interventions. There has been a lot of money and human capital invested into extension activities and these efforts have choked some successes however, extension systems are confronted with a myriad of challenges and constraints. Extension services to farmers located in remote areas and locations results in high cost. Moreover a poor and inaccessible road in some areas makes accessibility a big problem. The study will highlight the challenges in their input distribution as well as how farmers perceived, responded and adapted to input distribution by RMG Ghana Limited and will help improve it

1.6 Scope of the Study

This study is focused on assessing the effectiveness of RMG Ghana Limited communication strategy among farmers in Ghana. To obtain quick and reliable results, the study will focus on farmers in Sogakope and Akuse areas in the Volta region of Ghana.

1.7 Limitations of the Study

This study was faced with some limitations. The first limitation is that the scope of the study could have been wider than what was used in this study. More communities could have been used for the study or even the study could have been extended to other regions but focused on the Volta region and also on Sogakope ansd Akuse areas. Also the time used for conducting this study was somehow short and therefore served as a limitation to the study. Also the sample size used for this study which is one hundred and fifty could have been more and therefore was a limitation due to time and finance.

1.7 Organization of the Study

The study will be put into five chapters. Chapter One is on the Introduction of the study and deals with the background to the study, problem to be researched, objectives of the study, research questions, significance of the study, scope and an overview of research methodology. Chapter Two reviews relevant literature on the topic. Chapter Three is focused on the methods used to conduct the research. Chapter Four analyses and discusses the empirical results. Chapter Five looks at the summary, conclusions and recommendation of the analysed data.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviews literature on the communication and communication strategies for input distribution employed among farmers. It also presents a review on researches done in the past on the subject matter which is the empirical literature review.

2.2 Definition of Terms

2.2.1 Communication

This is the transmission of information from the sender to receiver. It is a process by which meaning is exchanged between individuals through a common system of symbols, signs or behaviour. Elkamel (1986) defines communication as the exchange of ideas, information and opinions through speech, writing, pictures and other symbols. Therefore, communication may be said to be a process of sharing messages between the source and the receiver through a certain channel with a view to influencing the receiver's thoughts and actions. It should not be a linear or one-way process, but basically a reciprocate intercourse between the source and the receiver. Barelson (1964) defines communication as the transmission of information, ideas, emotions, and skills by the use of symbols, words, pictures, figures and graphs. From the above definition, it is clear that communication aims at affecting the other person's behaviour once they have received the symbols. In other words, communication can be said to occur when humans manipulate symbols to stimulate meaning in other humans (Infante et al., 1997). Communication serves as a foundation for planning. All the essential information must be communicated to the managers who in-turn must communicate the plans so as to implement them. Organizing also requires effective

communication with others about their job task. Similarly, leaders as managers must communicate effectively with their subordinates so as to achieve the team goals. Controlling is not possible without written and oral communication. The study maintained the same definitions.

2.2.2 Strategy

Mefalopulos (2004) defines strategy as a systematic, well planned series of actions, combining different methods, techniques and tools to achieve an intended change or objective utilizing the available resources within a specific time frame. The strategy is an important document because it commits organisations or individuals to improve on how they communicate and also to adopt a common approach to communication right across the board.

2.2.3 Channels of Communication

These are means by which a message travels both vertically and horizontally from a source to a receiver. They also include the internal and external communication. These channels include media and interpersonal ways of communicating (Rogers, 1973). The study maintained the same definition.

2.2.4 Communication Strategy

Mefalopulos (2004) defines Communication Strategy as a well-planned series of actions aimed at achieving certain objectives through the use of communication methods, techniques and approaches. The communication strategy aims at reflecting the growth of

information and communication technologies; the focus on improving customer service; changes in performance assessment; increasing ethnic diversity among customers or individuals and greater awareness of the need for accessible communication for all people regardless of their status in society or level of education. This study maintained the same definition.

2.3 Theories Underpinning the Study

The theory and practice of development communication pivot from the logic that knowledge and information are essential if people are to successfully respond to opportunities and challenges of their environment and that to be useful such knowledge and information must be effectively communicated. (Tietaah, 2013). Leaning on the argument of Tietaah (2013), effective dissemination of agricultural information is a critical aspect of agriculture development. Sahin (2006) argued that Everett Rogers' diffusion of innovation theory is most appropriate for investigating the dissemination and adoption of a technology, because the theory considers most of the important factors that are involved in the dissemination of an innovation. Through the use of this theory as a guide, the researcher can better appreciate and evaluate how an innovation is disseminated.

The concept of diffusion of innovations normally refers to extending of ideas from one society to another or within the same society (Sahin, 2006). The diffusion of RMG communication strategies to farmers in Sogakope is an example of diffusing ideas from an institution within a society to another part of the society. Diffusion of innovation is very

essential because it is not easy to invent new ideas or solutions to challenges as compared to acquiring these ideas or solutions from others (Rivera & Qamar, 2003). Diffusion is the process through which an innovation is communicated through certain channels over time among members in a social system (Rogers, 2003). Innovations or technologies are not communicated in a haphazard manner. Servaes (2002) explained that the diffusion of innovation approach is concerned with the process of diffusion and adoption of innovations in a systematic and planned way. Servaes' explanation suggests that proper organization and planning are critical in diffusing technologies to farmers. Without proper organization and communication planning on how to carry out successful diffusion of the technologies, the end users will not fully achieve the benefits of the technologies.

The main components of the diffusion of innovation theory include innovation, communication channels, time and social system. Rogers explained an "innovation as an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003). Rogers explained that an innovation does not necessarily have to be new. It may have been invented a long time ago, but if individuals perceive it as new, then it may be an innovation for them. Dearing (2009) further explained that the potential adopter's perceptions of the attributes of the innovation such as its effectiveness, how simple it is to understand, the extent to which it can be seen in action, can all affect the adoption of the innovation. Therefore, inferring from the explanation of Dearing (2009) the more the innovation is perceived positively, the more rapid its adoption rate is likely to be. Innovations are not communicated to the end users in a vacuum; the innovations are disseminated through channels of communication between or among two or more sources.

Rogers defined a source as an individual or an institution that originates a message and the channel as the means or medium by which a message gets from the source to the receiver(s).

The receiver in this sense is the farmer who is expected to utilize the information. The information is received through mass media and interpersonal communication channels. Examples of the mass media channels include radio, television, print media and internet platforms. The interpersonal channel involves direct, often face-to-face, communication between two or more individuals. Shedding light on the theory, Servaes (2002) explained that mass media channels were necessary to disseminate messages of awareness of new possibilities and practices. However, when it is time to decide whether to adopt or not, personal communication is far more influential. Sahin (2006) also concurred with Rogers (2003) and Servaes (2002) that the interpersonal channel is more powerful to create or change attitudes held by individuals, because mass media spread information but interpersonal communication spreads adoption. This implies that adoption of a technology such as the sustainable land and water management technology depends more on interpersonal communication, or face-to-face communication, than mass media platforms. Also, the diffusion of innovation theory considers how long it takes from the first time of knowing about the innovation until the time the innovation is adopted. Individuals vary in the length of time required to adopt an innovation. This indicates that the speed of individual farmers in the adoption of a technology varies due to what Rogers (2003) referred to as 'innovativeness'.

Rogers (2003) explained innovativeness as the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members in a social system. He defined the social system as "a set of interrelated units engaged in joint problem solving to accomplish a common goal" (Rogers, 2003). Sahin (2006) added that members or units of a social system may be individuals, informal groups and organizations. In the social system, the members work together to solve a common problem, in order to reach a mutual goal. The social system is influenced by the social structure which is the patterned arrangements of units in a social system. Dearing (2009) asserted that the social structures include the norms and values of members in the social system and the roles of opinion leaders who influence other individuals' attitudes. Therefore, the norms, value systems and other members within a social setting such as opinion leaders, the culture of the farmers, including notions on gender roles, and the implementing organization of an intervention, are critical to the adoption of new farming innovations. So, the social system affects individuals' innovativeness (earliness in adoption) which is the criterion Rogers used to categorize adopters. The adopters can be categorized into five groups which include innovators, early adopters, early majority, late majority and laggards.

