STAFF PERCEPTIONS TOWARDS SELECTED FACTORS IN THE DELIVERY OF AGRICULTURAL EXTENSION SERVICES BEFORE AND UNDER DEVOLUTION IN KERICHO, KENYA

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A Thesis Submitted to Graduate School in Partial Fulfilment of the Requirements for the Master of Science Degree in Community Studies and Extension of Egerton University

EGERTON UNIVERSITY

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DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented in this university or any other for the award of a degree.



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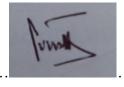
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DEDICATION

I dedicate this thesis to my lovely husband, Joseph K. Chelule, for his immense support. I also dedicate it to my children, Dr. Ezra Mitei, Joash, Faith, Idah, and Abigail.

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ABSTRACT

Devolution of agricultural extension services have been tried in many nations with mixed results. In Kenya, devolution started under the promulgation of the constitution in 2010. The agriculture sector was among the sectors that were devolved to the county governments to take services closer to the people. Since the implementation of the devolved system of governance in Kenya, its effect on agricultural extension service delivery, in Kericho (latitude 0° 22' 0.00" N and longitude 35° 17' 60.00" E) has not been studied. The purpose of this study, therefore, was to determine the perception of agricultural extension staff towards selected factors in Kericho county before and under devolution in Kenya. The objectives of the study were to determine the perceptions of agricultural extension officers towards the effect of devolution on financial support, human resource development and implementation of agricultural extension service before and under devolution of the agricultural sector. This study was guided by Soufflé Theory. The study adopted a descriptive research design, which is used to describe characteristics of a population or phenomenon being studied. The target population comprised of 117 agricultural extension officers in Kericho County. The study used a purposive sampling method. Data were collected using a questionnaire. To ascertain the validity of the instruments, a panel of experts in the field of agricultural extension were consulted. A pilot study was conducted using a sample of 10 extension staff from the neighbouring Bomet County to help estimate the reliability of the instrument. The data collected were analysed using descriptive statistics. The results show that 86% of the respondents were either positive or very positive towards financial transparency before devolution as opposed to the only 4.3% under devolution. Results show that the majority of the respondents (61.3%) were positive that the recruitment of relevant, and qualified extension staff, in a timely manner was seen before devolution. The results show that 64.6% of the respondents reacted positively and guidance and supervision of staff was undertaken regularly during programme implementation before devolution. The study concluded that there is a difference of staff perception towards financial support, human resource development and implementation of agricultural extension services in Kericho before and under devolution. The study recommends that diverse agricultural extension organizations, including government extension, should improve their financial commitment to promote

collaboration among extension service providers. County governments should provide regular training and re-tooling to their agriculture department workers.

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LIST OF ABBREVIATIONS AND ACRONYMS

GOK	- Government of Kenya
ICJ	- International Commission of Jurists
ICT	- Information and Communication Technologies
LGDP	- Local Government Development Programme
LGs	- Local Governments
M&E	-Monitoring and Evaluation
MOA	- Ministry of Agriculture
NASEP	- National Agricultural Sector Extension Policy
OED	- Operations Evaluation Department
SELN	- State Extension Leaders Network
UN	- United Nations

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the institutional fields that fosters the flow of knowledge that may be transformed into meaningful information is agricultural extension. A framework for message conveyance called agricultural extension has a role to play in the growth of agriculture. It serves as a resource for direction and aids farmers in improving their marketing and output (Evans, 2014). Agricultural extension also provides a means of identifying farmer concerns for study and modifying agricultural practices for the benefit of communities (Muhumed & Minja, 2019). Governments implement agricultural extension services to enhance rural development in several countries (Danso-Abbeam et al., 2018). Scientific knowledge and research are applied to agricultural practices via farmer education through agricultural extension. The dissemination of knowledge to farmers may be summed up as agricultural extension (Anderson & Gershon, 2007). To help farmers increase their output, extension services play a crucial role.

Many nations have decentralized their agricultural extension programs. The primary justification for the change is that devolved, often called devolution, transfers decision-making power to lower administrative and political levels. Due to their proximity to the public, these lower-level entities need to be able to actively include the public in the planning and execution of programs. Although the idea is solid, there have been several obstacles to its effective implementation in developing nations. For instance, central governments have resisted ceding authority of decision-making, particularly in the financial sector, while devolved units have shown a relatively low level of capability in carrying out delegated functions (Farooq et al., 2007). Devolution is the legally mandated transfer of authority from a sovereign state's central government to a subnational level, such as a regional or municipal level. This kind of administrative devolution is used (Amutavy, 2018). Devolved areas are given a greater degree of autonomy since they have the authority to enact localized laws. Devolution is protected because it increases service delivery productivity, transparency, and accountability, particularly to the public's most

marginalized groups, when combined with enough financial and professional resources (Gadenne & Singhal, 2014).

With a new system of governance, extension is changing, and agricultural extension workers' duties and perceptions are changing as well. Devolution officers' views and opinions may have an impact on how they approach their job and conduct themselves (Davis et al., 2019). The perspective of stakeholders toward decentralized agricultural extension may be mapped out using the agricultural extension officers' experiences and observations, both good and negative. The attitudes and perceptions of agricultural extension officers regarding the governance structure and policies put in place affect the efficacy of the agricultural extension services offered (Yadav et al., 2013).

There are, however, few studies that concentrate on agricultural extension officers' perceptions of a devolved form of government. In a devolved form of administration, it is critical to comprehend how extension agents for agriculture are seen. In a 2019 research, Davis et al. investigated how South African extension officers saw their work, held beliefs about the goals of extension, and had ideas about agriculture. The perceptions and responses to trust between colleagues and between employees and management were also studied by Ladebo (2006). The aspects of management-affective, coworkers-affective, management-cognitive, and coworkers-cognitive are all present in the views of trust. The educational requirements of extension agents in Iran's Khorasan Province with reference to sustainable agriculture were evaluated in different research (Chizari et al., 1999). This research concluded that perceptions of agricultural extension officers are crucial to all facets of providing services to farmers. It is crucial to regularly assess how agricultural extension officers feel about such changes due to the worldwide dynamic changes in structures and policies.

According to studies on the devolution of agricultural extension, staff members' perceptions of the impact of the devolution on the delivery of services to the underprivileged were varied. Devolution in India is focused on the absence of stable circumstances such a political sense of duty about power control, mobilizing resources for the poor, the accountability of elected officials, and enough resources (Reddy, 2013). However, these groups do not oppose the devolution of administration in and of itself;

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rather, they focus on the devolution process to improve service delivery to those who are socially disadvantaged (Muriu, 2013). In several nations, including the United States, Pakistan, and India, devolution has gained popularity. The move's primary premise is that devolved administration moves basic leadership expertise to lower authoritative and political level entities to develop and carry out reform initiatives with the active participation of members (Hu et al., 2012). The concept is good, but for various reasons it has not been easily implemented in underdeveloped countries up to this point. For instance, some central governments are loath to relinquish control over fundamental leadership, especially in financial concerns, which has an impact on the delivery of agricultural extension programs (Faguet, 2014).

With the change in political power in Pakistan in 1999, the government instituted a new system known as the Devolution of Power Plan, an advanced form of devolution, with the goal of enhancing local government's capabilities and giving elected officials more power and responsibility at the local level. By comparing the pre- and post-devolutionary eras of the agricultural extension system in central Punjab, Abbas et al. (2006) assessed the impact of devolution of powers and concluded that the post-devolutionary regime saw an increase in input availability. The research did not allow for any conclusions to be reached about the impact of the devolution of the agricultural extension system on extension practices, but it does highlight the necessity for another study in a different location to verify this assertion. In a similar vein, Abbas, Sheikh, and Mahmood concluded that if improvements were made to the devolution framework, a devolved system would be preferable than a centralised one. However, this conclusion might hold true or incorrect in Kericho County.

According to Cidro (2015), highland farmers in the Philippines are more likely than the other farming sectors to get less attention from a decentralized agricultural extension program. This suggests that a region's or industry's agricultural sector may have a different impact on how devolution works. Insufficient money, inadequate pay for extension workers, and political meddling are only a few of the downsides of devolving extension that Cidro cited as contributing to the degradation of the service provided to

farmers. However, one benefit of decentralizing agricultural extension is the simplicity with which extension services may be managed.

Lencucha et al. (2020) assert that a deficient system of governance has caused farmers to lose access to free agricultural extension services. It is said that owing to system flaws, farmers have difficulties creating and maintaining the connections required to participate in processes of demand-driven innovation (Klerkx & Leeuwis, 2008). Devolution changes in nations like China, according to Hu et al. (2012), has led to government extension agents offering farmers additional extension services. Additionally, investigations on the devolution reform in China's township extension system found that the change had led to government extension agents spending an excessive amount of time on administrative matters rather than service distribution.

As a result of shifting financial needs for agricultural extension, devolution policies were established in various countries (Cheema & Rondinelli, 2007). One of the things that prevents farmers from having access to extension services is often described as a lack of financial assistance. To guarantee that agricultural extension officers have the necessary logistics for field operations, monies must be available to meet administrative, recurring, and capital expenses of extension organizations (Okorley, 2007). "Devolved government bodies may design new strategies to ensure the financial viability of its departments" under devolved systems, according to Zalengera et al. (2019). Okorley (2007) stated that pre-auditing and post-expenditure auditing processes are examples of corruption-avoiding tactics that cause delays in program execution in decentralized systems.

Rivera and Alex (2008) underlined the significance of human resource development in agricultural and rural development; as a result, numerous agricultural techniques have taken human resource development into consideration. Zamani-Miandashti and Malek-Mohammad (2012) claim that systematic agricultural Human Resource Development (HRD) interventions are seldom used in poor nations and that there is little information on their effectiveness in a decentralised system. To determine the efficacy of three multiproject HRD interventions in Iran, Zamani-Miandashti and Malek-Mohammad (2012) conducted a comparative analysis. The study's conclusion about the effectiveness of agricultural HRD interventions was that they were successful in accomplishing their

short-term goals, which included getting people to respond favorably to the programs and giving farmers more knowledge about themselves.

A vast field crew that is distributed around the nation in accordance with the governmental structure and is overseen by the center implements agricultural extension. A stringent schedule of field staff training sessions, visits to farmers, and daily and weekly activities are all used to ensure effective implementation. Increases in production of the specific crops covered by the program are used to gauge success. The adoption of various thrusts and standards for agricultural productivity, according to Birch (2018), has occurred as a consequence of the devolution of agricultural extension and on-site research activities to local governments owing to a lack of funding and a variety of demands. The execution of agricultural policies and initiatives as a consequence has been uneven and disjointed.

Since the British Colonial administration was established in Kenya, agricultural extension services have existed to provide advice to farmers and increase agricultural productivity in order to solve difficulties with food security. A number of possibilities and challenges for agricultural services at all levels of dispensation were presented by the passage of Kenya's new Constitution in 2010, which resulted in significant realignments of the institutional landscape in government. A number of duties were transferred to county governments, including those relating to agriculture. The county government now oversees the formative activities, particularly the provision of agricultural services (Mwenda, 2010). In order to improve the capabilities of county governments, devolution was implemented in Kenya in 2010.

Over 80% of family income in Kericho County comes from agriculture, which also provides jobs for more than 50% of the county's population. County Department of Agriculture, Livestock and Fisheries in particular provides extension services in Kericho County (DALF). The county was given the responsibility for providing agricultural services, but Kericho County has not looked into how this has affected service delivery.

1.2 Statement of the Problem

Despite the devolution of agricultural functions to the county government in order to bring extension services closer to the farmers, there has been challenges in the delivery of these agricultural extension services. If this problem is not addressed urgently, there will be high level of food insecurity and decline in economy. The reason for challenges in the delivery of agricultural extension services is not well understood and could be attributed to variables such as financial support, human resource development and implementation among others. Agricultural extension staff play a significant role in the delivery of extension services. Their perceptions towards the selected factors in the delivery of extension services before and under devolution will help us understand how the introduction of devolution has influenced the delivery of extension services in Kericho, Kenya. Previous studies on devolution have focused on the perception of farmers. This study, therefore, generated empirical data for the purpose of documentation and dissemination.

