

**MONITORING AND EVALUATION PRACTICES ON SUSTAINABILITY OF
AGRIBUSINESS PROJECTS IN MT. KENYA REGION: A CASE OF FARMER-TO-
FARMER PROGRAM IN KIRINYAGA COUNTY**

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**A Research Project submitted in partial fulfilment of the requirements
for the award of the degree of Master of Arts degree Monitoring and Evaluation of
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DECLARATION

I declare that this document and the research that they describe are my original work and that they have not been presented in any other university for academic work.

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DEDICATION

This thesis is dedicated to my dear wife, Beatrice Wakarima Wanjiru who has been instrumental in my academic journey. Her unwavering support and encouragement have played a crucial role in my success.

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DEFINITION OF TERMS

Training sessions conducted: This refers to the total number of training sessions or workshops conducted specifically for monitoring and evaluation (M&E) of a program or project. These sessions could include both formal and informal training, workshops, and other capacity-building activities.

Staff trained on M&E: This refers to the proportion of staff working on a particular project or program who have received training on M&E. This could include training in data collection, analysis, and reporting.

Decision-making: This refers to the number of occasions when data collected through the M&E process has been used to inform decision-making about the program or project. This could include decisions about program implementation, resource allocation, or future planning.

Communication channels: The different channel to which data is disseminated to the stakeholders.

Percentage of beneficiaries who are able to develop data collection tools: This refers to the proportion of program beneficiaries who have been trained and are capable of developing data collection tools, such as surveys or questionnaires, to collect information on the impact of the program on their lives.

Number of beneficiaries who developed indicators for program monitoring: This refers to the number of program beneficiaries who have been trained and are capable of developing indicators to monitor the progress and impact of the program or project.

Production sustainability: This refers to the ability of the program or project to maintain production levels over time, without degrading natural resources or negatively impacting the environment.

Food Security: This refers to the state in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

Better Farming Practices: This refers to the use of improved and sustainable farming methods that promote efficient use of natural resources, increased productivity, and reduced negative impact on the environment.

ABBREVIATIONS AND ACRONYMS

A2F	Access to Finance
F2F	Farmer to Farmer
GDP	Gross Domestic Product
IESC	Improving Economies for Stronger Communities
M&E	Monitoring and Evaluation
NGO	Non-Government Organization
USAID	United States Agency for International Development
SDG	Sustainable Development Goals
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development

ABSTRACT

This research study evaluates the sustainability of agribusiness projects in the Mt. Kenya Region, focusing on the USAID-funded Farmer to Farmer Project. It assesses monitoring and evaluation practices, project status, capacity building challenges, routine monitoring and data demand. The study aims to enhance project viability, address gaps, and overcome obstacles for long-term success. The objective of the study was establish how capacity building in monitoring and evaluation (M&E) on the sustainability of agribusiness projects, identify the influence of Routine