2.3.1 Innovators

Innovators are those willing to experiment with new ideas. They normally take risk and are prepared for the consequences of a failure in their adventure. Dearing (2009) explained that needs or motivations differ among people according to their degree of earliness in adoption

(innovativeness) and this explains why innovators are first to adopt because of novelty and having little to lose. However, Rogers (2003) argued that in spite of their originality the innovators may not be respected by other members of the social system because the innovators are often seen as non-conformist to the norms and values of the social system. One can therefore suggest that the innovative farmers are those who are more prone to adopt new techniques of food production. Therefore, extension workers are more likely to target the innovative farmers first when introducing a new technology.

2.3..2 Early Adopters

The early majority, who are expected to adopt the innovation before the late majority and the laggards. Early adopters do not move outside the boundaries of the social system as much as the innovators. Early adopters normally hold positions in the social system and are normally opinion leaders. Therefore, other members of the social system see early adopters as role models who provide advice and information about innovations. These early adopters can be respected farmers in the community whose positive opinions about the innovation are seen as a seal of approval. An innovation is therefore expected to spread from early adopter farmers to early and late majority farmers through face-to-face communication.

2.4 History of Development Communication

Development communication has its origins in post-war international aid programs to countries in Latin America, Asia and Africa that were struggling with poverty, illiteracy, poor health and a lack of economic, political and social infrastructures. Development

communication commonly refers to the application of communication strategies and principles in the developing world. It is derived from theories of development and social change that identified the main problems of the post-war world in terms of a lack of development or progress equivalent to western countries (Waisbord, 2001).

Development theories have their roots in mid-century optimism about the prospects that large parts of the post-colonial world could eventually "catch-up" and resemble western countries. After the last remains of European empires in Africa and Asia crumbled in the 1950s and 1960s, a dominant question in policy and academic quarters was how to address the abysmal disparities between the developed and underdeveloped worlds. Development originally meant the process by which Third World societies could become more like Western developed societies as measured in terms of political system, economic growth, and educational levels (Inkeles & Smith 1974 in Waisbord 2001).

Melkote (1991) referred in Waisbord (2001) observes that development was equaled with political development, industrialization and high life expectancy. The assumption was that underdeveloped countries needed to follow the example of developed countries. Since that time, many studies have presented different meanings of development communication. Definitions portray different scientific meanings in the development field. Recent definitions explain that the main goal of development communication is to improve the quality of people's lives and their wellbeing by improving their financial status and eradicating social inequality (Melkote, 1991 in Waisbord, 2001).

According to an article on communication for development written by the Food and Agriculture Organization (FAO), Communication for Development is defined as: A social process based on dialogue using a broad range of tools and methods. Communication for Development is about seeking change at different levels including listening, establishing trust, sharing knowledge and skills, building policies, debating and learning for sustained and meaningful participation. The Communication Development process goes beyond information dissemination to facilitate active participation and stakeholder dialogue. It highlights the importance of raising awareness, the cultural dimensions of development, local knowledge, experiential learning, information sharing and the active participation of rural people and other stakeholders in decision making (FAO, 2011).

From the discussions above, it is evident that there is no singular definition for development communication and hence it is always being modified to suit the context in which it is being applied. Waisbord (2001) discusses that the aim of development communication is to achieve equality and participation in societies. With a lot of theories and concepts that have emerged during the past fifty years, many studies have offered different solutions to the problem of underdevelopment which are lack of information and power inequality. The following section will discuss what has been called 'the dominant paradigm' that will be followed by a discussion on the participation theory.

2.5 Farmer-to-farmer communication and Access to Extension Service

Smallholder agriculture is the main contributor to agricultural production in Africa and vital in increasing food and nutrition security and improving livelihoods (Wellard et al., 2013). Farmers require a wide range of information to support their farm enterprises.

Information is needed not only on best practices and technologies for crop and animal production, but also information about postharvest aspects including processing, marketing, storage, and handling.

Farmer-to-farmer communication contributes to farmers" access to extension services through the delivery of information to farmers that relate to appropriate technological options, optimal use of inputs, market demands for products, time to buy inputs and sell produce. Farmers also share information on off-farm income-generation options, credit and loans source, time of vaccinating animals and source of animal drugs. The contacts are mostly informal where people from the same or nearby communities approach individuals for information. The form of communication may involve individual farmers delivering extension messages to other farmers.

These individual farmers are given basic trainings in some cases in some subjects to extend the information to other farmers. These individual farmers may be contact farmers, experienced farmers or Village Group Animators (VGA) who are utilized by extension agents to spread agricultural information or technologies. These farmers may deliver information upon been contacted or unsolicited. Farmers" knowledge and skills in soil erosion and control measures, compost making, usage and selection of proper planting material improved following participating in trainings and meetings organized by fellow farmers.

Some forms of Farmer to Farmer communication are Community Based Extension Agents (CBAs) and Extension Women Volunteers (EWV). Under these schemes training is provided to some community members in a group to provide extension services to community members. Communities do not pay user fee for such services but in some cases group members derive some benefits in-kind from community members. The Extension Women Volunteers (EWV) provides extension services to women to address specific needs of women. The problem for these schemes is mobility as they have to reach farmers in their communities. Farmer to Farmer communication plays an important role in bridging information asymmetry gap between farmers and agricultural service providers. Micro-Financial Institutions (MFIs) use Community Based Extension Agents (CBAs) and Extension Women Volunteers (EWV) to know more about their clients in terms of their ability and willingness to pay their loans. These farmer communication groups can also serve as links between farmers and agricultural service providers.

2.6 Indigenous Communication

African Governments and their development partners often tend to extrapolate communication models and apply them wholesale in local environments in Africa that are quite unique (Mushengyezi, 2003). Many of the rural population are poor and have no formal education, they have no or little access to mass media such as radio, television (TV), newspapers, publications, internet and email. According to Akpabio (2003) indigenous communication is the process and system which utilize symbols, values and institutions which directly appeal and readily connect with the people and thus enhance the variety and effectiveness of messages that circulate in the community The way we behave, speak, stay

silent, or greet people, our way of dressing, the people we choose to befriend and the style of our work send out a multiplicity of messages to those around us. Communication involves transmission of a variety of messages to a variety of audiences and receiving of feedback. Communication is an iterative process between people who want both to share their knowledge with others, and to listen to what others have to say. Information is presented in a way which suits the needs, levels of understanding, and expectations of the audience. In Ghana the media landscape continue to grow with the infiltration of many media houses, radio stations continue to spread across the country. The increasing mobile telecommunication networks have enabled people to increase access to internet services. Modern media occupy the centre stage of planning by government. Government agencies and NGOs disseminate messages such as immunization, maternal health care, civic education and extension messages through radio, television, newspaper and internet. A lot of time and money has been spent promoting messages through modern media in attempts to reach large audiences.

Given the limited coverage and cost of modern media in many rural areas, development organizations should not overlook the significance of indigenous communication. Indigenous forms of communication such as drumming, village criers, storytelling, folk media, songs, proverbs continue to play an important role in communication among rural communities. Indigenous communication is utilized to disseminate messages among farmers in rural communities as it is embedded in the cultural ideology of the people. The information is packaged in a way relating to their own experience, background and culture. Indigenous communication is the horizontal exchange of information among people. This

form of communication does not take place through radio, television (TV), newspapers, publications, internet and email. Such communication occurs within families, at home, on farm, meetings of community organizations and market place. This communication is informal, unorganized, oral, interpersonal, controlled by the local people and involves low level of technology use. Indigenous communication includes the transmission of technologies, news, announcements, entertainment and social exchanges of every type.

Indigenous communication is "any form of endogenous communication system, which by virtue of its origin, form, and integration into a specific culture, serves as a channel for messages in a way and manner that requires the utilization of the values, symbolism, institution and ethos of the host culture through its unique qualities and attributes" (Ansu-Kyeremeh, 1998). Indigenous communication has value in its own right. It is the means by which the culture and indigenous knowledge is preserved, handed down and shared. Development programmes can use indigenous channels, both to collect and disseminate information. Development organizations tap the advantages of indigenous channels to help project officials discover the local situation. Folk media such as songs, storytelling, proverbs and group meetings are used by development organization to disseminate information. Indigenous channels allow local people to communicate among themselves and with development professionals, using forms that are familiar to them. This enables local people to participate in decision making in development programmes.

Indigenous communication can take many different forms such as folk media, indigenous organizations, deliberate instructions and informal channels. Folk media are used primarily

for entertainment, but may also promote education, social values, and cultural practices. Each culture has its own song, dance, festivals, plays, storytelling and proverbs. Extension messages are developed into songs which are used to transmit information which has the capacity to amuse and educate as well as retain much indigenous knowledge in the communities. These songs carry messages such as family planning, new crop varieties and environmental protection. There are a multitude of indigenous organizations in rural communities.