1.3. Objectives

The study was guided by the following objectives:

1.3.1 General Objective

The general objective of the study was to determine the perception of agricultural extension staff towards selected factors attributed to the delivery of agricultural extension services before and under devolution in Kericho, Kenya.

1.3.1 Specific Objective

The following specific objectives guided the study:

- i. To describe the perceptions of agricultural staff towards financial support before and under devolution in agricultural extension in Kericho County
- To describe the perceptions of agricultural staff towards the human resource development before and under devolution of agricultural extension service delivery in Kericho County
- iii. To describe the perceptions of staff towards the implementation of agricultural extension activities before and under devolution in Kericho County

1.5. Research Questions

The study sought to address the following research questions:

- i. What are the agricultural extension staff perceptions towards the financial support before and under devolution of agricultural extension services in Kericho County?
- ii. What are the agricultural extension staff perceptions towards the human resource development before and under devolution of agricultural extension services in Kericho County?
- iii. What are agricultural extension staff perceptions towards the implementation of agricultural extension activities before and under devolution of agricultural extension services in Kericho County?

1.6 Significance of the Study

This study has policy implications in that the call for an agricultural extension has existed for several decades, but the introduction of devolution in Kenya brought a new structure of governance (Constitution of Kenya, 2010). The findings of the study offers important insight to the county governments and national government in understanding issues associated with financial support, human resource development and the implementation of agricultural extension services as perceived by the extension officers. The study also adds to the literature on agricultural extension services in a devolved system of government in planning for agricultural improvements and in the development of financial policies that can improve the delivery of agricultural extension services. This study will advance community studies by helping agricultural policy makers to formulate policies that will ensure the delivery of agricultural extension services are done effectively to ensure an increase in farmer's income and food security for communities. This will ensure the well-being and healthy living of communities affected.

1.7 Scope of the Study

The study was conducted among agricultural extension staff in Kericho County. The study variables focused on factors important in the delivery agricultural extension service that is financial support, human resource development, and implementation of agricultural extension services. The study also focused mainly on the perceptions of agricultural extension staff towards selected factors before and under devolution. The periods of interest in the study were in the devolved system of government and under the

centralised system. For the purpose of this study, before devolution included a period between 2006 and 2012 and, under devolution included a period between 2014 and 2020.

1.8 Assumptions of the Study

The following assumptions were made during the study.

- i) It was assumed that extension staff responses were truthful and honest.
- ii) It was also assumed that the extension staff had clear understanding of devolution of agricultural functions.

1.9 Limitations of the Study

The following limitations were encountered in this study:

- i. Since the study purposefully chose Kericho County, the results of the study will need to be generalised to the other counties with caution.
- ii. Covid-19 pandemic measures presented a challenge which influenced data collection. To mitigate this issue, questionnaires were sent to emails of the participants. In addition, questionnaires administered physically were sanitized before and under administering to avoid the spread of Covid-19.

1.10 Definition of Terms

The following terms will be operationalised as follows:

Agricultural Extension: it is the application of scientific knowledge and agricultural research practices through the education of farmers. It is the delivery of information to farmers (Anderson & Gershon, 2007). In this study, it will be used to mean agricultural extension practices such as farm visits, demonstrations, field days, agricultural shows.

Agricultural Extension Service Delivery: The process of taking agricultural extension activities to the farmers (Baumüller, 2016). In this study, it will be used to mean reaching out to farmers with information and skills through activities such as tours, demonstrations, shows and exhibitions.

Decentralization: The transfer of control of an activity or organization to several local offices or authorities rather than a single one (Oxford Dictionary). In this study, decentralization is linked to devolution in that some functions such as agricultural extensions were transferred to local county governments.

Devolution: It is the transfer or delegation of power to a lower level, especially by the central government. This is a form of administrative devolution. Devolution implies that the centre delegates certain tasks or duties to the outlying bits while the centre remains in overall control. The centre does the delegating, initiates, and directs (World Bank, 2016). In this study, it will be used to mean the transfer of the agriculture sector and related activities like funding, human resource development and implementation from the national government to the county governments.

Financial support: The processes of facilitating projects through the provision of money (World Bank, 2014). In this study, it will be used to mean the provision of money towards the delivery of agricultural extension service. Financial support will be measured by assessing the amount of money allocated for extension, disbursement of money when required, transparency, budgeting, and accountability in the financing of agricultural extension.

Governance: It is a specific system by which a political system is ruled. It is an act of governing. Governance is the process of decision-making and the process by which

decisions are implemented (United Nations, 2012). In this study, governance means overseeing and supervising the implementation of agricultural extension services.

Human Resources Development: It means training and development, career development, and organisation development as an organisation's investment in the learning of its people (Muhumed & Minja, 2019). In this study, it will be used to mean training and development provided by the County Government of Kericho to increase the knowledge, skills, education, and abilities of agricultural extension staff. To measure human resource development training received, knowledge and skills, frequency, scaling updating of skills and knowledge, further education, information sharing workshops, and seminars will be used as indicators.

Implementation: Implementation is the carrying out, execution, or practice of a plan, a method, or any design, idea, model, specification, standard or policy for doing something (Laudon & Laudon, 2010). Extension service is usually carried out through various methods such as field visits, field days, barazas, tours, demonstrations, shows and exhibitions. Implementation will be measured using Likert scale with focus on the scope of activities, schedule for extension services, risk management, guidance and supervision of staff, and collaboration.

Perception: the act or faculty of perceiving or apprehending by means of the senses or of the mind; cognition; understanding (Dictionary.com, n.d). In this study, perception means the way in which agricultural extension officers regard, understand, or interpret selected agricultural extension service factors.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the agriculture extension services and devolution guided by the objectives of the study. The theoretical and conceptual frameworks are also discussed.

2.2 Concept of Devolution in Kenya

In accordance with Article 6 of the Kenyan Constitution of 2010, which is detailed in the First Schedule, the Legislature and the Executive, two of the three branches of government, are devolved to the 47 Political and Administrative Counties. According to Part 1 of Section 29 of the Fourth Schedule and Part 2 of Section 1 of the Fourth Schedule of the Kenyan Constitution of 2010, one of the areas that was devolved was agriculture (Lumumba & Franceschi, 2014). The county administration has more control over a particular region or more constrained controls over a certain command when power is delegated from a central charge of administration to a local charge of the administration (O'Neil, 2015). The government gives autonomous components of county governments the power to make decisions and handle finances (Richards & Smith, 2015).

Power, resources, and representation should be distributed locally as the main goal of devolution. To this purpose, Parliament has passed a number of legislation that provide frameworks for the devolutionary goals' adoption and execution techniques. The foundations of devolution in Kenya include the primacy of the Constitution, the people's sovereignty, and the idea of public engagement. The devolution is no longer choice or discretionary since the Constitution is supreme. The supreme law has firmly established it, and both state and private institutions must abide by this fact (Cheeseman et al., 2016).

It has been widely debated that the idea of devolving responsibility for agricultural extension services might encourage the delivery of public services to those who are less fortunate (Faguet, 2014). Devolution supporters contend that it promotes more cohesion among local government workers who are closer to the people, allowing them to understand their preferences and aspirations and genuinely reflect them in planning for

future growth. Devolution of power with appropriate sway, financial resources, and efficiency in service delivery, particularly to the underprivileged and vulnerable parts of the population, are further reasons why it is supported (Muhumed & Minja, 2019). To reach the farmers and provide them the finest agricultural extension services, a protracted process of financing and execution is required under a centralized structure of government. Devolution, on the other hand, brings services closer to the farmers by including local governments in finance, the development of human resources, and the delivery of extension services. Devolution intends to provide agricultural extension to the lowest level of farmers, which will ultimately result in enhanced productivity (Farooq et al., 2007). Kenya is one of the nations that has tried with various delivery methods for agricultural extension with varying degrees of success.

Kenya's devolved system of government, which combined three prior levels of administration into one, is exceedingly ambitious. The demise of previous local governments, provincial governments, and national tasks performed at the local levels gave rise to the present counties. The historical cries of Kenyans for a fair sharing of national resources must be taken into consideration while analyzing devolution in Kenya. There was a period when it seemed that the national government had a biased system where certain parts of Kenya received more assistance from the government and development initiatives. In addition, Kenya's over 42 ethnic groupings and various climatic conditions, with parts of northern Kenya being desert and semi-arid and others being arable, among other political and economic realities, contributed to the clamor for devolution (World Bank, 2012).

Kenya is one of the emerging nations that depends heavily on agriculture. Despite this, the level of agricultural output is still low since the majority of farmers continue to use traditional farming methods, and just a small number use modern technology. Agricultural extension services have been recognized by the Kenyan government as a key component of their agriculture reform agenda. In the 2010 constitution, the role of agricultural extension was completely delegated. In contrast to the past, when extension services were centralized, the 2010 Constitution places control of all extension services within the devolved county government (Lumumba & Franceschi, 2014).

Following the passage of Kenya's 2010 constitution, a number of responsibilities were transferred to county governments in the country's agricultural and associated sectors. The developmental operations, particularly the provision of agricultural services, have been delegated to county government (Mwenda, 2010). Agricultural extension helps assure food security and reduces poverty. It transforms information into useful knowledge that aids in the growth of businesses by boosting productivity and generating cash. The agricultural extension not only transfers technology but also gives farmers who live distant from urban centers access to non-formal education and information services.

Masanyiwa et al. (2019) emphasized the significance of devolution in agricultural extension because it enables governments to be more accessible to the people they serve, encourages inclusion and straightforwardness in basic leadership, improves the efficiency of the delivery of goods and services, increases the use and reach of public assets, and increases social capital. The benefits of higher limits, better living circumstances, and better services under decentralized government were highlighted by Ali and Farah (2019). Ali and Farah emphasized that devolution is a methodology for improvement, and that it is anticipated to assist in achieving better service delivery, improve democratic investment of all partners, establish a local connection with the public, and embrace responsibility measures to ensure that the goals of devolution are met. Despite the apparent benefits of devolution, Yu and Gao (2013) noted that devolution aids in the process to evaluate and choose what is significant and how the different problems are handled.

Saito (2001) suggested that decentralization may promote more local royalty to regional identities than the national identity, notwithstanding the significant contributions it has made to the supply of agricultural extension services. Therefore, in multi-ethnic and multi-religious cultures, as in Kenya, this may support further autonomy from the central authority and possibly a geographical secession. This compromises the integrity of the country as a whole. Second, devolution may make local corruption worse, which would make accountability worse overall, especially when it comes to providing agricultural extension services. Since resources (capital, human, and even social) are few at the local

level in low-income nations, the enhanced efficiency and efficacy of public resources may not be realized. When these limited resources are focused at the national level, they may be used more efficiently. Devolution may thereby compromise equality between various communities. This argument influenced the decision to conduct the research to look at how devolution may affect agricultural extension services.

The provision of services in Kericho county altered as a result of changes in the governance structure from central to devolved administration. One of the responsibilities given to Kenya's county administrations is agriculture. Agricultural duties are complex and diverse, thus those operations associated with service provision and the provision of raw materials have devolved (Muhumed & Minja, 2019). According to Hu et al. (2012), county government now oversees formative activities, particularly service delivery related to agriculture. It is becoming more clear that transferring administrative responsibilities for agricultural input supply and extension services would make it easier for farmers to increase agricultural output (Norton & Alwang, 2020).