Program Monitoring on sustainability, and examine how data demand and utilization in M&E affect the sustainability of agribusiness projects. The study employs the theoretical framework of sustainable development to integrate economic, social, and environmental factors into monitoring and evaluation practices of agribusiness projects, aiming for long-term sustainability in the Mt. Kenya region. Descriptive survey research design and correlation research design were adapted. Target population was 900 people and a sample size of 277, which is determined by the use of Krechjic and Morgan Table of 1970. While interviews were utilized in collecting qualitative data, structured questionnaires were used to collect numerical. The instruments were deemed reliable when Cronbach's α was greater than 0.7. Nvivo software 12 Plus was the preferred method of analyzing narrative data from interviews. By use of Statistical Packages for Social Sciences (SPSS) version 25, numerical data from questionnaires generated descriptive statistics namely: mean, frequency, standard deviation and percentages. Pearson's correlation analysis was used to establish the relationship between independent and dependent variables. Regression analysis was utilized to test the fitness of the model in predicting the Sustainability of agribusiness projects in Mt. Kenya region. F statistical test was used in testing hypothesis at 95% confidence interval. The strength of the relationship between monitoring and evaluation practices and Sustainability of agribusiness projects in Mt. Kenya region decreased in the following order: Capacity Building in M&E ($r=0.115$), Routine Program Monitoring ($r=0.117$) and data usage ($r=0.131$). The model predicted 94% in the variation of Sustainability of agribusiness projects in Mt. Kenya region. The overall conclusion was that monitoring and evaluation practices (capacity building in M&E, Routine Program Monitoring and data usage) have significant influence on Sustainability of agribusiness projects in Mt. Kenya region. Government is recommended to create policies that can promote training of farmers, enhance quality and Sustainability of agribusiness projects in Mt. Kenya region. Further studies can be done to test the moderation of monitoring and evaluation systems.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The aim of this research study is to examine the sustainability of agribusiness projects in the Mt. Kenya Region, with a specific focus on the USAID-funded Farmer to Farmer Project, by investigating the various monitoring and evaluation practices employed. The study sought to assess the present condition of agribusiness projects in the region and identify potential gaps and challenges relating to capacity building for monitoring and evaluation, as well as the demand and utilization of data.

1.2 Background of the Study

Globally, Agriculture has been for a long time the most vital project in food production around the world. Its direct link to environment harm through clearing of forest cover and use of chemicals has led to debate on how it can be practiced in a way that minimizes the environmental damage. In the era of climate change, this has raised concern on the possible practices that can lead to sustainable practices (Silveira et al. 2018). In so doing, most organizations around the world have developed framework for sustainable practices. To monitor the progress of this noble causes monitoring and evaluation has been identified as an important part of the process (Silveira et al. 2018). Monitoring and evaluation has been considered to be the best practice of tracking changes and progress as far as projects is concerned. Monitoring and evaluation provides a framework for setting clear objective and indicators that are used to benchmark the project success.

In Kenya, the agricultural sector is crucial to the economy, contributing over 65% of export earnings, 27% of GDP, and providing employment and sustenance to 80% of the population. The majority of production is carried out by small-scale farmers, particularly women and youth in rural areas, who account for 63% of crops and livestock production (Odhiambo, Wakibia, &

Sakwa, 2020). However, a lack of financing is hindering the country's efforts to become self-sufficient in food, improve the standard of living, and promote growth in rural areas and the national economy. This is due to poor record keeping among small-scale farmers, which makes it difficult for financial institutions to make lending decisions, as well as high operational costs for reaching remote rural populations.

Agribusiness has been identified as a key sector for economic growth and development in many countries, including Kenya. The Mt. Kenya Region, in particular, is known for its rich natural resources and potential for agricultural production. However, despite this potential, the region has been facing a number of challenges in terms of sustainable agribusiness development (Gathege & Yusuf, 2019).

One of the main challenges in the region is the lack of any form of monitoring and evaluation (M&E) practices for agribusiness small holder farmers, local partners supporting with implementation of the projects at farmer level. M&E practices are crucial for assessing the impact and progress of a project, as well as identifying any gaps or challenges that need to be addressed (Riwasino & Kerua, 2020). Without effective M&E systems, it is difficult to ensure that agribusiness projects are achieving their intended objectives and are sustainable over time (Mbeche, Mose & Ateka, 2022).

The F2F A2F Program in Mount Kenya region is a comprehensive initiative aimed at supporting and empowering local farmers through partners who are either farmers' groups, cooperatives or SACCOS. The program provides targeted technical support that include training and technical assistance to farmers in the region, with a focus on poultry farming, dairy farming, and pig rearing. (Mbeche, Mose & Ateka, 2022).

One of the main challenges in terms of M&E for the F2F A2F Program is capacity building in M&E of the partners and small holder farmers. Capacity building in M&E refers to the process

of equipping individuals and organizations with the skills and knowledge needed to effectively plan, implement, and evaluate projects (Mbeche, Mose & Ateka, 2022). In the context of the F2F A2F Program, there is a need to build the capacity of project staff, project stakeholders such as partners and small holder farmers to effectively monitor and evaluate the project's progress and impact.