2.7 Empirical Literature Review

Eamin, Ali and Akanda (2012) in their work entitled, "Agricultural information literacy of farmers in the northern region of Bangladesh", made an attempt to explore the extent of agricultural information literacy of farmers in the northern region of Bangladesh. They analyzed that farmer's need of information for various purposes of agricultural activities, and use of different sources and media for access to such information. According to the author's many of the famers, however, are not well aware of modern techniques of agriculture, and they occasionally use such techniques for farming. Due to some problems farmers are moderately satisfied in getting agricultural information, and in many cases their satisfaction level is very low. They concluded with providing certain recommendations for the improvement of information literacy of the farmers in Bangladesh.

Asenso (2012) worked on, "The Importance of ICTs in the Provision of Information for Improving Agricultural Productivity and Rural Incomes in Africa". This paper looks at the evidence on the role of emerging ICTs in the agricultural sector in Africa with lessons from

Asia with respect to farmers' access to information and other services that would help improve agricultural productivity, practices, and farmer livelihoods. Author suggests that countries should avoid monopoly situations and encourage pluralistic providers to induce competition for higher efficiency and lower costs to consumers. It was also indicated that the project improved the livelihood of rural farmers mainly by strengthening human capital to increase financial capital through improved access to information on better agricultural practices and market information.

Razaque et.al (2012) conducted study on "The role of television in dissemination of agriculture information among formers". Author conducted the study in Sindh region of Pakistan. In the study area 87.7% of respondents have their own television set, among them only 18% of respondents preferred to watch agricultural information or programs on television. Perception about television provides such programs which increase the income of farmers 84.3% respondents said that television doesn't provide such kind of programs which increase the income of farmers.

Oladeji et.al (2011) in their article entitled, "Agricultural information needs of root and tuber farmers in the Atisbo local government area of Oyo state", assessed the agricultural information needs of root and tuber crop farmers in the Atisbo local government area of Oyo state. Author observed that lack of agricultural information is a key factor that has greatly limited agricultural advancement in developing countries. A regular supply of materials is needed by root and tuber crop farmers based on identified needs. Agricultural information reported as highly needed by respondents including marketing procedures,

processing and improved planting techniques and soil management methods. According to author extension agents should ensure dissemination of timely information, especially to control crop diseases.

Allahyari et.al (2010) in their work entitled, "Potentials of new information and communication technologies in agriculture sector", identified the potentials of new information and communications technologies in agricultural and rural sector.

They observed that there is a widespread belief that information and knowledge are vital for rural and agricultural development. According to author, today generation of new and various information and knowledge sources need new information and communication channels. Information and communication technologies can decrease poverty by promotion rural people access to education, health, government and financial services. Authors concluded that information communication technology lead to improve the living of poor rural families that will have significant direct and indirect effects on promoting the agricultural products, marketing and post-harvest activities.

Godfrey (2010) in the work entitled "Information and Communication Technology for Farmers market access", an attempt to analyze the impact of information and communication technology for rural farmers market information. It provides valuable information to policy and decision makers on how best to develop ICT in order to benefit rural farmers in accessing market information. Strengthening farmers' groups for marketing is important to facilitate access for ICT facilities. Establishing market information centers and tele-centers in rural areas could boost access to market information. Author

recommends that rural electrification is invested both by the government as well as private sector will definitely boost ICT investment in rural areas. According to author there has been also a need to ensure relatively cheap and sustainable renewable energy sources to keep up with ICT facilities.

Ommani et.al (2008) in their work entitled, "Information dissemination system based E-Learning in agricultural of Iran", made an attempt to designing information dissemination system based E-Learning in agriculture of Iran. They explained that Iranian farmers need timely expert advice to improving their practices. In this paper they try to present a system to information dissemination in agriculture of Iran based on the perception of Iranian agents. According to authors knowledge produced by the agricultural scientist must be transformed in to computer understandable presentation. Establish communication between farmer's coordinators, agricultural experts, research centers, and community by information technology and it must be based on farmers need.

Tadesse (2008) worked on "Access and Utilization of Agricultural Information by Resettler Farming Households: The Case of Metema Woreda, North Gondar, Ethiopia". The study aimed at assessing the new and previous settler farmers' access to and utilization of agricultural information from the extension service and as well as to identify the influencing factors. It explained the importance of well-organized agricultural information provision and supporting utilization of information through the delivery of credit and technologies based on the farmers' problem and need. Therefore, policy and development interventions should give emphasis to improvement of such institutional support system so

as to enhance the production and productivity of agriculture and to achieve the desired poverty reduction strategy in the resettlement program.

Amelia (1985) in the work entitled "Agricultural information services in developing countries for private and public decision making", analyzed the role of information in agriculture decision making process. The author examines the information services as key important intermediary in agricultural decision making. According to author, it is difficult to identify the information available to agriculture decision making, because of the very nature of the date base in this field. Author explained that the effective information services will help the farmers, traders, agriculture officials and policy makers in their in their decision making. Hence, the government in developing countries should develop systematic information services in order to protect the interest of farmers and parties involved in it.

Kumar (2012) in the work entitled, "Role of Information in Agricultural Development of Odisha", aims to discuss areas of information needs for various stakeholders in agricultural sector in the developing state of Odisha. Access to right information and its proper utilization for the farming community is the order of the day which needs to be practiced in the state. Author suggested that extension professionals should carry publicity materials and distribute success stories in agriculture so that it may make great impact upon farmers with needed information. Hence, extension professionals working in agricultural sector should develop better visioning and empower the farmers with latest technology and farming practices.

Reddy (2001) in the work entitled "Communication Strategies for Creating Sustainable Public Awareness on Agricultural Biotechnology", charts out the importance of public awareness and political confidence which encourages future investment, and improves the usage of Biotechnology products. He also clarifies the importance of providing the public with information on how the biotechnologically derived products must be clearly distinguished.

2.8 Chapter Summary

The literature review has shown that more studies on communication strategies for farmers and among farmers have been conducted in areas outside of Ghana. The review has revealed that there is limited study conducted in Ghana on communication strategies used for farmers. Therefore this study is focused on filling in the gap in the literature.

CHAPTER THREE

METHODOLOGY OF STUDY

3.1 Introduction

This chapter gives an account of the study methods, design and steps taken by the researcher. The methodology is an important part of the study, as it reflects on the quality of the data collected, findings and interpretation of the data. The chapter details the study tools and techniques employed for data collection. The study population, and how the study sample was selected are also described and details of study variables are provided. Both data handling and ethical considerations are all mentioned in this section follow by data analysis.

3.2   Profile of Study area – Volta Region

Volta Region is one of the ten regions in Ghana. It lies on the eastern side of the country. The region derived its name from the Volta River, which virtually separates it from the rest of the country. The region is unique in the sense that it is the longest of the regions and has all the ecological zones and ethnic groups found in Ghana living in it as indigenes. For this uniqueness, the region is described as a microcosm of the country. Historically, the northern part of region, with the exception of the regional capital, Ho, was part of the German colony, while the southern part was administered as part of the Gold Coast colony. After Germany"s defeat in World War I, its colony of Togoland was partitioned. One portion was placed under the protectorate of Britain as the British Togo. The other, under French protectorate, became the French Togo, now the Republic of Togo. The British protectorate of Togoland, later to be known as Trans-Volta Togoland (TVT), was

administered by the Governor of the Gold Coast. After Ghana achieved independence in 1957, the Parliament adopted a resolution to merge and integrate the Trans-Volta Togoland with Ghana, under the name Volta Region.

3.2.1 Physical features

3.2.1.1 Location and Area

The region is located between latitudes 50 45"N and 80 45"N along the southern half of the eastern border of Ghana, which it shares with the Republic of Togo. It shares boundaries to the west with Greater Accra, Eastern and Brong Ahafo regions, to the north with the Northern Region and has the Gulf of Guinea to the south. Its total land area is 20,570 square kilometres, representing 8.7 percent of the total land area of Ghana.

3.2.1.2 Climate

Like the rest of Ghana, the Volta Region has a tropical climate, characterized by moderate temperatures of 21-320 Celsius (70-900 F) for most of the year. The region has two rainfall regimes, the first from March to July and the second from mid-August to October. Rainfall figures, which vary greatly throughout the region, are highest in the central highland area and the forest zone and lowest in the Sahel-savannah zone in the northern part of the region. The average annual rainfall is between a low of 1,168 mm and a high of 2,103 mm.