2.3 Agricultural Extension in Kenya

Through farmer education, agricultural extension is the application of scientific research and new information to agricultural operations. Educators from several disciplines, including as agriculture, agricultural marketing, health, and business studies, now organise a broader variety of communication and learning activities for rural communities as part of the area of extension. Agricultural extension lacks a consensusbased definition. According to Ismail et al. (2013), the primary objective of extension is to assist rural households in assisting themselves by applying science, whether physical or social, to farming, homemaking, and family and community life. It has been said that agricultural extension is a system of non-formal education for rural residents. An extension is a process that facilitates transformation in people, communities, and companies engaged in the primary industrial sector and natural resource management (Vanclay & Leach, 2011). In general, agricultural extension is the provision of informational inputs to farmers (Danso-Abbeam et al., 2018).

One of the institutional areas that promotes the transmission and transfer of information that may be transformed into usable knowledge is agricultural extension. Agricultural extension, which is essentially a message delivery system, contributes to agricultural development. It serves as a guide and assists farmers in improving their marketing and production procedures (Evans, 2014). Agricultural extension also provides a route for identifying farmer concerns for study and modification of agricultural systems for the benefit of communities (Muhumed & Minja, 2019). In any kind of agricultural extension service delivery, extension services and programmes are the principal policy tools used to increase agricultural production worldwide. In Pakistan, for example, the broadcast of information and transmission of knowledge to farmers are crucial for accelerating agricultural growth via the use of new technology, appropriate planning, facilitation of extension activities, and management to reach maximum potential (Baloch & Thapa, 2019). Due to reasons such as a lack of information necessary to boost productivity and insufficient or a lack of technical know-how at the farm level as a result of poor implementation of extension services, agricultural production in developing nations has declined or stagnated over the last few decades (Rezvi, 2018).

Bonye et al. (2012) suggested that extension offers agricultural communities with a source of knowledge on new technology that, when accepted, may increase productivity, incomes, and living standards. Extension service providers inform farm families about an innovation, function as a catalyst to accelerate adoption, and also manage change and strive to prevent certain system participants from abandoning the diffusion process (Alemu et al., 2016). Through extension services, the challenges of farmers are highlighted for future research and policy guidance. According to Swanson (2008), the role of extension service extends much beyond the simple transmission of technological know-how. This service helps farmers build their communities by enhancing their human and social capital, boosting their production and processing abilities, expanding their access to markets and trade, forming cooperatives and other producer groups, and guiding them toward more environmentally responsible methods of natural resource management.

The significance of agricultural extension to rural development is well recognised, especially in developing nations where the majority of the world's population resides. Agriculture is the main source of income, and access to information is often expensive (Valbuena et al., 2015). Since Kenya's independence in 1963, the government has mostly

sponsored agricultural extension services until the late 1980s. Throughout the 1990s, the traditional models of extension service delivery started to evolve towards ones that incorporated farmers in the design or prioritisation of these services. This reorientation of extension toward participatory processes was precipitated by the realisation that successful and sustainable extension programmes could only be realised with the more active engagement of the different end-users, particularly farmers.

The purpose of extension organisations is to assist farmers in maximising their agricultural productive potential. Janssen et al. (2020) suggested that farmers exchange technology or new farming methods, receive access to pertinent information from a range of information sources, analyse and interpret this knowledge for their own circumstances, and learn from one another's experiences. Kenya's devolution of agricultural extension services takes two primary forms. To begin, structural changes are being implemented to devolve government authority over extension services to other organisations, with the goal of increasing extension's accountability to and responsiveness to local governments. Second, there is the devolution of management programmes via participatory farmer programmes in which end-users accept increased responsibility for creating and sharing information (Swanson et al., 2008). This research will concentrate on the first devolution strategy.

Numerous agricultural distribution strategies and approaches have been attempted to provide farmers with agricultural knowledge from research institutes (Mubofu & Elia, 2017). Field days, mass media, information desks, farmer field schools, training and visit, demonstration, shared interest groups, and agricultural exhibits and exhibitions are among the strategies used. However, minimal success in terms of the number of farmers contacted and effective technology adoption has been achieved, which has been linked to a decline in the number of extension officers, an increase in the number of farmers, and insufficient infrastructure assistance (Dixon, 2010). Many extension systems in poor nations, such as Kenya, are hampered by diminishing human and other supporting resources.

2.4 Perception towards financial support on agricultural extension services

Aboagye (2015) conducted research on the ways in which agricultural extension in Ghana is supported financially. According to the research, although though the Agriculture Department (DOA) is a decentralised agency, it nonetheless receives most of its funding from the federal government. Although these payments are scheduled to be made at the beginning of each calendar quarter since 2012, the analysis discovered that they have not been made. Research by Mogues and Omusu-Baah (2014) in Ghana's Ga West Municipal Assembly and Shai-Osodoku District Assembly yielded similar findings. According to the findings, money is not only provided late, but there are also other problems. They are not enough to meet the Department of Agriculture's projected expenditures. The incapacity of the federal government to provide enough funding for its many ministries and agencies has been blamed for fiscal inadequacies and delays (Mogues & Omusu-Baah, 2014).

According to Green (2008)'s research, agricultural extension services in Uganda are primarily reliant on subventions from Central Government. Since Uganda's progressive tax, which accounts for 80% of local income, was eliminated in 2005, local governments have become more reliant on financing from the central government. Green estimates that over 95% of local government income comes from central government transfers, which make up 30–37% of the national budget. Financial aid from the government is often used only for the intended purposes. There is room for just the smallest of wiggles, and even that is strictly regulated. The federal government often gives local governments money in three different ways. Most of the unrestricted grant money that municipalities can count on goes toward employee wages. All governments, even the federal ones, have to supplement their budgets with money they bring in themselves. Fjeldstad and Semboja (2000) state that the conditional grant is the primary financing mechanism for local government services in Tanzania, including agricultural extension activities.

Stakeholders believe that local government is more suited than the federal government to assess the requirements of its citizens and provide the necessary public services, as stated by Brewer et al. (2006), the authors of the devolution concept. Given this context, it is incumbent upon the county government to find and collect money from local sources in

the form of rates, tolls, property tax, fees, and penalties among others to strengthen the county's financial foundation for the advancement of the community. According to Brewer et al. (2006), the contribution of the source of financing to service delivery in the agriculture sector is an essential aspect of financial analysis. Devolving agricultural extension services cannot be maintained without a stable source of local financing. Revenue collection at the regional level is a cornerstone of decentralised, democratic government (Hambleton, 2017). There have been studies on agricultural service financing, but they have mostly focused on income and funding sources. This study is necessary since no research has been done in Kericho on the opinions of extension officers on financing both before and after devolution.

2.5 Perception towards Human Resource Development and the delivery of Agricultural Extension

In order to ascertain the Human Resource Development (HRD) activities in agricultural extension and advisory services in the public and commercial sector, a research was carried out by Lopokoiyit et al. (2012). A total of 440 agricultural extension agents from the public and commercial extension services were sampled for the research, which was conducted in 5 counties in Kenya. HRD initiatives emphasised formal and on-the-job training. According to the survey, agricultural extension agents believe that HRD initiatives demonstrate the providers' commitment to enhancing staff members' abilities to assist farmers with quality services. The necessity to satisfy the technical and managerial needs of a diverse and demand-driven extension service is also shown by the vast variety of formal and in-service courses taken.

In a 2017 research, Zikhali explored how agricultural staff development and training were perceived to affect agricultural output in Zimbabwe's decentralised system. The quantitative and qualitative methodologies complement each other's shortcomings, hence the research used a hybrid strategy. Results showed that some extension workers in the devolved system did not get training, and that for those who did, the instruction was insufficient. Zimbabwe's government underinvests in initiatives to strengthen its workforce and increase agricultural output. The poor productivity now being seen in the study region serves as proof that there is no real connection between training and actual

farming. According to Anderson (2008), an organisation that supports and enables those involved in agricultural production to acquire skills, knowledge, and technology to assure a beneficial influence on agricultural output.

Palani (2015) asserts that there is a direct correlation between training activities and community advantages. According to the report, training initiatives have improved the quality of the labour force, which has in turn aided in the expansion of the national economy. Due to this, economists created the phrase "human capital in people," which primarily refers to education and on-the-job training (Lopez et al., 2002). The involvement of the nation in forceful economic blocs is one of the possible advantages of staff development training activities. Palani (2015) noted that staff training has received significant recognition as a factor in the provision of agricultural extension services. Another major reason why extension services have not been able to reach a wide number of clients is the lack of extension staff, including extension educators, specialists, and agents (Ragasa et al., 2016). Therefore, the problem is a lack of allotted finances and financial assistance to hire additional employees. Ragasa et al. (2016) stated that despite the fact that extension organisations are hiring more professionals, financial constraints have prevented them from meeting their increased staffing needs.

On the effect of democratic decentralisation on the provision of services to the poor, several studies have found conflicting results (Johnson et al., 2005; Oommen, 2004). Most of the justifications offered for why devolution hasn't improved the quality of services, according to Johnson et al. (2005), centre on the local governments' inability to meet necessary requirements such having enough human resources and technical expertise. Though this evidence focuses mostly on the devolutionary process that strives to improve the delivery of services to socially disadvantaged populations, it is not opposed to the devolution of government per se (Oommen, 2004). According to Oommen, the development of these favourable circumstances is necessary for devolution to be effective since they will make it possible for local governments to supply agricultural services of high quality. No research has been conducted in Kericho County to look at extension officers' perspectives on HRD before and during devolution.

2.6 Perception towards the implementation of agricultural extension services

As Birch (2018) noted, agricultural extension workers have been left in the dark due to the uneven and fragmented implementation of agricultural policies and initiatives. Since local governments are now responsible for agricultural extension and on-site research services, many approaches and benchmarks have been used to boost agricultural output. When it comes to agricultural development projects, Birch observed that devolved systems fall short. It has been shown that one reason for poor agricultural productivity is the devolution of agricultural extension services to the local governments, which in turn impedes agricultural growth and food security.

Private agricultural extension in Nigeria was studied by Saliu and Age (2009). Farmers' involvement in programme development and execution is a popular extension strategy used by these non-government organisations. Poor implementation of agricultural extension services, as discovered in the study, may be improved with the use of a robust communication network and a long-term research programme. Furthermore, Komba et al. (2018) noted that while devolution gave local governments the responsibility for executing agricultural extension services, local officials are not engaged in the process of formulating agricultural planning and policy, which has been remained at the central level. As a consequence, local officials' implementation of agricultural extension services and programmes is often subpar under devolved government, according to this argument.

According to Hudson et al. (2019), a high degree of political and economic unpredictability makes it exceptionally challenging to carry out agricultural extension initiatives in the underdeveloped countries. As a result, we have to make snap judgments or engage in rudimentary, short-term planning. Lack of adequate planning and continuous evaluation is a major reason for the frequent failure of agricultural extension activities in the devolved system, as stated by Muatha (2014). This is because planners do not take into account the diversity embedded in most situations; different clientele groups are not systematically involved, and some are neglected; alternative solutions are not carefully compared; objectives are too rigid, not clearly defined, or not linked to activities; results are not properly evaluated. The difficulty, therefore, is clear in many cases: set aside extra time for preparation and review, and avoid behaving abruptly and robotically, without thought or consideration (Muatha, 2014).

Increased involvement of extension agents in the planning and execution of extension efforts is thought to foster a greater feeling of ownership and responsibility, as stated by Muatha (2014). In addition, the Kenyan government now prioritises devolving authority and promotes local involvement in planning agricultural techniques. If personnel in agricultural extension aren't actively encouraged to participate in planning, agricultural extension services may not be carried out to the best of their abilities. According to the papers we looked at, we know very little about how to get agricultural extension services up and running in Kericho County's new decentralised style of government. The purpose of this research is to fill up this informational void.