Another challenge in terms of M&E for the F2F Project is data usage. Data usage refers to the need for and use of data for project related and M&E purposes. In the context of agribusiness projects, data on project inputs, outputs, outcomes, and impacts is crucial for making informed decisions and ensuring project sustainability (Kiptot & Franzel, 2019). However, there are often challenges in terms of data availability, quality, and use in the F2F Project.

The process of collecting data continuously throughout the implementation of a project, by F2F partners and small holder farmers is known as Routine Program Monitoring. This type of data collection is essential to track progress towards achieving the project's objectives. It is important to integrate data collection and analysis into the routine program activities to ensure that the project is on track and making progress towards meeting its goals.

The Farmer-to-Farmer (F2F) program engages with partners in the Mt. Kenya region, working with smallholder farmers who collaborate with these partners on the ground to improve their productivity. Through this program, farmers are provided with technical assistance, training, and access to new technologies and best practices, enabling them to increase their yields, improve the quality of their crops, and ultimately enhance their livelihoods. The F2F program serves as a platform for sharing knowledge and expertise between farmers and agricultural professionals, building capacity and promoting sustainable agricultural practices in the region.

In summary, the Mt. Kenya Region has potential for agribusiness development, but it has been facing a number of challenges, particularly in terms of sustainable agribusiness development.

The F2F A2F program, an agribusiness project that aims to improve agricultural productivity and market access for smallholder farmers in the region, has been implemented but it has been facing challenges in terms of M&E its progress, impact and ensuring sustainability over time. The challenges include lack of capacity building in M&E, data usage, research, surveillance, and sustainability.

1.2.1 Sustainability of Agribusiness Projects

Sustainability in agribusiness projects refers to the ability to continue and maintain the positive impacts of the project over time. This includes ensuring that the project is economically viable, environmentally sustainable, and socially responsible. In the context of agribusiness projects, sustainability is a multifaceted concept that encompasses various dimensions such as economic, environmental, and social aspects (Yami,et al. 2019).

Economic sustainability in agribusiness projects refers to the ability of the project to generate income and create jobs for the local community. This includes ensuring that the project is profitable for the farmers and businesses involved and that it creates a positive impact on the local economy. Environmental sustainability, on the other hand, refers to the ability of the project to protect and conserve the natural resources in the region (Yami,et al. 2019). This includes reducing the use of chemical inputs, protecting biodiversity and preserving natural habitats.

Social sustainability in agribusiness projects refers to the ability of the project to improve the livelihoods of the local community and promote social inclusion. This includes ensuring that the project is accessible to all members of the community, regardless of their social or economic status, and that it promotes gender equality and women empowerment (Gaffney, Challender, Califf & Harden, 2019). Social sustainability also includes ensuring that the project promotes the rights of indigenous peoples and promotes cultural preservation.

In the context of the Mt. Kenya Region, sustainability in agribusiness projects is particularly

important as it can contribute to poverty reduction, food security, and conservation of natural resources (McCord et al. 2020). The region is known for its rich natural resources and potential for agricultural production, but it is also facing a number of challenges such as land degradation, loss of biodiversity, and poor soil fertility. Ensuring sustainability in agribusiness projects in the region can help to address these challenges and promote sustainable development (Zaehring, Wambugu, Kiteme & Eckert, 2018).

However, achieving sustainability in agribusiness projects is not always easy and requires a comprehensive approach. This includes involving all stakeholders in the planning and implementation of the project, promoting participatory decision-making, and conducting routine program monitoring, undertaking evaluation and research to assess the impact of the project and identify any gaps or challenges that need to be addressed (Zamlynskyi et al. 2023). Additionally, it is also important to ensure that the project is aligned with national and international sustainability frameworks, such as the Sustainable Development Goals (SDGs) and the United Nations Framework Convention on Climate Change (UNFCCC).