3.2.1.3 Vegetation

The region is about 500 kilometres in length from south to north and spans all the vegetation zones of the country including costal grassland, mangrove swamps, guinea savannah, semi-deciduous forests, Sahel-savannah and mountainous wooded savannah in the north. Thus the region has competitive advantage over other regions for the cultivation of many crops. The middle and northern belts are mainly mountainous, with Mount Afadzato (885 m) being the highest peak in the country. The south is flat with marshy and sandy portions. These coastal areas are estimated to be less than 15 metres above sea level.

3.3 Research Methods

Against the background of this research, the methodological approach to data gathering was varied. The study employed the integrated approach also referred to as the mixed methods. It was a mix of methodologies - but with more emphasis on qualitative methods which underscores the importance of triangulation to enhance data validity (Senah, 1997) and at the same time, it allows for a better understanding of the problem when both methods are used (Cresswell and Clark, 2007).

Mixed methods (Tashakkori & Teddlie, 2003) design was used for this study. It is a procedure for collecting, analyzing and "mixing" both quantitative and qualitative data at some stage of the research process within a single study, to understand a research problem more completely (Creswell, 2002). The rationale for mixing is that neither quantitative nor qualitative methods are sufficient by themselves to capture the trends and details of the situation. When used in combination, quantitative and qualitative methods complement

each other and allow for more complete analysis (Green, Caracelli, & Graham, 1989, Tashakkori & Teddlie, 1998).

In qualitative research, it is an inquiry process of understanding" where the researcher develops a "complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting (Creswell, 1998). In this approach, the researcher makes knowledge claims based on the constructivist (Guba & Lincoln, 1982) or advocacy/participatory (Mertens, 2003) perspectives. In qualitative research, data is collected from those immersed in everyday life of the setting in which the study is framed. Data analysis is based on the values that these participants perceive for their world. Ultimately, it "produces an understanding of the problem based on multiple contextual factors" (Miller, 2000).

Alternatively, in quantitative research, the investigator relies on numerical data (Charles & Mertler, 2002). The researcher uses post positivist claims for developing knowledge, such as cause and effect thinking, reduction to specific variables, hypotheses and questions, use of measurement and observation, and the test of theories. A researcher isolates variables and causally relates them to determine the magnitude and frequency of relationships. In addition, a researcher himself/herself determines which variables to investigate and chooses instruments, which will yield highly reliable and valid scores.

In a mixed methods approach, the researchers build the knowledge on pragmatic grounds (Creswell, 2003; Maxcy, 2003) asserting truth is "what works" (Howe, 1988). They choose approaches, as well as variables and units of analysis, which are most appropriate for

finding an answer to their research question (Tashakkori & Teddlie, 1998). A major tenet of pragmatism is that quantitative and qualitative methods are compatible. Thus, both numerical and text data, collected sequentially or concurrently, can help better understand the research problem.

The quantitative, numeric, data was collected using the questionnaire. The goal of the quantitative phase was to come out with descriptive statistics to talk about the socio-demographic characteristics of the respondents.

In the second phase, a qualitative approach was used to collect text data through individual interviews, focus group discussion, observation and documents, to help explain the phenomenon into detail from their own worldview. The rationale for this approach was that the quantitative data and results provide a general picture of the research problem, while the qualitative data and its analysis refined and explained those statistical results by exploring participants' views in more depth. The results of the two approaches were integrated during the discussion of the outcomes of the whole study.

Some of the advantages of this method are that, it is very easy to implement by a single researcher, as it is sequentially proceeds from one stage to the other and also very useful when unexpected results arise from a quantitative study (Morse, 1991). However, the method requires feasibility limitation of resources to collect and analyze both types of data and also it takes a long time to complete the process from data collection to analysis and conclusion.

Quantitative technique in this study was the survey method used in administering questionnaires to the farmers who were randomly selected from the communities which were purposively selected for the study. The method was relevant in areas where frequency, duration, timing (when particular things happen), intensity, level, were needed for illustrations. As Babbie (2001) notes, surveys are excellent vehicles for the measurement of attitudes and orientations prevalent within a large population. For instance, descriptive statistics was used in analyzing the age, education, sex and religious status of the household members including the heads. The method was able to tell the changes and at a particular degree of reliability, whether those changes were likely to have been caused by the intervention or program, or by another factor, known or unknown.

The method employed in the qualitative approach were Focus group discussion, in-depth interviews, observation were all used. Analysis of qualitative data is generally accomplished by methods more subjective – dependent on people's opinions, knowledge, assumptions, and inferences (and therefore biases) – than that of quantitative data.

3.4 Selecting the research communities

The research used purposive sampling in selecting the research locations. First of all, the Volta Region was suggested for fieldwork because majority of the population is engaged in food production.

3.5 Data Sources

Data gathering was from both primary and secondary sources. Primary data was obtained from administering questionnaire to respondents as well as through interviews. Whilst secondary data sources were from both the Ministry of Food and Agriculture and Environmental Protection Agency as well as published documents including relevant literature and journals and other scholarly sites of the internet (such as google, yahoo, jstor, pub-med) were read to fish out the missing information.

Figure 3.1: Data Sources
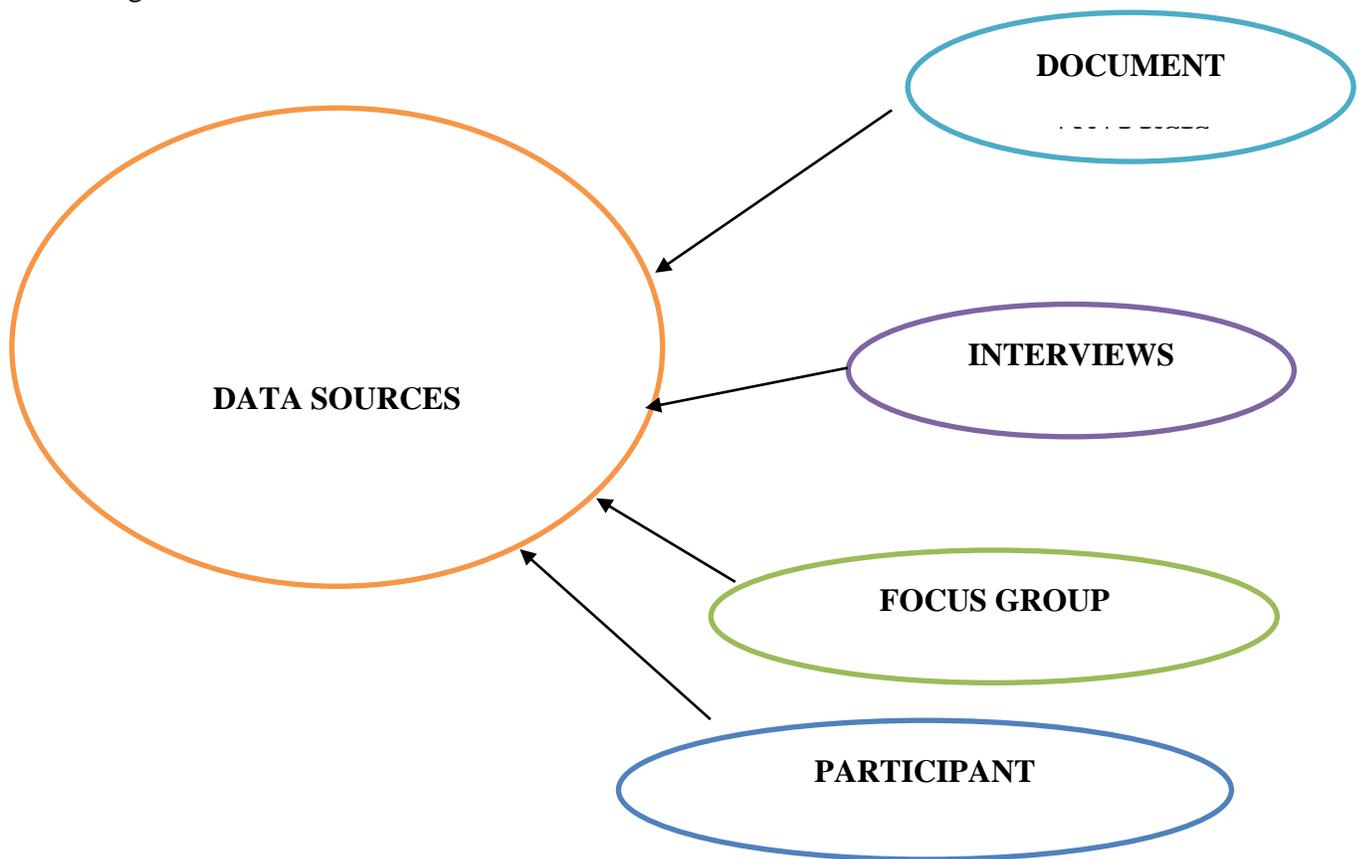
Source: Authors Own Construct, 2018