2.7 Theoretical Framework

2.7.1 Soufflé theory of decentralization

The Soufflé theory of decentralisation served as the study's direction. Parker (1995) put out the Soufflé theory of decentralisation, which claimed that there are three main components of decentralisation: administrative, fiscal, and political decentralisation. Decentralization, according to Parker (1995), is a multifaceted process that experiences both achievements and failures as it moves forward. According to the notion, it functions similarly to a soufflé, which must have the ideal proportions of milk, eggs, and heat to rise. As a result, a successful decentralisation programme must have the ideal ratio of political, financial, and institutional components to enhance rural development results. Parker asserts that as a result, decentralisation programmes will be susceptible to ongoing revision to account for shifting social, political, and economic factors. These factors may also be used in a decentralised form of government, like Kenya's, where roles and responsibilities have been distributed.

This theory may assist in understanding how these factors might relate to the provision of agricultural extension services in nations where agricultural activities have been delegated, such as Kenya. The Soufflé hypothesis makes an effort to integrate different aspects of decentralisation and connect them to intermediate results that are likely to affect the overall outcomes of agricultural extension. According to the Soufflé hypothesis, a variety of social, political, and institutional elements must coexist for decentralisation to be effective. The emphasis of this essay will be institutional-related elements like financing and human resource development.

With the passage of the Constitution, the Soufflé theory of decentralization's three powers (political, fiscal, and administrative) were immediately decentralised. The theory offers a thorough explanation of the decentralising financial, political, and administrative functions carried out by Kenyan county governments. Because it identifies and incorporates the institutional elements necessary for devolved systems to conduct agricultural extension services successfully, the Soufflé theory of decentralisation may be used to this research. The Soufflé theory of decentralisation is suitable for this study because it offers a thorough understanding of the impact of devolution aspects, in Kenya's context, such as financial support, human resource development, and implementation on the provision of extension services at the county level, particularly in Kericho County.

2.7.2 Principal-Agent Theory

One of the most popular frameworks for studying and analysing changes in public administration is the Principal-Agent or Agency Theory. Jensen and Meckling put out this notion (1976). According to this idea, a "principal" with goals and a "agent" charged with carrying out the necessary actions are proposed. The agency connection between principals and agents is the foundation of the principal-agent theory, and it is contingent on the distribution of authority and the availability of relevant information. The challenge then becomes how principals may ensure that the interests of their agents are aligned with the objectives they themselves set (Masanyiwa et al., 2012). This theory is relevant to the research at hand because it provides an explanation for the dynamic between organisations, such as those involved in a decentralised form of governance in which power is devolved from the federal to the county level.

Top-down and bottom-up models are connected to the agency theory of Mewes (2011). Top-down models have subnational governments acting as agents, discharging federal duties on their behalf (principal). Bottom-up models see people or recipients of government services as the ultimate principals, with elected officials serving as agents in the decision-making process. In turn, local political leaders and service recipients may rely on decentralised government administrators to carry out service delivery tasks. Agents of interest in this research were those who worked in agricultural extension. As a result, Kayode et al. (2013) argue that under a democratic democracy, the people who use government services are the ultimate principals.

However, detractors of the Agency-Theory model contend that it is unbalanced since it portrays an agent's actions as selfish. It doesn't take into account the importance of agent loyalty, pride, and professionalism in achieving key objectives (Kayode et al., 2013). Another issue with the agency theory is that it fails to account for principals' opportunistic actions. Because politicians and bureaucrats may enrich themselves via corrupt partnerships with commercial service providers, this is particularly true in the public sector (Kamara et al., 2012). In addition, Masanyiwa (2012) criticises the agencytheory model, referencing Batley (2004), for being too "one-dimensional" in its emphasis on the vertical link between the centre and the periphery. Because of this, analysing many principals and agents, particularly those at various administrative levels, may be challenging. Decentralized administration in Kenya benefits from Agency-explanation Theory's of the dynamic in which one party (the principle) distributes duties to another (the agent), who carries them out. There has been an increase in bad governance practises, such a lack of social responsibility, but little effort has been made to tackle the underlying principle agent issues. The Principal-Agent theory has become a popular framework for examining government transparency and responsibility-taking. Because it provides a malleable framework for modelling countless permutations in institutional arrangements, and in comparing their potential for inducing desirable behaviour by agents, it can be used to examine how a devolution system of governance has affected the outlook of agricultural extension officers towards certain aspects of the delivery of agricultural extension services (Gailmard, 2012).

2.8 Conceptual Framework

A conceptual framework is an analytical device with numerous variations and contexts, which is used to establish conceptual distinctions and consolidate ideas. A strong conceptual framework captures something real and does this in a manner that is easy to recollect and apply. This study primarily focuses on the funding, human resource development, and implementation of agricultural extension services before and under devolution in Kericho County, Kenya. The issue of devolution, however, does not only address the challenges and potentials of the agricultural extension, but as well, it must confront the necessary policy reform to make extension more effective. The study examined the perceptions of extension staff towards financial support, human resource development, and implementation. The link between the aspects to be studied is as shown in Figure 1. The independent variables are funding, human resource development, and implementation of agricultural extension services and the dependent variable is perception of agricultural extension staff. The devolution of agricultural functions is an intervening variable.

Independent Variables

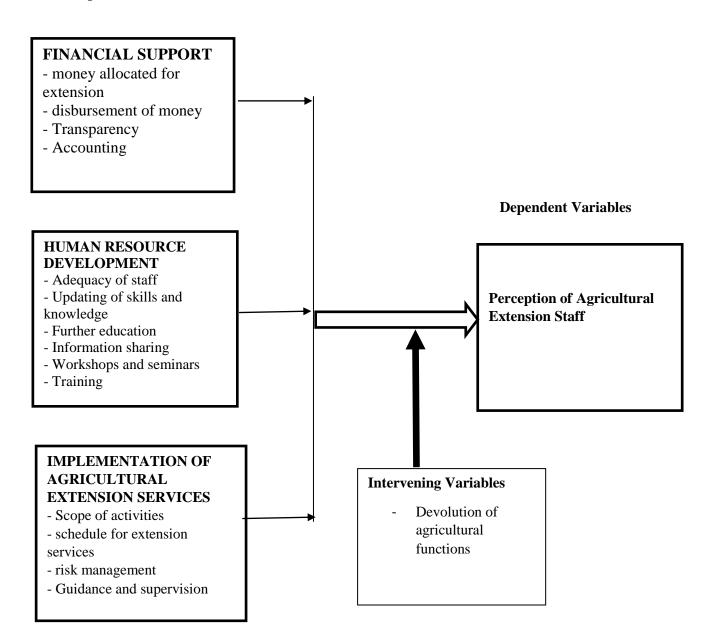


Figure 1: Conceptual framework of devolution and the perceptions of staff towards financial support, HRD, and implementation of agricultural extension services.

Devolution of agricultural extension services may have influence on financial support, which is expected to influence the delivery of agricultural extension services, which also changed the perception of agricultural extension staff in Kericho. Where there is accountability and transparency in the budgeting process, funding of agricultural activities in the County will yield positive results. Similarly, with the smooth flow of funding towards agricultural activities, farmers will receive extension service and thus improve their productivity. Devolution of agricultural extension services may affect human resource development which plays a significant role in the delivery of agricultural services. The HRD will be measured using updating of skills and knowledge, further education, information sharing, workshops and seminars, training as the indicators. Likewise, devolution of agricultural extension services may also influence implementation of agricultural extension services. In this case, timeliness, outcome evaluation, scope, execution, M&E, planning, schedule for extension programmes will be used as the indicators of implementation of agricultural extension services. Intervening variables such as government policies and climate change may also influence the outcome of the study. However, theses variables are beyond the control of the researcher.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology that wase used to carry out the research to provide answers to the research questions. The chapter covers the research design, area of study, target population, sample size and sampling procedure, validity and reliability of research instruments, data collection and analysis, and ethical considerations.

3.2 Research Design

A descriptive research approach was used for the study. A descriptive study seeks information that characterises existing occurrences. Descriptive research is a study that aims to accurately characterise the participants. Descriptive studies are designed to discover "what is," hence observational and survey methods are often employed to acquire descriptive data from individuals (Mugenda & Mugenda, 2003). Descriptive research is used to characterise the features of a population or phenomena under investigation. Data was gathered at a single moment in time. A survey study design is used to collect information on people's views, attitudes, and perceptions (Kathuri & Pals, 1993). The descriptive research approach was suited for this study because the researcher intended to correctly and systematically characterise, that is, evaluate variables that lead to poor agricultural extension service delivery in a decentralised government structure. Furthermore, like in this study, descriptive research design may use a broad range of research methodologies to analyse one or more variables. This design aims to gather data and statistically analyse it. It is a sophisticated study tool that allows a researcher to gather data and explain its demographics using statistical analysis (Siedlecki, 2020).

3.3 Area of Study

The study was conducted in Kericho County with a focus on assessing the effects of devolution on agricultural extension services. Kericho County is one of the counties in the Republic of Kenya. The County lies between longitude 35° 02' and 35° 40' East and between the equator and latitude 0° 23' South with an altitude of about 2002m above the sea level. It borders Uasin Gishu County to the North-West, Baringo County to the North,

Nandi County to the North-West, Nakuru County to the East and Bomet County to the South. It has a population of 901,777 of which 450,741 are males, 451,008 females and 28 intersex persons (2019 census) and an area of 2,111 km². Its headquarters and largest town in Kericho. The County has a temperature range of 10° C - 29° C and rainfall of 2,125mm p.a being highest in the central part of County where they plant tea and 1,400 mm p.a. in lower parts of Soin and parts of Kipkelion. The County has rainy seasons from April to June and October to December. There are 206,036 households with an average household size of 4.4 persons per household and a population density of 370 people per square kilometre (Munene, 2019). Kericho County is home to the best of Kenyan tea which is renowned worldwide for its taste with its town square even known as Chai Square. Some of the largest tea companies, including Unilever Kenya, James Finlay and Williamson Tea, are based here. It is also home to the popular Ketepa brand. This area is chosen for the study because agriculture is the main activity of the residents and can suitably represent other counties in the country in terms of agricultural extension service delivery.

3.4 Population of Study

A population is the collection of all observations under consideration. In research, the target population is the total collection of units for whom survey results will be utilised to draw conclusions. Thus, the target population denotes the units to whom the study's results are intended to be generalised. The agricultural extension employees in Kericho County were the study's target population. Kericho County has a total of 168 agricultural extension employees. Because devolution of agricultural duties is performed by county governments and may not have a substantial impact on private sector extension employees, this research focused only on public service extension workers. Table 1 shows the target population by Sub-County. Because census sampling was employed, the accessible population was the same as the target population.

Subcounty	Target Pop. N.		
Ainamoi	38		
Belgut	17		
Bureti	28		
Kipkelion East	21		
Kipkelion West	24		
Soin/Sigowet	21		
Total	168		

 Table 1: Target Population per Sub-County

3.5 Sample Size and Sampling Procedures

The study used purposive sampling method to select staff who served before devolution and under devolution. Because the target population was small, all staff that met the inclusion criteria were considered. The sample size consisted of 117 staff who served before devolution and were serving under devolution during the study period. The study focused on two different periods, before devolution (2006-2012) and under devolution (2014-2020), all individuals who served in both periods were included in this study.

Subcounty	Sample size per sub-county		
Ainamoi	29		
Belgut	13		
Bureti	23		
Kipkelion East	16		
Kipkelion West	19		
Soin/Sigowet	17		
Total	117		

Table 2: Sample Size

3.6 Instrumentation

A questionnaire for the extension workers was used to gather data (See Appendix I). The questionnaire was determined to be relevant for this research since a lot of data could be

gathered from a lot of participants quickly and reasonably affordably. To encourage responders to engage in meaningful involvement, the questionnaire's structure was reduced to a minimum. Open-ended and closed-ended questions were both employed in the questionnaire. A five-point Likert scale was used for measurement. As few words as possible were used in the questions, which were carefully worded and phrased. In any research where the responder is required to complete the survey, the rationale behind the questionnaire's look and format is crucial (Adams et al., 2007). The questions utilised were both closed- and open-ended. Sections A and B gathered data on the respondents' demographics, Section C collected data on the financing of extension services, Section D collected data on human resource development, and Section E collected data on the execution of extension programmes.