1.2.2.1 Capacity Building in M&E

Capacity building in M&E refers to the process of equipping individuals and organizations with the skills and knowledge needed to effectively plan, implement, and evaluate projects. This includes providing training and support to project staff and stakeholders to help them understand the M&E process and develop the necessary skills to carry out monitoring and evaluation activities (Mangheni, et al. 2021).

Capacity building in M&E is crucial for ensuring that agribusiness projects are achieving their intended objectives and are sustainable over time. Without effective M&E systems, it is difficult to assess the impact and progress of a project, as well as identify any gaps or challenges that need to be addressed (Zaehring, Wambugu, Kiteme & Eckert, 2018). Additionally, capacity

building in M&E can also help to ensure that project staff and stakeholders are aware of their roles and responsibilities and can effectively carry out monitoring and evaluation activities.

Many countries struggle with having the necessary resources and capabilities to effectively conduct monitoring and evaluation, as noted by (Yami,et al. (2019). This can lead to questions such as the availability of training and professional development opportunities, and if field visits include a focus on monitoring and evaluation content. The quality of monitoring and evaluation is crucial and it is important to consider not only the technical aspect but also the human resource development aspect, which includes training and skill-building beyond formal education (Loic, 2018). It's important to consider whose capacity is being developed and for what purpose, as well as the methods used to build those capacities, whether they are soft skills such as motivation, confidence, or building trust. The ability to conduct effective monitoring and evaluation has been linked to improvements in governance, as stated by the Operations Evaluation Department and African Development Bank in 1998 (Kiptot & Franzel, 2019). A conference held by the African Evaluation Association the same year in Johannesburg, South Africa, emphasized the importance of developing capacity in monitoring and evaluation not only by improving skills and tools but also by raising awareness of the importance and use of monitoring and evaluation. The African Development Bank's meeting in 2009 in Casablanca, Morocco, further highlighted the need for African institutions to improve their capacity for monitoring and evaluation and for monitoring and evaluation to be recognized as a valuable tool in Africa (Kiptot & Franzel, 2019).

1.2.2.2Routine Programme monitoring

M&E is composed of two fundamental components: monitoring and evaluation. Monitoring is an essential aspect of this component. It involves collecting data continuously and routinely during project implementation to determine whether the project activities are working towards achieving the set objectives. This data needs to be regularly reported and integrated into program

activities for analysis (Mbeche, Mose & Ateka, 2022). In the case of sustainable agricultural projects, routine program monitoring is crucial to ensure that the project meets its goal of promoting sustainable agricultural practices and enhancing farmers' livelihoods. The monitoring process typically involves collecting data on indicators such as crop yield, soil health, water usage, and farmers' income generation.

For example, a sustainable agricultural project focused on promoting agroforestry practices might establish indicators such as the number of farmers trained in agroforestry techniques, the percentage of farmers adopting these techniques, and the increase in crop yield or income for participating farmers. Program managers would collect data on these indicators through surveys, interviews, and direct observation, and analyze the results to identify areas where the project could be improved.

Based on the monitoring results, program managers might make adjustments to the project design, such as expanding training opportunities or providing additional resources to farmers. They might also adjust the project budget to ensure that resources are allocated in the most effective way. Reporting on the results of the monitoring process is also crucial for sustainable agricultural projects. This reporting can help to secure additional funding, demonstrate the impact of the project, and promote the adoption of sustainable agriculture practices more broadly.

1.2.2.3. Data Usage

To ensure that information gathered during the implementation phase of a project is used to inform future activities, the principle of data usage should be applied. This involves utilizing the data to reinforce the implemented strategy or change it as needed. Furthermore, the results of monitoring and evaluation should be shared with relevant stakeholders for accountability purposes. This principle can be applied in various fields, including health, education, agriculture,

and governance.