3.6 Sampling Procedure and Techniques

The sampling frame was made up of all farmers in households/compounds from each of the two study locations namely Sogakope and Akuse areas in the Volta region of Ghana. Selection of respondents for the study was achieved through a multistage sampling technique. In the first stage the towns from which respondents will be selected was chosen. The purposive sampling technique was used to achieve this. In the second stage the communities to be visited were selected using the purposive and simple random sampling. This was achieved by the assistance of the districts' MOFA officials and the assemblyman and woman of the districts. The third and final stage was the selection of the farmers which were sampled for the study. Respondents again were selected using simple random sampling and data regarding their socio-economic characteristics. To ensure that the data was devoid of bias, where in a structure there were more than eligible respondents, the simple random procedure was used to select one. This was done until the required number was obtained. In all one hundred and fifty (150) farmers were chosen for the study. The primary data of the study was obtained from the repondents through the use of structured questionnaire and interview guide, whilst the secondary data was obtained from published documents such as textbooks and journals.

3.7 Data Analysis

After gathering all the data, they were analyzed using both quantitative and qualitative analysis. The Statistical Package for Social Sciences (SPSS version 20) was used for the quantitative analysis. On the other hand the data obtained through the in-depth interviews

and focus group discussions were analyzed critically and descriptively. This analysis included the compilation and transcription of findings from a qualitative perspective similar to the process that Bryman and Teevan (2005:289) calls "coding". Descriptive statistics were used for the quantitative data to provide simple summaries on observations.

3.8 Ethical considerations

In research studies where human beings are used as the subject and units for analyzing data, it's always necessary to take into consideration ethical issues so that those ethical issues can be addressed. According to Kent (1996 in Silverman, 2005), it's prudent for the consent of respondents used for a study to be sought by a researcher and this is achieved by the researcher providing copious information to the respondents concerning the research to be conducted. When this happens, it allows for the responses to make decisions for voluntary participation. It is also imperative that the respondents understand how the information being gathered will be utilized The researcher had an interpreter (retired extension officer with MOFA) who is known to the respondents with me, so they were very comfortable and responding to almost all the questions posed to them. Ethical considerations made in this study were that respondents' names were not recorded. Also the whole purpose of the study was fully explained to the respondents for them to understand before the start of the data gathering process.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results of the study as well as the discussion of the study findings. The responses from the questionnaire and interview guide are discussed in this chapter.

4.2 Demographic profile of the respondents

This section presents the demographics of the farmers. In all one hundred and fifty (150) farmers were sampled for this study. The demographics discussed in this section are the gender, age distribution, marital status and educational level. The respected frequencies and percentages have been presented in the subsequent table indicated below.

Table 4. 1: Demographic Characteristics of the Farmers

Demographics	Frequency (N)	Percentage (%)
Sex		
Male	95	63.33
Female	55	36.67
Age Distribution		
20-29 years	15	10
30-39 years	46	30.67
40-49 years	52	34.67
50-59 years	23	15.33
60 years and above	14	9.33
Marital Status		
Married	74	49.33
Single	25	16.67
Separated	16	10.67
Divorced	21	14
Widowed	14	9.33
Educational level		
SSSCE/WASSCE/Technical Certificate	112	74.67
HND	20	13.33
Degree	12	8
Masters	6	4

Source: Field Survey, 2018

4.2.1 Sex of the respondents

The study presents details on the sex of the respondents as displayed on Table 4.1. From Table 4.1, majority (95) of the farmers are males representing 63.33% of the farmers sampled for the study, whereas the remaining 55 are females representing 36.67%. This implies that both male and female farmers were sampled for this study to mitigate any bias that might be attributed to gender association. It must also be emphasized that there were more male farmers than female farmers.

4.2.2 Age of the respondents

Furthermore, Table 4.1 presents the age details of the respondents who are also the farmers sampled for this study. According to Table 4.1, there are five (5) different age groups of the respondents. From these, majority (52) of the respondents which represents 34.67% fall in the age bracket of 40-49 years, followed by those in the age group of 30-39 who constitute 46 of the farmers representing 30.67% of the entire farmers sampled for the study. This is followed by those between the age group of 50-59 years who were 23 representing 15.33%. Furthermore, 15 of the farmers were between the age category 2029 years representing 10% of the entire farmers sampled for the study. Lastly, 14 of the farmers were 60 years and above and this represents 9.33% of the sampled farmers. These results imply that farmers of all age categories were sampled for this study and also those within the youthful age formed the majority.

4.2.3 Marital Status

The marital status of the farmers was also identified in the study. This has also been indicated in Table 4.1. From the table it is shown that majority (74) of the farmers are married representing 49.33% of the farmers. Also 25 of the farmers are single representing 16.67% of the respondents. Those farmers who were divorced were 21 and represents 14% of the entire farmers. Moreover, 16 of the farmers indicated they are separated and this formed 10.67% of the farmers. Lastly 14 of the farmers indicated that they are widowed representing 9.33% of the farmers who were sampled for the study.

4.2.4 Educational Attainment/Background

The educational level of the respondents is also featured on Table 4.1. Majority (112) of the farmers indicated that they have SSSCE/WASSCE/ Technical Certificate representing 74.67% of the farmers. Also 20 of the farmers said they have HND certificate representing 13.33%. Furthermore, 12 of the respondents have degree certificate representing 8%. Lastly, 6 of the farmers have their Master's degree representing 4% of the entire farmers sampled for the study. The results imply that there is low level of education among the farmers however a few of them have been to the polytechnic and university.

4.3 Input distribution Strategy

The study sought to assess the Input distribution used by RMG communications on the farmers. The details have been discussed in the sub-sections that follow.

4.3.1 Farmers Knowledge about RMG

The farmers were asked to indicate what they know about RMG communications. The responses given by the respondents are indicated in the Table 4.2 below.

Table 4. 2: Knowledge on RMG

Knowledge on RMG Communications	Frequency	Percentage (%)
They provide seed and fertilizer	88	57.33
They help vulnerable People or farmers	64	42.67
Do not know anything	0	0
Total	150	100

Source: Field Survey, 2018

From Table 4.2, it can be seen that majority (86) of the farmers indicated that they know RMG to provide seeds and fertilizers to farmers representing 57.33%, whiles 64 of the respondents indicated that they know RMG to help vulnerable people or farmers. The results shows that the farmers have some knowledge about RMG Input distribution programmeand it is that they are there to help farmers in one way or the other as indicated by the farmers. The farmers have shown that they are aware of the activities of RMG communications and therefore will be able to provide credible and reliable information for the study.

4.3.2 Beneficiary of RMG Input distributionProgrammes

The respondents who are the farmers were asked whether they have benefitted from programmes organized by RMG communications. The responses giving by the respondents are indicated in Table 4.3 below.

Table 4. 3: Beneficiary of RMG Programmes

Beneficiary of RMG Programmes	Frequency	Percentage (%)
Yes	150	100
No	0	0
Total	150	100

Source: Field Survey, 2018

From Table 4.3, it can be seen that all the farmers (150) said they are beneficiaries of RMG programmes. They indicated they have received assistance from RMG programmes.

4.3.3 Number of years engaged with RMG Input distribution

The farmers were again asked to indicate how long they have been engaged with RMG communications. The respondents gave their responses and the responses have been analyzed in Table 4.4 shown below.

Table 4. 4: Years engaged with RMG Communications

Number of years	Frequency	Percentage (%)
1 year	35	23.33
2 years	50	33.33
3 years and above	65	43.33
Total	150	100

Source: Field Survey, 2018

From Table 4.4, it can be seen that majority (65) of the farmers have been engaged with RMG communications for 3 years and above and this represents 43.33% of the sampled respondents. Furthermore, 50 of the farmers indicated that they have been engaged with RMG communications for 2 years representing 33.33% of the sampled respondents. Lastly, 35 of the farmers said that they have been engaged with RMG communications for 1 year representing 23.33% of the sampled respondents. The results imply that all the farmers have been engaged with RMG communications for some time now and as such have benefitted from the services provided by RMG communications.