3.6.1 Validity of research instrument

Validity, as defined by Creswell (2009), is the degree to which a test really measures the constructs it claims to. Deductions are only as valid as the data they are based on, thus it's important to have good numbers. Is the phenomena being studied accurately reflected in the results of the analysis? According to Creswell (2009), the instrument's reliability is predicated on the honesty and openness of the responders. Testing the study instrument's face validity and content validity helped researchers figure out whether the tool really evaluated the desired characteristics. An indicator of a measuring strategy's face validity is how well it seems to measure the target concept. To what degree do the scale's items faithfully reflect or measure the construct under evaluation is what content validity examines. Supervisors and professors in the area of agricultural extension were contacted as experts in order to assess the instrument's content and face validity. Their suggestions were integrated into the final product.

3.6.2 Reliability of research instrument

Creswell (2009) defines reliability as the level of consistency of the research instruments. It yields consistent results over a number of repeated trials. A pilot test was done to assess the reliability and effectiveness of the research instrument. The pilot test technique of assessing the reliability of a research instrument was done by administering the same instrument to a sample of 10 agricultural extension staff from Bomet County. Bomet County was selected for pilot study because it shares common characteristics with Kericho County such as type of farming, climate condition, and farming culture. Agriculture extension officers also work under devolved government. According to Mugenda and Mugenda (2003), a pilot study with a sample of a tenth of the total sample with homogenous characteristics is appropriate for the pilot study. The reliability of the questionnaire was estimated to determine its consistency in testing what they are intended to measure. Cronbach Alpha Coefficient was used to calculate the reliability coefficient. A score of 0.787 reliability coefficient was obtained. This score was considered adequate as per Price *et al.* (2015).

3.7 Data Collection Procedure

The researcher first obtained an introductory letter from the Board of Postgraduate Studies, Egerton University. This letter was used to obtain a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI). The researcher then visited the County Commissioner, the County Director of Education, and the County Director of Agriculture to explain the purposes of the research and to obtain permission to undertake the research. The researcher then proceeded to make appointments with the extension staff with the help of the County Officer of Agriculture. The researcher left the questionnaire with each extension staff who was selected to participate in the study to complete them within for a period of one week. The researcher then collected filled questionnaires from the respondents.

3.8 Data Analysis

Data analysis is the transformation of the processed data to identify trends and relationship between different data groups using descriptive. Data processing included data clean-up and data reduction. During data clean-up, the collected data were edited to identify errors, omissions, and anomalies in reactions and checking that the questions are answered precisely and uniformly. The procedure of assigning numerical or different symbols followed, which was utilized to reduce responses into a predetermined number of classes.

The SPSS version 25 was used to analyse the data acquired from main sources. Particularly, descriptive statistics (Frequencies, percentages, mean, and standard deviations). Descriptive analysis was used to reduce the data into a summary format through tabulation and measure of central tendency (mean and standard deviation). The reason for utilizing descriptive statistics was to describe the variables.

Research Question		Variables		Statistical	
				Analysis	
	Independent	Dependent	Intervening		
	Variable	Variable	Variable		
What are the agricultural	financial	Perceptions of	Devolution	Descriptive	
extension staff perceptions	Support	agricultural		statistics	
towards the level of		extension staff			
financial support before					
and under devolution of					
agricultural extension					
services in Kericho					
County?					
What are the agricultural	Human	Perceptions of	Devolution	Descriptive	
extension staff perceptions	Resource	agricultural		statistics	
towards the level of human	Development	extension staff			
resource development					
before and under					
devolution of agricultural					
extension services in					
Kericho County?					
What are agricultural	implementation	Perceptions of	Devolution	Descriptive	
extension staff perceptions	of agricultural	agricultural		statistics	
towards the level of	extension	extension staff			
implementation of	services	towards			
agricultural extension					
activities before and under					
devolution of agricultural					
extension services in					
Kericho County?					

Table 3: Summary of Data Analysis Per Research Question

3.9 Ethical Considerations

Prior to the beginning of the study, a letter of introduction was obtained from the University which explained to the purpose of the study (See Appendix VII). The letter was also used to seek permission from the relevant authorities. Moreover, the respondents were assured that the information they provided were only going to be used for the purpose of the study, and all the information they provide will be treated with the utmost confidentiality. All identifiable data were removed, and anonymity and confidentiality maintained. The research findings were presented objectively and honestly. In addition, all *Covid-19* precautions were taken into consideration during data collection process.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This study aimed at determining agricultural extension staff perception towards selected factors in Kericho County before and under devolution in Kenya. This chapter presents the results of the results and discussion for the specific objectives of the study.

4.2 Response Rate

Response rate in percentage was calculated by dividing the number of usable responses returned by the total number eligible in the sample chosen and multiplying by 100. Out of 117 questionnaires dispatched to various respondents, ninety-three (93) were duly filled and returned, representing a response rate of 79.5%. Evaluation of response rate plays a critical role in research based on a study by Mugenda and Mugenda (2003) which established that 50% response rate was adequate, 60% was good, and a rate of 70% and above was excellent. In view of the assertion, the response rate for this study was deemed excellent for analysis.

4.3 Perception of staff towards financial support to agricultural extension services before and under devolution

The first objective of this study was to describe the perceptions of agricultural staff towards level of financial support before and under devolution in agricultural extension in Kericho County. Descriptive analysis of perception towards financial support to agricultural extension Services was conducted. Respondents were asked to indicate their perceptions towards different aspects of financial support to agricultural extension before and under devolution. The respondents were given a five-point Likert-scale as follows: (1= Very negative, 2= negative, 3=somehow positive, 4= positive and 5= very positive). The data were analysed using frequencies. The results are displayed in Appendix II, Table 5.

Skewness was used to measure the asymmetry of a distribution. The values obtained from skewness analysis was positive or negative. Negative skew indicated that the tail was on the left side of the distribution, and positive skew indicated that the tail was on the right

side of the distribution. The skewness of the transparency in financial matters was found to be -.853, indicating that the distribution was left-skewed. Similarly, kurtosis was used to measure of whether or not a distribution is heavy-tailed or light-tailed relative to a normal distribution. The kurtosis of the transparency in financial matters was found to be 1.031, indicating that the distribution was light-tailed compared to the normal distribution. However, because we were not conducting any inferential statistics, the nonnormality did not have any implication on the outcome of the analysis. In addition, the data collected was non-parametric and does not need to follow normal distribution for analysis.

Table 5 shows that a majority of the respondents, (86%) were either positive or very positive towards financial transparency before devolution as opposed to the only 4.3% under devolution. These results suggest that transparency in financial matters of extension services before devolution was far much better compared to before devolution. The findings show that 74.2% (51.6%+22.6%) of the respondents' perceptions, towards the participatory nature of the budget process before devolution, was positive and very positive. However, the majority (68.8% i.e., 33.3%+33.5%) of the respondents' perceptions towards the nature of the budget process, under devolution, was negative and very negative. This is a clear indication that the process of budgeting before devolution was participatory as opposed to the current state of devolution. Brewer et al. (2006) argued that the source of funding is an important part of financial analysis as it contributes to service delivery in the agricultural sector.

Further, results showed that 64.5% of the respondents (30.1%+34.4%) perceptions towards the money allocated to agricultural extension services was positive and very positive before devolution. However, 94.6% (57.0%+37.6%) of the respondents' perceptions towards the same variable was negative and very negative under devolution. This could imply that the budgetary allocation to agricultural extension, under devolution, has been insufficient. This agrees with Green (2008) who found that local governments in Uganda depend heavily on subventions from Central Government to finance agricultural extension services. Similarly, a study by Aboagye (2015) examined funding of agricultural extension in Ghana. The study found that although the

Department of Agriculture (DOA) is devolved, it relies on the central government to fund its activities.

The results also showed that 65.6% of the respondents' perceptions towards timely disbursement of funds for agricultural extension in the County before devolution, was either negative or very negative. This could be an indication that disbursement of money towards agricultural extension in the County was timely before devolution. Mogues and Omusu-Baah (2014) found similar results in a scoping study in the Ga West Municipal Assembly and the Shai-Osodoku District Assembly of Ghana. The study reported that not only are funds released late, but it also fall short of the budgeted funds of the DOA

Moreover, the results also revealed that a majority (66.6%) of the respondents' perceptions towards financial accountability, in Kericho County was positive and very positive before devolution. However, 58.2% (31.4+26.8) of the respondents' perceptions towards the same variable was negative and very negative under devolution. The findings suggests that financial accountability was better before devolution. The findings agree with Aslam et al. (2015) who investigated the impact of devolution on the agricultural extension system in Pakistan. The study found out that Agriculture Officers and Deputy District Officers (DDOs) are not involved in financial transactions, and that only the District Officer of Agriculture and District Officers deal with financial matters. Agriculture Extension budgets have been reduced by up to 25% to 30% in the wake of devolution, according to DDOs and district officers. They stated that prior to devolution, they had quarterly budgets, but now they receive monthly budgets, which causes challenges in utilizing funds in different heads and makes managing demonstration plots difficult. In response to a query about their opinions, all DDOs want to be involved in financial matters.

4.4 Perceptions of agricultural staff towards human resource development before and under devolution

The second objective of the study was to determine the perceptions of agricultural staff towards the level of human resource development before and under devolution of agricultural extension service delivery in Kericho County. Agricultural extension staff were requested to indicate their perception towards five aspects of the level of human resource development before and under devolution. The respondents were given a five point Likert-scale as follows: (1= Very negative, 2= negative, 3=somehow positive, 4= positive and 5= very positive). The data were analysed using frequencies and percentages. The results are displayed in Appendix II, Table 5.

The skewness of the recruitment of relevant, and qualified extension staff undertaken in a timely manner was found to be -.264, indicating that the distribution was left-skewed. Similarly, kurtosis was used to measure of whether or not a distribution is heavy-tailed or light-tailed relative to a normal distribution. The kurtosis of the recruitment of relevant, and qualified extension staff undertaken in a timely manner was found to be -0.826, indicating that the distribution was more peaked than normal. Table 5 show that the majority of the respondents, 61.3% (49.5% + 11.8%) perceptions towards the recruitment of relevant, and qualified extension staff, in a timely manner, was positive and very positive before devolution, while an overwhelming majority (78.5% i.e. 41.9%+36.6) of the respondents were negative and very negative towards the same variable under devolution. These results show that recruitment of relevant and qualified extension staff was carried out in a timely manner before the County Government was established.

The results indicate that 63.5% (44.1%+19.4%) of the respondents responded positively and very positively towards the statement ''that the number of agricultural extension staff in the County was adequate before devolution.'' However, the majority (76.4% i.e. 35.5%+40.9%) of the respondents' perceptions towards the same variable was negative and very negative. This is a clear indication that the number of agricultural extension staff in the County was fairly adequate before devolution as opposed to the current situation under devolution. The findings are convergent with those of Ragasa et al. (2016) who noted that the shortage of extension employees including extension educators, experts, and agents, is another main reason that extension services have not been able to reach many farmers.

Further, results in Table 6 (Appendix II) shows that 63.5% (44.1%+19.4%) of the respondents were positive and very positive towards the aspect that "there is regular skills and knowledge gap evaluation of agricultural extension staff in the County before devolution". Close this paragraph. On the other hand, a great majority (73.2% i.e. 40.9%

+32.3%) of the respondents perceptions towards the same variable was negative and very negative under devolution. This could imply that regular skills and knowledge gap evaluation of agricultural extension staff in the County, is inadequate under devolution. This agrees with a study by Zikhali (2017) that explored the perception of Agricultural staff training and development on agricultural productivity in devolved system of Zimbabwe. Findings revealed that, in devolved system, some extension workers were not receiving training, and those trained, training was inadequate. According to Palani (2015), there is a strong relationship between training activities and their benefits to the community.