Firstly, it is essential to identify the data needs of stakeholders and ensure that the data collected meets those needs. Once the data needs have been established, appropriate methods and tools such as surveys, focus groups, and interviews should be used to collect the data (Porter & Goldman, 2018). Data management is another important aspect of data demand, where data must be stored, processed, and analyzed in a secure and organized manner. The collected data is then analyzed to generate insights that inform decision-making. Monitoring and Evaluation is the final step in the data demand in M & E process, where progress is tracked against established goals and the effectiveness of programs or interventions is evaluated (Riwasino & Kerua, 2020). Data demand in M&E is essential for making evidence-based decisions, improving program effectiveness, and demonstrating impact. It is crucial to involve stakeholders throughout the data demand process to ensure that the data collected is relevant and meets their needs. Ultimately, the implementation of data demand can help organizations and governments make informed decisions that improve outcomes and promote positive change. Monitoring and evaluation (M&E) data use refers to the process of analyzing and interpreting data collected through M&E activities to inform decision-making, program design, and program management (World Bank, (2004)). M&E data can provide valuable insights into program performance, including the effectiveness and efficiency of program activities, as well as the impact of interventions on program beneficiaries (Gathege & Yusuf, 2019). Effective data use involves translating data into actionable insights that can inform decision-making and lead to program improvement. Program implementers can use M&E data to identify strengths and weaknesses in program design and implementation, target interventions to specific groups or regions, and allocate resources more effectively (Mbeche, Mose & Ateka, 2022). They can also use data to communicate program impact to stakeholders and donors, and to demonstrate accountability and transparency (Gathege

& Yusuf, 2019). Effective data use requires building a culture of data use within an organization, developing skills and capacity for data analysis and interpretation, and establishing clear processes for data collection, analysis, and communication. Overall, M&E data use is essential for improving the effectiveness and impact of development programs, and for achieving sustainable development outcomes (Gathege & Yusuf, 2019).

1.3 Statement of the Problem

In the same way that all other types of projects do, agricultural projects rely on monitoring and evaluation as essential tools for assessing efficiency and effectiveness in order to ensure sustainability (Muli, 2020). However, despite significant investments in resources from governments, non-governmental organizations (NGOs), and individual investors, particularly in the agriculture sector, sustainability of projects remains a major challenge in many developing countries (Odhiambo, Wakibia, & Sakwa, 2020). A global trend has emerged in the way monitoring and evaluation is approached, with a greater emphasis on the outcomes and effects of a project, as opposed to just the inputs, activities and outputs. This shift is particularly notable among donors and it may have a positive impact on the sustainability of projects.

Most of the partners in the region have no M&E practices in place, which means that decisions are not always driven by current data. This lack of effective M&E practices is a critical issue that needs to be addressed in order to ensure that agribusiness projects are sustainable and that they deliver the desired impact. By exploring the challenges faced by agribusiness projects in the region and the M&E practices used to assess project performance. (International Food Policy Research Institute 2017).

Statistics on the agricultural performance of various countries across the globe reveal that African nations, including Kenya and specifically Mt. Kenya region lag behind in terms of yield per hectare in comparison to other nations (Kiptot & Franzel, 2019). Additionally, Mt. Kenya

region has lower yield rates compared to demonstration farms in other regions of Africa, pointing to the need for stronger monitoring and evaluation oversight by relevant agencies.

As is the practice, most NGOs are required to have M&E practices that collect data required by the donor, the same cannot be said of local implementing partners or small holder farmers developing M&E practices for their farms, businesses. The study aims to address the challenges and issues related to small holder farmers monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region.

One of the main challenges in agribusiness projects in the Mt. Kenya Region is a lack of effective monitoring and evaluation practices for the end user. Without effective M&E approaches, it is difficult to assess the impact and progress of the project, as well as identify any gaps or challenges that need to be addressed at individual end user level (McCord et al. 2015). Additionally, many agribusiness projects in the region lack the necessary resources to invest in M&E, including funding, human resources, and access to training and necessary support to cascade to the end user.