4.3.4 Kind of assistance received by farmers from RMG Programmes

The study sought to find out from the farmers, the kind of assistance they receive from RMG communications. The responses giving by the farmers have been analyzed in the Table 4.5 indicated below.

Table 4. 5: Kind of assistance received by farmers

Kind of assistance	Frequency	Percentage (%)
Fertilizer (both top & down dressing)	32	21.33
Seed	28	18.67
Fertilizer and Seed	50	33.33
Agro chemicals	40	26.67
Total	150	100

Source: Field Survey, 2018

From Table 4.5, it is observed that majority (50) of the farmers did indicate that they have received fertilizer and seed as an assistance from RMG communications representing 33.33%. Furthermore, 40 of the farmers said they have received Agro chemicals assistance from RMG communications and this represent 26.67%. Also, 32 of the farmers said that they have received fertilizer (both top and down) from RMG communications and this also represent 21.33% of the sampled farmers. Lastly, 28 of the farmers indicated that they received seed from RMG communications and this also represents 18.67% of the entire farmers sampled for the study. The results have shown that the assistance received by the farmers from RMG communications, range from fertilizers, seed and agro chemicals.

4.3.5 Farmers rating of effectiveness and efficiency of RMG Communications Strategy

Again, the study sought to find out how the farmers will rate the effectiveness and efficiency of RMG communications strategy. The farmers were asked to rate this as excellent, very good, good, poor or very poor. The respondents gave their opinions and this has been analyzed in Table 4.6 indicated below.

Table 4. 6: How you Rate RMG Input distribution

Rating	Frequency	Percentage (%)
Excellent	64	42.67
Very good	45	30
Good	41	27.33
Poor	0	0
Very poor	0	0
Total	150	100

Source: Field Survey, 2018

From Table 4.6, it shows that a greater portion of the farmers (64) said that they rate the Input distribution of RMG as excellent representing 42.67% of the farmers. Furthermore, 45 of the farmers said they rate the strategy of RMG communications as very good and this represents 30% of the entire farmers that were sampled for the study. Also 41 of the farmers indicated that they rate the communication of RMG communications as good and this also represents 27.33% of the farmers. As noted from the table, none of the farmers rated the

strategy used by RMG as poor nor very poor. This implies that the farmers are really

benefitting from the assistance they receive from RMG communications.

4.4 What needs to be done to improve RMG Communication ?

The farmers were asked to state what they think can be done to improve the Input

distributionstrategy employed by RMG communications. The farmers stated a number of

things and among them were there should be early delivery of inputs. Also they said that

they must give more chemicals, increase inputs. Furthermore, the farmers indicated that

there should be more information on farming methods and also there should be more

information on inputs.

4.5 Interview with RMG Communications Officials

4.5.1 Longevity of involving with RMG Communications

The RMG officers indicated that they have been working with RMG communications for

some time now. Averagely the officers have been working with RMG communications

for a period of three (3) years.

4.5.2 Merits and Demerits of RMG Input distributionProgramme

Farmers are doing better; they are able to secure food, pay for bills and able to make

cooperative contributions. On the other hand, it is difficult to determine whether farmers

are progressing or not because it is the same farmers that benefit every year since the

programme started and they have never graduated.

4.5.3 Criteria used to Select Eligible Farmers

Programme is open to all viable but resource poor individuals regardless of their sex. All farmers are encouraged to join cooperatives so that they can benefit from the programme. Women are encouraged to join or form cooperatives so that they can benefit from the programme.

4.5.4 Have Communication strategy put in place

RMG Input distributions have Input distribution strategy in place which makes it expedient to pass on copious information to their targeted farmers. The Input distribution make it possible to pass on agricultural information to the farmers on time.

4.5.5 What kind of information is giving to the potential beneficiary farmers?

Information about good farming practices, about RMG Input distribution programme, formation of cooperatives, conservation farming, as well as about prices of inputs. Information about anything that comes up and problems that farmers encounter, for example information about chemicals and how to get rid of army worms and other pests. Very important as it teaches farmers good farming practices and they become knowledgeable about how to go about farming and how to access inputs from RMG Input distributions.

4.5.7 Effectiveness and Efficiency of Input distribution programes channels

Very effective because the interaction between farmers and extension officers builds confidence and trust in the programme. Farmers have improved greatly on how they manage their fields and also knowledge on chemicals and pesticides have improved. Through farmer magazines and newsletters, farmers have learnt about the different types of seeds available and their benefits

4.5.8 Challenges faced with RMG input distribution

There are some challenges faced with RMG input distribution. This includes inadequate funding, Transport, late delivery of inputs; poor road infrastructure which makes it difficult to transport inputs and to carry out field visits. The roads leading to farms are inaccessible and as such make it difficult for farm visits and also make it cumbersome to carry out field demonstrations.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This part of study presents on the summary of the findings of the study, the conclusions and finally the recommendations based on the main findings of the study.

5.2 Summary of Findings

The study found out that majority (95) of the farmers are males representing 63.33% of the farmers sampled for the study, whereas the remaining 55 are females representing 36.67%. Moreover, the study found out that there were five (5) different age groups of the respondents. From these, majority (52) of the respondents which represents 34.67% fall in the age bracket of 40-49 years, followed by those in the age group of 30-39 who constitute 46 of the farmers representing 30.67% of the entire farmers sampled for the study. This is followed by those between the age group of 50-59 years who were 23 representing 15.33%. Furthermore, 15 of the farmers were between the age category 2029 years representing 10% of the entire farmers sampled for the study. Lastly, 14 of the farmers were 60 years and above and this represents 9.33% of the sampled farmers. The marital status of the farmers was also identified in the study. Majority (74) of the farmers are married representing 49.33% of the farmers. Also 25 of the farmers are single representing 16.67% of the respondents. Those farmers who were divorced were 21 and represents 14% of the entire farmers. Moreover, 16 of the farmers indicated they are separated and this formed

10.67% of the farmers. Lastly 14 of the farmers indicated that they are widowed representing 9.33% of the farmers who were sampled for the study.

The study also found out that Majority (112) of the farmers indicated that they have SSSCE/WASSCE/ Technical Certificate representing 74.67% of the farmers. Also 20 of the farmers said they have HND certificate representing 13.33%. Furthermore, 12 of the respondents have degree certificate representing 8%. Lastly, 6 of the farmers have their Master's degree representing 4% of the entire farmers sampled for the study.

Majority (86) of the farmers indicated that they know RMG to provide seeds and fertilizers to farmers representing 57.33%, whiles 64 of the respondents indicated that they know RMG to help vulnerable people or farmers. The results shows that the farmers have some knowledge about RMG Input distribution and it is that they are there to help farmers in one way or the other as indicated by the farmers. The farmers have shown that they are aware of the activities of RMG Input distributions and therefore will be able to provide credible and reliable information for the study. All the farmers indicated that they have received assistance from RMG programmes.

Also the study found out that majority (65) of the farmers have been engaged with RMG input distribution for 3 years and above and this represents 43.33% of the sampled respondents. Furthermore, 50 of the farmers indicated that they have been engaged with RMG Input distributions for 2 years representing 33.33% of the sampled respondents.

Lastly, 35 of the farmers said that they have been engaged with RMG Input distributions for 1 year representing 23.33% of the sampled respondents.

It was observed that majority (50) of the farmers did indicate that they have received fertilizer and seed as an assistance from RMG Input distributions representing 33.33%. Furthermore, 40 of the farmers said they have received Agro chemicals assistance from RMG Input distributions and this represent 26.67%. Also, 32 of the farmers said that they have received fertilizer (both top and down) from RMG Input distributions and this also represent 21.33% of the sampled farmers. Lastly, 28 of the farmers indicated that they received seed from RMG Input distributions and this also represents 18.67% of the entire farmers sampled for the study.

A greater portion of the farmers (64) said that they rate the Input distribution of RMG as excellent representing 42.67% of the farmers. Furthermore, 45 of the farmers said they rate of RMG Input distributions as very good and this represents 30% of the entire farmers that were sampled for the study. Also 41 of the farmers indicated that they rate the input distribution of RMG as good and this also represents 27.33% of the farmers

The study found out that the farmers stated a number of things that could be done to improve the Input distribution of RMG and among them were there should be early delivery of inputs. Also they said that they must give more chemicals, increase inputs. Furthermore, the farmers indicated that there should be more information on farming methods and also there should be more information on inputs.