The results in Table 6 also show that 58.0% (37.6%+20.4%) were positive and very positive towards the statement "that the staff were encouraged to undertake further training and education among before devolution as opposed to 34.4% who were somehow positive and 33.3 % who were negative. This could be an indication that the government encouraged further training and education among staff before devolution came into being.

Moreover, the results revealed that 60.2% (37.6% + 22.6%) of the respondents responded positively and positively towards the statement that "there is a clear-cut career progression and development for extension staff in the County" before devolution. Whereas a majority (50.5% i.e., 25.8% + 24.7%) were negative and very negative towards the same variable while 23.7% were somehow positive 25.8% were positive on under devolution. The findings suggest that career progression and development for extension staff was amicably resolved before devolution. Anderson (2008) asserts that agricultural extension implies an organisation which support and facilitate people engaged in agricultural production to obtain skills, information, and technologies to ensure a positive impact on agricultural productivity.

These outcomes suggest that human resource development before and under devolution of agricultural extension service delivery in Kericho County are different. Results of a study by Perry and Kulik (2008) suggest that line support and a devolution strategy may compensate for one another in ensuring effective people management. When an organization has truly devolved people management responsibility, access to internal support may be less important; managers who know they will be held responsible for people management will develop relevant skills and identify sources of material to help them. Research suggests that managers rely on a wide variety of educational sources outside their own HR department to develop people management skills (Kulik & Bainbridge, 2006). In a non-devolved organization, line managers may have little personal motivation to develop HR skills and their knowledge and skill sets may be limited as a result. Yet, even in a non-devolved organization, line managers are still actively involved in day-to-day people management with a bottom-line impact (Kulik & Bainbridge, 2006). It seems that in these environments, where the organization depends on line managers to execute HR policies without asking them to take full responsibility for people management.

In comparing centralised and decentralised human resource management within the context of the Tanzania health sector, Munga, et al. (2009) discovered in their study that the recruitment of highly qualified and skilled health workers under decentralised arrangement may be expensive and difficult. However, they perceived decentralised recruitment as being more effective in enhancing the retention of the lower cadre of health staff within the rural areas. In contrast, the centralised HRD was more effective both in engaging qualified health workers and balancing their spread/distribution across districts, but ineffective in ensuring the retention of health employees (Munga et al., 2009).

Respondents were requested to give general comments on the effect of devolution on human resource development before and under devolution. The data were summarized using frequencies and percentages. The results are displayed in Table 6 below.

Comments	Frequency	Percent	
		(%)	
Better job advancement under devolution	3	3.2	
HRD was more efficient before devolution than under devolution	4	4.3	
Few staff and less capacity building under devolution	3	3.2	
HRD given priority before devolution unlike under	2	2.2	
HRD not digitalized before and under devolution	4	4.3	
human resource development fair before devolution and poor under	7	7.5	
devolution			
HRD not good before devolution and worsened under devolution	2	2.2	
Human resource development became fairer under devolution than	2	2.2	
before devolution			
Human resource development was better before devolution than under	15	15.2	
devolution			
HRD was more organized before devolution than under devolution	3	3.2	
Improvement in human resource development under devolution	2	2.2	
Inadequate capacity building under devolution unlike before devolution	2	2.2	
No clear departmental mandate under devolution	2	2.2	
No clear policies on HRD under devolution	3	3.2	
Promotions are delayed under devolution	3	3.2	
Recruitment was better before devolution than under devolution	6	6.5	
Reduced number of trainings under devolution unlike before	1	1.1	
Staff not motivated under devolution	3	3.2	
Staff upgrading before devolution and non under devolution	3	3.2	
Succession management was better before devolution than under	8	8.6	
devolution			
Succession plan before devolution and non under	3	3.2	
Well-structured human resource development before devolution	3	3.2	
Missing comments	9	9.7	
Total	93	100.0	

Table 4: Comments on the effect of devolution on human resource development before and under devolution

Table 6 summarizes individual responses regarding the effect of devolution on human resource development before and under devolution. It is seen that human resource development was better off in place before devolution than under devolution, as remarked by majority of the respondents (15.2%). In agreements to the findings in this study, Kolehmainen-Aitken (1998) who argued that the key human resource domains problems arise as a result of the way in which decentralized management systems are structured. Kolehmainen-Aitken (1998) further noted that the viability of developing human resources in a coordinated manner may be in jeopardy because of deteriorating databases, reduced planning capacity, inequitable or inappropriate staff allocation, or decentralization-induced difficulties in career development. However, Perry and Kulik (2008) who found a positive effect of devolution on perceived people management effectiveness in the United States.

Daly (2007) found that regardless of the level of devolution there will be a need for a centralised resource to coordinate common tasks e.g. training, employee development, pay and benefits, succession planning etc. Without this there is a high risk of varied solutions to similar circumstances across the different sections of an organisation. He point out that devolution could be a threat to HR and may result in line managers taking over more and more responsibility for the role. According to Kolehmainen-Aitken (1998), decisions made at the time of decentralization about the responsibility for training and training institutions can have a very long-term impact on the availability of staff and their level of competence. Mistakes made in allocating responsibility over training can be costly.

4.5 Perceptions of agricultural staff towards the implementation of agricultural extension activities

The third objective of the study was to describe the perceptions of staff towards the implementation of agricultural extension activities before and under devolution in Kericho County. Respondents were asked to indicate their perceptions towards the level of implementation of agricultural extension activities. They were given a five-point Likert-scale as follows: (1= Very negative, 2= negative, 3=somehow positive, 4= positive and 5= very positive). The results are shown in Appendix II, Table 7.

The skewness of the extension activities being undertaken as planned was found to be -1.014, indicating that the distribution was left-skewed. Similarly, kurtosis was used to measure of whether or not a distribution is heavy-tailed or light-tailed relative to a normal distribution. The kurtosis of the recruitment of relevant, and qualified extension staff undertaken in a timely manner was found to be 0.786, indicating a shape flatter than normal.

Table 7 shows that majority of the respondents, 62.3% (37.6%+24.7%) were positive and very positive towards the statement that 'resource mobilization before programme implementation was carried out effectively' Under devolution However, 59.1% (38.7%+ 20.4%) 17.2% (14.0%+3.2%) responded negatively and very negatively towards the same variable. These results suggest that resource mobilization was carried out more effectively before devolution and less effectively under devolution. Birch (2018) reported inconsistent and fragmented implementation of agricultural policies and programs that has consequently caused confusion among agricultural extension workers in devolved system.

The results show that 64.6% (36.6%+28.0%) of the respondents reacted positively and very positively to the statement that "guidance and supervision of staff is undertaken regularly during programme implementation" before devolution. However, 59.1% (38.7 %+20.4%) of the respondents reacted negatively and very negatively to the same statement under devolution. This is an indication that guidance and supervision of staff was carried out more regularly, during programme implementation before devolution as compared to under devolution. This finding concurs with Muatha (2014) who noted that lack of adequate planning and continual evaluation is a major reason for the frequent failure of agricultural extension activities in the devolved system: planners do not look at the diversity embedded in most situations

Further results in Table 7 shows that majority of the respondents, 85% (45.2%+39.8%) responded positively and very positively towards the aspect that the extension activities are undertaken as planned before devolution. On the other hand, 50.6% (28.0%+22.6%) responded negatively and very negatively towards the same aspect. This could imply that extension activities were carried out as planned before devolution as compared to under devolution. Hudson et al. (2019) noted that the implementation of agricultural extension programs is a

difficult mission, especially in the developing world, where the level of political and economic uncertainty is high.

Table 7 reveals that majority, 74.2% (57.0%+17.2%) of the respondents were positive and very positive towards the statement ''that fiscal management and financial accountability were practiced before devolution'' as opposed to a majority, 50.6% (28.0%+22.6%) of the respondents who responded negatively and very negatively towards the same statement under devolution. A small majority (31.2%) were somehow positive towards the same statement. This is an indication that fiscal management, and financial accountability were undertaken effectively, to some extent before the county government came into existence as opposed to under.

Table 7 also shows that 74.2% (62.4%+11.8%) of the respondents responded positively and very positively towards the statement that'' Risk management (provision of a safe working environment) are adhered to before devolution as opposed to 64.6% who responded negatively and very negatively towards the same statement. This suggests that risk management was part of planning before devolution as opposed to under devolution where it is part of planning to some extent. Komba et al. (2018) noted that local officials are not involved in the agricultural planning and policy formulation process, which has been retained at the central level, often resulting in poor implementation of agricultural extension service and programs in devolved government

Table 7 also reveals that 60.3% (36.6%+23.7%) of the respondents reacted positively and very positively to the statement that" marketing of extension programme to the stakeholders was done before devolution". However, 66.6% (37.6%+29.0%) reacted negatively and very negatively towards the same statement. This is an indication that marketing of extension programme to the stakeholders was mostly done before devolution as compared to under. The findings also show that 72% (41.9%+30.1%) of the respondents reacted positively and very positively to the statement that collaboration was emphasized before devolution, whereas 37.6% responded moderately (somehow) positive to the same statement under devolution. A smaller majority, 30.2% (10.8%+19.4%) responded negatively and very negatively to the same statement under devolution. These results suggest that working with other agencies, organizations and groups was mostly emphasized before devolution and to a lesser extent under devolution. This is supported by Saliu and Age (2009) who found that the delivery of agricultural extension is

inefficient due to poor implementation that can be enhanced under a well-developed communication network and sustainable research programme.

Further results in Table 7, revealed that majority of the respondents, 88.2% (55.9%+32.3%) responded positively and very positively to the aspect that agricultural extension services were subjected to M&E before devolution. However, a small majority, 46.3% (28.0%+18.3%) reacted negatively and very negatively to the same aspect under devolution. Yet, a smaller majority, 26.9% reacted somehow-positive to the same aspect under devolution. This implies that agricultural extension services were subjected to M&E parameters more before devolution and slightly less under devolution. Muatha (2014) argued that the rationale is that increasing the participation of extension agents in the planning and implementation of extension activities will lead to a stronger sense of ownership and responsibility.

The findings agree with those of Komba et al. (2018) found that while devolution transferred the task of implementing agricultural extension services to the local governments, local officials are not involved in the agricultural planning and policy formulation process, which has been retained at the central level, often resulting in poor implementation of agricultural extension service and programs in devolved government. Similarly, Muatha (2014) noted that lack of adequate planning and continual evaluation is a major reason for the frequent failure of agricultural extension activities in the devolved system. The findings also agreed with those of Ong'ayo (2018) who examined extension service providers' perceptions towards demand driven system of agricultural extension service delivery in Siaya and Kilifi Counties in Kenya. The study found that over 80% of the statements used to assess extension officers' perception showed no difference.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main aim of this study was to determine agricultural extension staff perception towards selected factors in Kericho County before and under devolution in Kenya. In this Chapter, the summary and conclusions are presented. It further highlights the recommendations of the study and outlines proposed areas for future study. The conclusions and recommendations are presented with reference to the objectives of the study.

5.2 Summary

In Kenya, devolution started under the promulgation of the constitution in 2010. The agriculture sector was among the sectors that were devolved to the county governments to take services closer to the people. Since the implementation of the devolved system of governance in Kenya, its effect on agricultural extension service delivery, in Kericho has not been studied and documented. The purpose of this study, therefore, was to determine the perception of agricultural extension staff towards selected factors in Kericho county before and under devolution in Kenya.

The first objective of this study was to describe the perceptions of agricultural staff towards level of financial support before and under devolution in agricultural extension in Kericho County. The second objective was to determine the perceptions of agricultural staff towards the level of human resource development before and under devolution of agricultural extension service delivery in Kericho County. The focus of the third objective was describe the perceptions of staff towards the level of implementation of agricultural extension activities before and under devolution in Kericho County.