Another challenge in agribusiness projects in the Mt. Kenya Region is a lack of awareness and understanding of the M&E practices among partner project staff, stakeholders mostly the cooperatives, SACCOs and small holder farmers. Many project staff and stakeholders may not be aware of the importance of M&E or may not understand how to carry out monitoring and evaluation activities (McCord et al. 2015). This can make it difficult to ensure that M&E activities are carried out effectively and that the results are used to inform decision making and improve project performance.

A lack of ownership and commitment to M&E by partner project staff and stakeholders can also be a challenge to effective M&E. Without ownership and commitment, it is difficult to ensure that M&E activities are carried out effectively and that the results are used to inform decision

making and improve project performance (Odhiambo, Wakibia & Sakwa, 2020).

Lastly, there is a need to understand the sustainability of agribusiness projects in the Mt. Kenya

The study aims to address these challenges by examining the current monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region and identifying the key factors that contribute to project sustainability.

1.4 Purpose of the Study

The purpose of the study entitled Monitoring and Evaluation Practices and Sustainability of Agribusiness Projects in Mt. Kenya Region. A case Farmer to Farmer Program is to investigate the current monitoring and evaluation practices in agribusiness projects of the F2F partners that include cooperatives, SACCO, farmers' groups and small holder farmers within the Mt. Kenya region. Additionally, they provided recommendations for improving monitoring and evaluation practices in the area to ensure project sustainability. The study findings were used to develop effective monitoring and evaluation strategies for agribusiness projects in the Mt. Kenya region. The researchers aimed at providing guidance and support to farmers and other stakeholders involved in agribusiness projects, in order to ensure that their projects are sustainable and successful.

1.5 Objective of the Study

The study was guided by general objective and specific objectives.

The general objective is to assess how monitoring and evaluation practices contributes to sustainability of agricultural projects in Mt. Kenya region.

Specific objectives are as follows.

- i) To assess how capacity building for M&E influence sustainability of agribusiness projects in Mt. Kenya region.
- ii) To determine how Routine Program Monitoring influences sustainability in agribusiness

projects Mt. Kenya region.

- iii) To examine how data usage in monitoring and evaluation influences sustainability of agribusiness projects Mt. Kenya region.

1.6 This study sought to test the following hypotheses;

- i) H₀₁: There is no significant relationship between Capacity building for M&E and sustainability of agribusiness projects Mt. Kenya region
- ii) H₀₂: There is no significant relationship between Routine Program monitoring and sustainability of agribusiness projects Mt. Kenya region.
- iii) H₀₃: There is no significant relationship between data usage in monitoring and evaluation and sustainability of agribusiness projects Mt. Kenya region.

1.7 Significant of the Study

The study on Monitoring and Evaluation Practices and Sustainability of Agribusiness Projects in Mt. Kenya Region.; A case Farmer to Farmer Program" is significant for several reasons. Firstly, it might provide insight into the current monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region, as well as the challenges and issues that need to be addressed to ensure project sustainability. This information can be used by organizations and individuals involved in agribusiness projects in the region to improve the effectiveness of their monitoring and evaluation practices.

Secondly, the study also might contribute to the broader literature on monitoring and evaluation in agribusiness projects, by providing a case study of how monitoring and evaluation can be used to ensure project sustainability in a specific context. This can be useful for researchers, practitioners, and policymakers working in the field of agribusiness and sustainable development.

Thirdly, the study will also contribute to the development of effective capacity building strategies

in monitoring and evaluation for agribusiness projects in the Mt. Kenya Region. This will help to improve the skills and knowledge of project staff and stakeholders, which in turn will improve the effectiveness of monitoring and evaluation activities and ensure project sustainability.

Lastly, provide recommendations for improving monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region. These recommendations can be used by organizations and individuals involved in agribusiness projects in the region to improve the effectiveness of their monitoring and evaluation practices and ensure project sustainability.