The RMG officers indicated that they have been working with RMG for some time now. Averagely the officers have been working with RMG for a period of three (3) years. Farmers are doing better; they are able to secure food, pay for bills and able to make cooperative contributions. On the other hand, it is difficult to determine whether farmers are progressing or not because it is the same farmers that benefit every year since the programme started and they have never graduated. Programme is open to all viable but resource poor individuals regardless of their sex. All farmers are encouraged to join cooperatives so that they can benefit from the programme. Women are encouraged to join or form cooperatives so that they can benefit from the programme. RMG have communication strategy in place which makes it expedient to pass on copious information to their targeted farmers. The Input distribution make it possible to pass on agricultural information to the farmers on time. Information about good farming practices, about RMG input distribution programme, formation of cooperatives, conservation farming, as well as about prices of inputs. Information about anything that comes up and problems that farmers encounter, for example information about chemicals and how to get rid of army worms and other pests. Very important as it teaches farmers good farming practices and they become knowledgeable about how to go about farming and how to access inputs from RMG .

Extension officers from RMG pass on the information to the farmers and also letters are used. There is also verbal communication where telephones are used to pass on information to the farmers. RMG input distribution was found to be very effective because the interaction between farmers and extension officers builds confidence and trust in the

programme. Farmers have improved greatly on how they manage their fields and also knowledge on chemicals and pesticides have improved. Through farmer magazines and newsletters, farmers have learnt about the different types of seeds available and their benefits the study also found out that there are some challenges faced with RMG Input distribution programme. This includes inadequate funding, Transport, late delivery of inputs; poor road infrastructure which makes it difficult to transport inputs and to carry out field visits. The roads leading to farms are inaccessible and as such make it difficult for farm visits and also make it cumbersome to carry out field demonstrations.

5.3 Conclusions

The findings from the study have showed that farmers receive a lot of benefits from RMG Input distribution programmes. Among them were seeds, fertilizers and agro chemicals. Furthermore, the input distribution strategies used by RMG was rated by the farmers to be excellent, very good and good. The RMG officials also indicated that they face some challenges with the Input distribution. These challenges were poor road and inaccessible roads that leads to late delivery of inputs and also affects field visits and demonstrations

5.4 Recommendations

Based on the findings of the study, the following recommendations are made;

Since the farmers perceived the input distribution by RMG to be excellent, very good and good, it is recommended that RMG distribution should continue with their strategy they are using as it is benefiting all the farmers.

It is also recommended to the assemblyman/woman or government agencies to help fix the poor roads and also inaccessible roads must be made accessible so that inputs can be delivered on time to the farmers. This will also ensure that farm visits and farm demonstrations are made on farms. This will help to increase farmers' yields.

Farming is labour intensive therefore there is need for farmers to be given enough information on the requirements of farming and what needs to be done for them to conduct successful farming and also need to be guided on how to manage their fields.

REFERENCES

Akpabio, E. (2003). *African communication systems: An introductory text*: Metaphysics and gender in an African ritual play. African Notes, 22 (1 & 2) 58. Lagos: B Print Publications. Layiwola, Dele. Gelede.

Allahyari, T. S., Patel, N., & Schwartzman, Y. (2010). A Survey of Information Systems Reaching Small Producers in Global Agricultural Value Chains. In: Proceedings of IEEE Conference on Information and Communication Technologies for Development. 15-16 December 2010, Bangalore, India.

Amelia, R.A., (1985). *Developing the Third World: A communication approach*. Nova Science Publishers, Commack, New York.

Ansu-Kyeremeh, K. (1998). *Perspectives of indigenous communication in Africa. Ghana University Press, Accra*

Asenso-Okyere, K. (2012). *Review of agricultural extension in India. Are farmers information needs been met?. IFPRI discussion paper 01048 December, 2012.*

Asiedu-Darko, E. (2013). Agricultural extension delivery in Ghana: A case study of factors affecting it in Ashanti, Eastern and Northern regions of Ghana. *Journal of Agricultural Extension and Rural Development*, 5(2), 37-41.doi:10.5897/JAERD12.121.

Babbie, E. (2001). The practice of social research. Cape Town: Oxford University Press.

Barelson, G. H. (1964). *Guide on alternative extension approaches.* Agricultural Education and Extension Service (ESHE) Human Resources Institutions and Agrarian Reform Division. FAO Rome, 1964.

Black, R. et al (2006). *Migration and Development in Africa: An overview. African*

Migration and Development Series No. 1 Southern African Migration Project.

Bramel, P, Remington, T., McNeil, M. (2004) CRS Seed Vouchers & Fairs: Using

  Markets in Disaster Response; CRS East Africa, Nairobi, Kenya, pp. 51-57

Charles, C.A. & Mertler, C.M. (2002). Introduction to educational research

Creswell, H. (1998).Comprehensive Food Security & Vulnerability Analysis

  (CFSVA): Ghana. United Nations World Food Programme.

Creswell H. (2002). Facilitating agricultural technology adoption among the poor: The

  role of service delivery through mobile phones (No. 93). ZEF Working Paper

  Series. Retrieved on 26 July, 2018 fromhttp://www.econstor.eu

Creswell, H. & Clark, J. (2007).Comprehensive Food Security & Vulnerability Analysis

  (CFSVA): Ghana. United Nations World Food Programme. Retrieved from March

  15, 2018 from http://www.africaportal.org/articles/2013/08/14/food-insecurity-

  northern-ghana-policy-issues-historical-context

Davis, K. (2013). Extension and Africa agriculture status report, No. 151.

Dearing, J. W. (2009). Applying diffusion of innovation theory to intervention development.

  Research on social work practice,*19*(5): 503–518. doi:10.1177/1049731509335569.

Eamin, A. Ali, K. & Akanda, M.(2012). Roknuzzaman Agricultural Information

  Literacy of Farmers in the Northern Region of Bangladesh

Elkamel, K. (1986). *Agriculture and climate change: An agenda for negotiation in*

  Copenhagen. The important role of extension systems. Washington, D.C.:

  International Food Policy Research Institute (IFPRI)

Food and Agricultural Organization (FAO). (2013). International year of rice 2004.

  hundred and twenty-seventh session. Roma, 22-27 November, 2014.

Ghana Statistical Service (2014). Ghana living standards survey report of the fifth round
(GLSS 5).

Godfrey, M. (2010). Information flow in agriculture – through new channels for
improved effectiveness. *Journal of Agricultural Informatics*. 1: 25 – 34.

Green, H. Caracelli, M. & Graham, M. I. (1989). Focus group research: Towards an
applied for Africa. Topical Issues in Communication and Media Research (pp.173-
197). New York; NY: Nova Science.

Guba, L. & Lincoln, S. (1982). *The diffusion of innovations among farm households in North
West Vietnam).*

Howe, K. R. (1988). Against the quantitative-qualitative incompatibility thesis, or,
Dogmas die hard. Educational Researcher, 17, 10-16.

Infante, B.K., Sharma, C., Sapkota, G., Sharma, G., Karki, H. & Thagunna, K.S. (1997).
Agriculture development through VDC -Guidelines for Service Delivery by
Experienced Leader Farmers for Sustainable Agriculture Promotion, Sustainable
Soil Management Programme (SSMP), Bakhundole, Lalitpur, Nepal.

Inkeles A. & Smith D.H., (1974). Becoming Modern – Individual Change in Six
Developing Countries. Harvard University Press, Cambridge, MA.

Kent, K.A (1996). Inequalities in the delivery of services to a female from clientele: some
implications for policy. Nairobi, Kenya: Institute of Development Studies,
University of Nairobi.

Kachule,R.N. & Chilongo, T.M. S, (2007), *Malawi Input Voucher Study: A Literature*

Review on Agricultural Marketing and Input Voucher Systems: Discussion Paper 85 Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), June 2007.

Kumar, O. J (2012). A study of women farmers' agricultural information needs and accessibility: A case study of Apa Local Government Area of Benue State, Nigeria, *African Journal of Agricultural Research*, 4: 1404 – 1409.

Massey, D.S.,Goldring, L. & Durand, J. (1994).Continuities in transnational migration: analysis of nineteen Mexican communities.American Journal of Sociology; pp.11492-11533.