This study was guided by Soufflé Theory. The study adopted a descriptive research design, which was used to describe characteristics of a population or phenomenon being studied. The target population comprised of 117 agricultural extension officers in Kericho County. The study used a census sampling method because the target population was very small; thus, all the units in the target population were considered. However, inclusion criteria were applied by only including individuals who were in employment both before and under devolution.

Data were collected using a structured questionnaire. To ascertain the validity of the instruments, a panel of experts in the field of agricultural extension consisting of supervisors and other experts were consulted. A pilot study was conducted using a sample of 10 extension staff from the neighbouring Bomet County to help estimate the reliability of the instrument. Cronbach alpha coefficient was 0.787. The data collected were analysed using descriptive statistics (means, standard deviation, frequencies, and percentages) with the aid of SPSS.

The t-test results showed a statistically significant perception towards funding and agricultural extension services before and under devolution in Kericho county. The paired t-test results also showed that all the pairs of statements regarding the perceptions of agricultural staff towards the level of human resource development before and under devolution of agricultural extension service delivery was statistically significant. Similarly, paired t-test results show that all the pair of statements about the perceptions of staff towards the level of implementation of agricultural extension activities before and under devolution was statistically significant. The findings based on each objective are summarised in sections 5.2.1, 5.2.2 and 5.2.3.

5.2.1 Perception of agricultural extension staff towards financial support and Agricultural Extension Service

On perception towards funding and agricultural extension services, the findings revealed that an overwhelming majority of the respondents (86.1%) were positive with the statement that there was transparency in financial matters of extension services before devolution. The results show that 74.2% of the respondents reacted positively to the statement that budgeting process in the County was participatory before devolution. Further results showed that 64.5% of the respondents were positive that the money allocated to agricultural extension services is sufficient before devolution. The outcomes also showed that 65.6% were positive on the statement that there is timely disbursement of money towards agricultural extension in the County before devolution. Moreover, the results revealed that 66.6% of the respondents responded positively to the statement that financial accountability was evident in Kericho County before devolution. The findings further indicated that majority of the respondents were positive on all the statements regarding the funding of agricultural extension services before devolution. On the other hand, average scores indicated that majority of the respondents were negative on all the statements regarding the funding of agricultural extension services under devolution.

5.2.2 Perception of agricultural extension staff towards Human Resource Development before and under devolution

On human resource development and the agricultural extension service, the outcomes showed that majority of the respondents, 61.3% were positive with the statement that the recruitment of relevant, and qualified extension staff was undertaken in a timely manner before devolution. The results indicate that 63.5% of the respondents reacted positively to the statement that the number of agricultural extension staff in the County was adequate before devolution. Further results showed that 63.5% of the respondents were positive that there were regular skills and knowledge gap evaluation of agricultural extension staff in the County before devolution. The findings also showed that 58.0% were positive on the statement that the County Government encourages further training and education among staff before devolution. Moreover, the study found that 60.2% of the respondents responded positively to the statement that there is a clear cut career progression and development for extension staff in the County before devolution. The findings indicated that majority of the respondents were positive on all the statements concerning human resource development before devolution. However, the study also indicated that majority of the respondents regarding human resource development under devolution.

5.2.3 Perception of agricultural extension staff towards implementation of agricultural extension before and under devolution

The results on devolution and perception on implementation of agricultural extension, showed that that majority of the respondents, 62.3% were positive with the statement that Resource mobilization before programme implementation was carried out effectively before devolution. The results show that 64.6% of the respondents reacted positively to the statement that guidance and supervision of staff is undertaken regularly during programme implementation before devolution. Further results showed that the majority of the respondents, 85% were positive that extension activities are undertaken as planned before devolution. The outcomes also showed that 74.2% were positive on the statement that fiscal management and financial accountability is practiced before devolution. Moreover, the results revealed that 74.2% of the respondents respondents positively to the statement that Risk management (provision of a safe working environment) are adhered to before devolution. The outcomes indicate that 60.3% of the

respondents reacted positively to the statement that marketing of extension programme to the stakeholders is done before devolution. The results also show that 72% of the respondents reacted positively to the statement that collaboration is emphasized before devolution. Further results revealed that huge majority of the respondents, 88.2% were positive that agricultural extension services are subjected to M&E before devolution. The findings indicated that majority of the respondents regarding the implementation of agricultural extension before devolution. Conversely, average scores indicated that majority of the respondents were negative on all the statement under devolution.

5.3 Conclusions

Although devolution of agricultural functions to the county government was meant to improve the delivery of agricultural extension services and lead to positive perception of agricultural extension staff, this is not the case a decade after promulgation of Constitution of Kenya 2010. Agricultural extensive staff perceive that financial support, human resource development and implementation of agricultural pragmas was better before devolution compared to under devolution. The study concludes that the financial support before and under devolution of agricultural extension in Kericho County are different. The results indicate that the financial support was better before devolution compared to under devolution. The findings suggest that human resource development was better before the introduction of agricultural extension services before and under devolution. Similarly, the implementation of agricultural extension services before and under devolution of agricultural extension services before and under devolution of agricultural extension services before and under devolution of agricultural extension services was better before devolution than under devolution.

5.4 **Recommendations**

According to the findings, the following measures should be adopted:

- a) The study recommends that agricultural functions related to financial support should be taken back to the national government. In other words, these functions should not be devolved.
- b) National governments should take full control or recruitment, training, reskilling, and retooling to their agriculture department workers. It is evident from the study based on the

perception of the agricultural extension staff that before devolution human resource development was better than under devolution.

c) In addition, the Ministry of Agriculture and the County Governments should adopt a modern and advanced strategy such as use of technology to improve the implementation of agricultural extension services such as farm visits, field demonstrations, and experimentation, among others. This will improve their ability to recognize the significance of requesting services from various extension advisory organizations at the proper time.

5.5 Suggestions for Further Research

This study was done using quantitative methods. Future research should be done using qualitative methods for in-depth information and analysis in similar studies. Likewise, this study was conducted in Kericho County, further studies can be done in different counties to replicate the current study.

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APPENDICES

Appendix I: Questionnaire for Extension Officers

I am Ruth Chemutai Chelule and currently conducting a study entitled "AGRICULTURAL EXTENSION STAFF PERCEPTIONS TOWARDS SELECTED FACTORS IN KERICHO COUNTY BEFORE AND UNDER DEVOLUTION IN KENYA" in partial fulfilment for the requirements for the award of the degree of Master of Science in Community Development Studies and Extension of Egerton University. I kindly request you to assist me in filling this questionnaire. This study is an academic study and the information obtained through this questionnaire will be treated confidentially and will not be used for any other purpose other than academic research.

SECTION A: DEMOGRAPHIC INFORMATION

Please tick in the bracket the most appropriate answer.

1. What is your gender?

Male () Female ()

- 2. What is your age bracket in years?
 - 1. Below 25 ()
 - 2. 26-35 ()
 - 3. 36-45 ()
 - 4. 46-50 ()
 - e) Above 50 ()
- 3. For how long have you been providing extension services?
 - Less than 1 year [] 1 – 5 Years [] 6 – 10 Years [] Above 10 Years []
- 4. What is your highest level of education?
 - Secondary[]College Diploma[]University Degree[]Post Graduate[]

5. What area of specialization do you engage in extension service?

Dairy	[]
Poultry	[]
Crops	[]
Fishery	[]
Other/Specify	

SECTION B: LEVEL OF FINANCIAL SUPPORT FOR EXTENSION SERVICES

6. What is your perception towards the following statements related to financial support before (2010) and under (2010) devolution in your County? Use a scale where 1= Very negative, 2= negative, 3=somehow positive, 4= positive, 5= very positive. Indicate your perception by ticking in the appropriate box adjacent to the relevant statement.

	a) Before Devolution								Und Dev		ion
Statement	1	2	3	4	5		1	2	3	4	5
There is transparency in financial											
matters of extension services											
Budgeting process in the County is											
participatory											
The money allocated to agricultural											
extension services is sufficient											
There is timely disbursement of											
money towards agricultural extension											
in the County											
Financial accountability is evident in											
Kericho County											

7. Comment freely on the financial support to agricultural extension before and under devolution.

SECTION C: HUMAN RESOURCES DEVELOPMENT

 State your perception towards the following statements related to human resource development in agricultural extension service before (2010) and under (2010) devolution. Use a scale where 1= Very negative, 2= negative, 3=somehow positive, 4= positive, 5= very positive. Indicate your perception by ticking in the appropriate box adjacent to the relevant statement.

	Before Devolution					Under Devolution									
Statement	1	2	3	4	5		1	2	3	4	5				
The recruitment of relevant, and qualified extension															
staff is undertaken in a timely manner.															
The number of agricultural extension staff in the															
County is adequate.															
There is regular skills and knowledge gap evaluation															
of agricultural extension staff in the County															
The County Government encourages further training															
and education among staff															
There is a clear cut career progression and															
development for extension staff in the County															

9. Comment freely on the effect of devolution on human resource development before and under devolution.

SECTION D: IMPLEMENTATION OF EXTENSION PROJECTS

10. State your perception towards the following statements related to the implementation of agricultural extension service before (2010) and under (2010) devolution. Use a scale of 1=very negative, 2=negative, 3= somehow positive, 4= positive, 5= very positive. Indicate your perception by ticking in the appropriate box adjacent to the relevant statement

	Before Under Devolution Devolution													
	Devolution													
Statement	1	2	3	4	5		1	2	3	4	5			
Resource mobilization before programme														
implementation is carried out effectively														
Guidance and supervision of staff is undertaken														
regularly during programme implementation														
Extension activities (Farm visits, demonstrations,														
field days, educational tours, barazas, talk shows) are														
undertaken as planned.														
Fiscal management and financial accountability is														
practiced.														
Risk management (provision of a safe working														
environment) are adhered to														
Marketing of extension programme to the														
stakeholders is done														
Collaboration (working with other agencies,														
organizations and groups) is emphasized.														
Agricultural extension services are subjected to M&E														

11. Comment freely on the effect of devolution on the implementation of agricultural extension services.

END

THANK YOU FOR YOUR PARTICIPATION

Appendix II: Data Analysis Outputs

Table 5: Perceptions of agricultural staff towards financial support for extension services

Statements		Very Negative (%)	Negative (%)	Somehow Positive (%)	Positive (%)	Very Positive (%)	Mean	SD	Skewness	Kurtosis
There is transparency in financial matters of extension services	Before Under	0 29	4.3 45.2	9.7 21.5	62.4 4.3	23.7 0	4.05 2.01	0.713 0.827	-0.853 0.363	1.031 -0.615
Budgeting process in the County is participatory	Before	8.6	10.8	6.5	51.6	22.6	3.69	1.189	-0.927	-0.161
	Under	33.3	35.5	18.3	10.8	2.2	2.13	1.066	0.693	-0.194
The money allocated to agricultural extension services is sufficient	Before Under	3.2 57.0	5.4 37.6	26.9 5.4	30.1 0	34.4 0	3.87 1.48	1.055 0.601	-0.689 0.808	-0.082 0.303
There is timely disbursement	Before	5.4	5.4	23.7	46.2	19.4	3.69	1.021	-0.747	0.184
of money towards agricultural extension in the County	Under	45.2	40.9	6.5	7.5	0	1.76	0.877	1.250	1.346
Financial accountability is	Before	0	4.3	29.0	46.2	20.4	3.83	0.802	-0.174	-0.522
evident in Kericho County	Under	26.8	31.4	34.5	7.3	0	2.23	0.934	0.42	-1.082