Mefalopulos, P, (2004), *Participatory Communication Strategy Design,* 2nd ed. FAO/SADC, Rome.

Melkote, S.R., (1991). Communication for Development in the Third World.Sage Publications, New Delhi, India.

Mertens, E. (2003). Agricultural extension delivery in Ghana: *Journal of Agricultural Extension and Rural Development, 5(2), 37-41.doi:10.5897/JAERD12.121.*

Miller, S., (2000). Core communication: Skills and processes. Evergreen, Co: Interpersonal Communication Programs, Inc.

Morse, J. M. (1991). Strategies for sampling. In J. M. Morse (Ed.), Qualitative nursing research: A contemporary dialogue (pp. 127-145). Newbury Park, CA: Sage.

Mushengyezi, A. (2003). Rethinking indigenous media: rituals, „talking" drums and orality as forms of public communication in Uganda. *Journal of African Cultural Studies,* 16(1), 107-117.

National Population Council (2011). Ghana Population Stabilization Report. Accra: National Population Council.

Ngomane T (2003) The evolution of extension processes and practices in relation to smallholder farming in southern Africa. "New Directions for a Diverse Planet". *Proceedings of the 4th International Crop Science Congress*, 26 Sep – 1 Oct 2003, Brisbane, Australia.

Nukunya, G.K. (2003). Tradition and Change in Ghana: An Introduction to Sociology. Accra: Ghana Universities Press.

Oladeji A., Van Crowder L. & Bernardi M. (2011). Communicating agro meteorological information to farming communities. *Agricultural and Forest Meteorology.* 103: 185–196

Ommani, AR. Chizari M, Salmanzadeh C, & Hosseini, JF (2008). Extension methods and organizational characteristics for supporting sustainable water resource management in agriculture of Iran. J. Appl. Sci. (in press).

Patton M.Q. (2002). *Qualitative Evaluation and Research Methods*. SAGE Publications, Newbury Park, CA.

Rivera, W. M., & Qamar, M. K. (2003). Agricultural extension, rural development and the food security challenge. Rome: Food and Agriculture Organization of the United Nations.

Razaque, P., Birthal, P. S., & Kumar, B. G. (2012). Strengthening pluralistic agricultural information delivery systems in India. *Agricultural Economics Research Review*. 22(1): 71-79.

Reddy, O. J (2001). Agricultural information needs and accessibility: A case study of Apa Local Government Area of Benue State, Nigeria, *African Journal of Agricultural Research*, 4: 1404 – 1409

Rogers, E. M. (2003). Diffusion of innovations (5thed.). New York: Free Press.

Sahin, I. (2006). Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory. *The Turkish Online Journal of Educational Technology*, 5(2).

Sasson, A. (2012). Food security for Africa: an urgent global challenge. Agriculture & Food Security, 1(2), 1-16.

Senah, B. (1997). Diffusing Scientist Knowledge to Innovative Experts. Journal of Science Communication 12 (01).

Servaes, J. (2002). Approaches to Development. Paris: UNESCO.

Silverman, C, (2005). Researching Audiences. Oxford University Press Inc., New York.

Tadesse, D. (2008). Access and utilization of agricultural information by resettler farming households: The case of Metema Woreda, North Gondar, Ethiopa.

Tietaah, G. K.M. (2013). In whose public interest? A development communication audit of broadcast pluralism in Ghana. (Unpublished doctoral thesis). University of Ghana, legon.

Tashakkori, S. & Teddie, B. (1998). Diffusing Scientist Knowledge to Innovative Experts.

Journal of Science Communication 12 (01).Retrieved on 18 June, 2018 from http://jcom.sissa,it.

Tashakkori, S. & Teddie, B. (2003). Diffusing Scientist Knowledge to Innovative Experts. *Journal of Science Communication* 12 (01).Retrieved on 18 June, 2018 from http://jcom.sissa,it.

Waisbord, S. (2001). *Family tree of theories, methodologies and strategies in development communication Prepared for The Rockefeller Foundation. Retrieved November 21, 2012, from http://change.comminit.com/pdf/familytree.pdf*

Wellard, K., Rafanomezana, J., Nyirenda, M., Okotel, M., & Subbey, V. (2013). A review of community extension approaches to innovation for improved livelihoods in Ghana, Uganda and Malawi. *The Journal of Agricultural Education and Extension*, 19(1), 21-35.

APPENDIX-SAMPLE QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF DISTANCE EDUCATION

RESEARCH QUESTIONNAIRE

The researcher is a student on a Master of Science (MSc) programme at the Kwame Nkrumah University of Science and Technology. He is conducting a study into '**ASSESSING THE EFFECTIVENESS OF RMG GHANA LIMITED INPUT DISTRIBUTION AMONG FARMERS IN GHANA**'. The researcher will be most grateful to you for answering the following research questions. Absolutely, all information provided will be used for academic purposes only. Time spent answering the questionnaire is highly appreciated. Also, your candid opinion is highly solicited. Thank you.

QUESTIONS FOR FARMERS

SECTION A: DEMOGRAPHICS

1. Sex: i) Male [ ]   ii) Female [ ]

2. Age: i) Less than 19years [ ]   ii) 20-29years [ ]   iii) 30-39years [ ]

iv) 40-49years [ ]   v) 50-59years [ ]   vi) 60yrs and above [ ]

3. Marital status: i) Married [ ]   ii) Single [ ]   iii) Separated [ ]

iv) Divorced [ ]   v) Widowed [ ]

4. Highest level of education:

    i) SSSCE/WASSCE/Technical Certificate [ ]   ii) HND   [ ]   iii) Degree [ ]

       iv) Master's Degree [ ]   others, Specify: …………….

SECTION B: INPUT DISTRIBUTION STRATEGY

7. What do you know about RMG Input distributions?

    I) They provide seed and fertilizer [ ]

    ii) They help vulnerable People or farmers [ ] iii) Do not know anything [ ]

    iv) Other, Specify ………………………

8. Are you a beneficiary of RMG Input distribution programmes? i) Yes [ ]   ii) No [ ]

9. How long have you been engaged with RMG Input distributions?

   I) 1 year [ ]   ii) 2 years [ ] iii) 3 years and above [ ]

10. What kind of assistance have you been receiving from the programme?

  i) Fertilizer (both top & down dressing) [ ]   ii) Seed [ ]   iii) Fertilizer and Seed [ ]

  iv) Agro chemicals [ ]   v) Other,(specify)…………………

11. In your opinion, how would you rate the assistance you have been receiving from the programme? i) Excellent [ ] ii) Very good [ ]   iii) Good [ ] iv) Poor [ ]

  v) Very poor [ ]   vi) Other, (specify)…………………

12. What do you think should be done by RMG to improve the programme?

  i} Increase the subsidy packs [ ]   ii) Give more information on subsidized inputs [ ]

  iii) Give more information on farming methods [ ] iv}Other, (specify)………………

13. How can the Input distribution of RMG be strengthened or improved?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

………………………………………………

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF DISTANCE EDUCATION

INTERVIEW GUIDE

The researcher is a student on a Master of Science (MSc) programme at the Kwame Nkrumah University of Science and Technology. He is conducting a study into '**ASSESSING THE EFFECTIVENESS OF RMG GHANA LIMITED INPUT DISTRIBUTION AMONG FARMERS IN GHANA**'. The researcher will be most grateful to you for answering the following research questions. Absolutely, all information provided will be used for academic purposes only. Time spent answering the questionnaire is highly appreciated. Also, your candid opinion is highly solicited. Thank you.

QUESTIONS FOR RMG OFFICERS

First I would like to learn about your role in the Implementation of RMG Input distribution.

1. For how long have you been involved with RMG?

2. What are the merits and demerits of the RMG Input distribution programme?

3. What selection criteria are used in selecting eligible farmers to be placed on the Program?(Probe: if gender is a priority)

4. Do you have strategies in the distribution of input put in place?(Probe: for message, audience, channel, source of the strategy)

5. Are they working?

6. What distribution strategies have been put in place by RMG in order to improve the provision of subsidized farming inputs?

7. What kind of Information is given to the potential beneficiaries of Input distribution? (Probe: source, message, audience, channel)

8. How is information on RMG programmes passed on to the potential beneficiary farmers? (Probe: Newspapers, meetings, radio, television, interpersonal etc.)

10. How effective and efficient are the Input distribution strategies used by RMG?

12. In your opinion what are some of the challenges faced in with RMG Input distribution?