Statements	Devolution	Very Negative (%)	Negative (%)	Somehow Positive (%)	Positive (%)	Very Positive (%)	Mean	SD	Skewness	Kurtosis
	De		10.2		40.5		2 5 5	0.02	0.064	0.000
The recruitment of relevant, and qualified extension staff is undertaken in a timely manner	Before Under	0 36.6	18.3 41.9	20.4 7.5	49.5 14.0	11.8 0	3.55 1.99	0.93 1.01	-0.264 0.937	-0.826 -0.120
The number of agricultural	Before	2.2	8.6	25.8	44.1	19.4	3.70	0.95	-0.514	0.146
extension staff in the County is adequate	Under	40.9	35.5%	16.1	4.3	3.2	1.94	1.02	1.318	1.529
There is regular skills and	Before	2.2	10.8	23.7	44.1	19.4	3.68	0.98	-0.501	-0.214
knowledge gap evaluation of agricultural extension staff in the County	Under	32.3	40.9	14.0	10.8	2.2	2.10	1.04	0.929	0.260
The County Government	Before	5.4	12.9	23.7	37.6	20.4	3.55	1.12	-0.506	-0.257
encourages further training and education among staff	Under	11.8	33.3	34.4	12.9	7.5	12.71	1.08	0.478	-0.287
There is a clear cut career	Before	2.2	11.8	25.8	37.6	22.6	3.67	1.02	0.501	-0.159
progression and development for extension staff in the County	Under	24.7	25.8	23.7	20.4	5.4	2.56	1.22	0.295	-0.958

 Table 6: Summary of perceptions of agricultural staff towards the level of human resource development

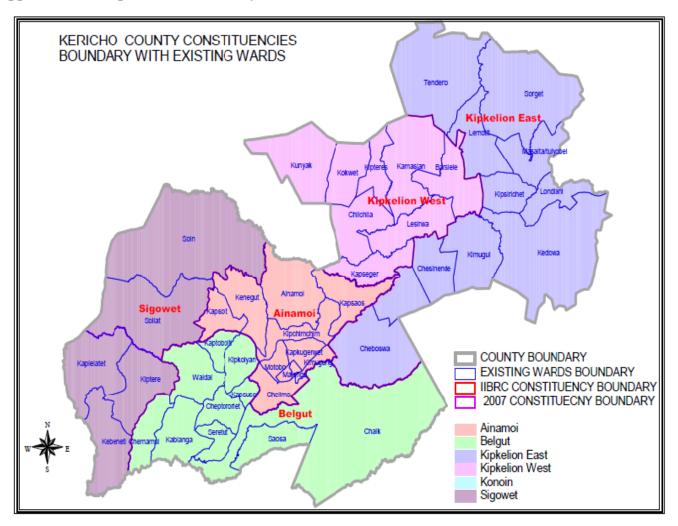
Statements	Devolution	Very Negative	Negative	Somehow Positive	Positive	Very Positive	Mean	SD	Skewness	Kurtosis
		(%)	(%)	(%)	(%)	(%)				
Resource mobilization before	Before	2.2	0	35.5	37.6	24.7	3.83	0.880	-0.06	0.857
programme implementation is carried out effectively	Under	20.4	38.7	23.7	14.0	3.2	2.41	1.066	0.31	-0.051
Guidance and supervision of staff	Before	0	6.5	29.0	36.6	28.0	3.86	0.904	-0.235	-0.778
is undertaken regularly during programme implementation	Under	20.4	38.7	23.7	14.0	3.2	2.39	1.043	0.458	-0.108
Extension activities are undertaken	Before	0	7.5	7.5	45.2	39.8	4.17	0.868	-1.014	0.786
as planned.	Under	25.8	36.6	26.9	10.8	0	2.23	0.957	0.284	0.816
Fiscal management and financial	Before	4.3	7.5	14.0	57.0	17.2	3.75	0.974	-1.135	1.070
accountability is practiced	Under	22.6	28.0	31.2	11.8	6.5	2.52	1.157	0.445	-0.349
Risk management (provision of a	Before	4.3	9.7	11.8	62.4	11.8	3.68	0.957	-1.239	1.190
safe working environment) are adhered to	Under	23.7	40.9	25.8	3.2	6.5	2.28	1.067	0.863	0.415
Marketing of extension programme	Before	4.3	11.8	23.7	36.6	23.7	3.63	1.101	-0.67	-0.074
to the stakeholders is done	Under	19.4	34.4	24.7	15.1	6.5	2.55	1.156	0.432	-0.523
Collaboration (working with other	Before	2.2	2.2	23.7	41.9	30.1	3.96	0.908	-0.98	1.333
agencies, organizations and groups) is emphasized.	Under	19.4	10.8	37.6	29.0	3.2	2.86	1.138	-0.331	-0.972
Agricultural extension services are	Before	4.3	2.2	5.4	55.9	32.3	4.1	0.922	-1.621	3.853
subjected to M&E	Under	18.3	28.0	26.9	26.9	6.5	2.89	1.179	0.256	-0.788

 Table 7: Summary of Perceptions of agricultural staff towards the level of implementation of agricultural extension activities

Appendix III: Kericho County in Kenya Map



Appendix IV: Map of Kericho County



Appendix V: NACOSTI Research Permit

NACOST NATIONAL COMMISSION FOR REPUBLIC OF KENYA SCIENCE, TECHNOLOGY & INNOVATION Ref No: 942490 Date of Issue: 25/November/2021 RESEARCH LICENSE This is to Certify that Ms... RUTH CHEMUTAI CHELULE of Egerton University, has been licensed to conduct research in Kericho on the topic: AGRICULTURAL EXTENSION STAFF PERCEPTIONS TOWARDS SELECTED FACTORS IN KERICHO COUNTY BEFORE AND AFTER DEVOLUTION IN KENYA for the period ending : 25/November/2022. License No: NACOSTI/P/21/14276 942490 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION Applicant Identification Number Verification QR Code NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix IV: Research Authorization - Department of Agriculture, Livestock and Fisheries

COUNTY GOVERNMENT OF KERICHO DEPARTMENT OF AGRICULTURE, LIVESTOCK AND FISHERIES Email: cdakericho@yahoo.com County Director of Agriculture Ref: CDA/KCO/TRAINING/5/VOL.I/ (44) P.O. Box 112-20200 KERICHO. 23rd 23rd December, 2021 TO WHOM IT MY CONCERN RE: RESEARCH AUTHORIZATION: MRS RUTH CHELULE LICENCE NACOSTI Inter Bat. No 040400

Reference is made to the Director General NACOSTI letter Rcf: No.942490 dated 25th November, 2021 granting the above named student authority to proceed for field research work on "Agricultural Extension Staff Perceptions Towards Selected Factors in Kericho County Before and After Devolution in Kenya" for the period ending by 25th November, 2022.

This is to request your institution/organization to accord her the necessary support during the data collection process.

Thank you.

Johnstone Rono County Director of Agriculture

Appendix VII- Ministry of Interior and Co-ordination of National Government



MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT

Telegrams: Telephone: Kericho 20132 When replying please quote kerichocc@yahoo.com COUNTY COMMISSIONER KERICHO COUNTY P.C. BOX 19 KERICHO

REF: MISC.19 VOL.VII (218)

10th December, 2021

Ruth Chemutal Chelule Egenon University NJORO

RE: RESEARCH AUTHORIZATION -REF. NO. 942490

I am pleased to inform you that you are authorized to undertake research vide license Ref. No. NACOSTI/P/21/14276 dated 25th November, 2021 on "Agricultural Extension Staff Perceptions Towards Selected Factors in Kericho County Before and After Devolution in Kenya" for a period ending 25th November, 2022.

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J. N. NYAMWAMU FOR: COUNTY COMMISSIONER <u>KERICHO COUNTY</u>

CC: COUNTY DIRECTOR OF EDUCATION KERICHO COUNTY

Appendix VIII: Research Authorization - Ministry of Education



REPUBLIC OF KENYA

MINISTRY OF EDUCATION State Department of Early Learning and Basic Education

Email:cdekerichocounty@gmail.com When Replying Please Quote: County Education Office P.O BOX 149 <u>KERICHO</u> 10th December, 2021

Ref: KER/C/ED/GC/2/VOL.II1/15

TO WHOM IT MAY CONCERN.

RE: RESEARCH AUTHORIZATION: MS. RUTH CHEMUTAI CHELULE LICENCE NO.NACOSTI/P/21/12476.

I refer to the Director General NACOSTI Letter Ref: No. 942490 dated 25^{TP} November, 2021 granting the above student authority to proceed for field work. Her area of study is titled; "<u>AGRICULTURAL EXTENSION STAFF PERCEPTIONS</u> <u>TOWARDS SELECTED FACTORS IN KERICHO COUNTY</u> <u>BEFORE AND AFTER</u> <u>DEVOLUTION IN KENYA</u>" for the period ending 25/11/2022.

This is to request your office to accord her the necessary support during the data collection process.

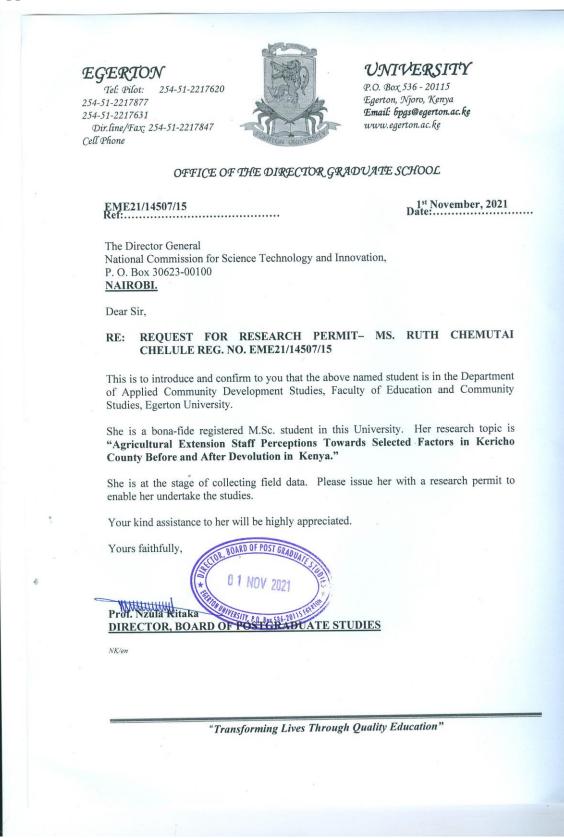
Thank you.



ROSE K SAGARA COUNTY DIRECTOR OF EDUCATION KERICHO COUNTY.



Appendix IX: Letter of Introduction



Appendix X: Journal First Page



Asian Journal of Agricultural Extension, Economics & Sociology

40(9): 128-135, 2022; Article no.AJAEES.87817 ISSN: 2320-7027

Perceptions of Agricultural Extension Staff towards Financial Support Before and After Devolution in Kericho County, Kenya

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Original Research Article

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ABSTRACT

Agricultural extension services are put in place to improve rural development in many nations. Devolution of agricultural extension services have been tried in many nations with mixed results. Since the implementation of the devolved system of governance in Kenya, its effect on agricultural extension service delivery, in Kericho has not been studied and documented. The purpose of this study was to determine the perception of agricultural extension staff towards financial support in Kericho county before and after devolution in Kenya. The study adopted a descriptive research design, which is used to describe characteristics of a population or phenomenon being studied. The target population comprised of 117 agricultural extension officers in Kericho County. The study used a census sampling method because the target population was very small; thus, all the units in the target population were considered. However, inclusion criteria were applied by only including individuals who were in employment both before and after devolution. Data were collected using a questionnaire. The data collected were analysed using descriptive statistics (means, standard deviation, frequencies, and percentages) inferential statistics (paired correlation and paired t-test) with the aid of SPSS. The results show that the majority of the respondents, (86%) were either positive or very positive towards financial transparency before devolution as opposed to the only 4.3% after devolution. The t-test results showed a statistically significant difference in perception of