1.8 Scope of the Study

The scope of the study on Monitoring and Evaluation Practices and Sustainability of Agribusiness Projects in Mt. Kenya Region; A case Farmer to Farmer Program in Kirinyaga County is limited to the specific focus of monitoring and evaluation in agribusiness projects in the Mt. Kenya Region. The study examined the current monitoring and evaluation practices in agribusiness projects in the region, as well as the challenges and issues that need to be addressed to ensure project sustainability. The study focused on the specific case of the Farmer to Farmer Project in the Mt. Kenya Region, which aimed to improve the livelihoods of smallholder farmers through sustainable agribusiness practices.

The study was conducted using both quantitative and qualitative research methodology, including a review of relevant literature. The study included a review of existing monitoring and evaluation frameworks and guidelines for agribusiness projects, as well as an analysis of data collected through case studies of the Farmer to Farmer Project. The study also included interviews with project staff and stakeholders to gain insight into their perceptions of monitoring and evaluation practices in the project and the challenges they face.

The study examined the relationship between monitoring and evaluation and sustainable development in the context of agribusiness projects in the Mt. Kenya Region.

1.9 Delimitation of the Study

The Mt. Kenya region's favorable climate and topography make it an ideal location for a variety of agribusiness projects, including dairy and pig rearing, as well as coffee, tea, and other cash crops. Additionally, the region benefits from collaborations with local partners through the Farmer-to-Farmer program, which supports financial institutions, cooperatives and small holder farmers by providing training, resources, and support for their agricultural businesses. These factors make the Mt. Kenya region a prime location for sustainable agriculture practices, with the potential to have a positive impact on the local community and build a more resilient agricultural sector.

1.10 Limitation of the Study

The limitations of the study refer to the constraints and challenges faced during the research process. These limitations include:

The study is based on a case study of one specific agribusiness project, which may not be generalizable to other agribusiness projects in the Mt. Kenya Region or other regions.

The study relies on self-reported data from project staff and stakeholders, which may be subject to bias or inaccuracies. However, this was mitigated through assurance that it is only meant for academic purposes. The study may not be able to fully capture the complexity of the project and its context but this will be mitigated by the researcher going into an extra mile to provide more information. The study may not be able to cover all aspects of monitoring and evaluation, sustainability and agribusiness however the recommendations will be made for further research on the same.

It is important to acknowledge these limitations in order to provide a more realistic and accurate understanding of the research findings and their implications.

1.11 Assumption of the Study

The assumptions of the study refer to the underlying beliefs or suppositions that the study is based on. These assumptions include: data collected from the project staff and stakeholders is accurate and reliable meaning it can be used by policy makers to formulate policies and give the right direction to the people concerned. The project staff and stakeholders participated in the research and provided honest and accurate information which can be used by others later.

It is assumed that study might provide a comprehensive understanding of the current monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region.. The study will be able to provide recommendations for improving monitoring and evaluation practices in agribusiness projects in the Mt. Kenya Region to ensure project sustainability. It is important to acknowledge these assumptions in order to provide a more realistic and accurate understanding of the research findings and their implications.

1.12 Theoretical Framework

The theories underpinning the study are: the theory of sustainable development and the theory of change.

1.1.2.1. The theory of sustainable development

The theory of sustainable development emerged in the 1980s and 1990s in response to growing concerns about the impact of economic development on the environment and society. According to Shi, Han, Yang, and Gao (2019), the theory posits that economic growth, social well-being, and environmental protection are interconnected and must be considered together to achieve long-term sustainability. The concept of sustainable development was first formally introduced in 1987 by the World Commission on Environment and Development in the report "Our Common Future, also known as the Brundtland Report, which was written by a group of experts convened by the United Nations and led by Gro Harlem Brundtland, the former Prime Minister of Norway. The assumption of the theory of sustainable development is that economic growth,

social well-being, and environmental protection are interdependent and must be integrated into decision-making processes. This means that economic development cannot be pursued at the expense of the environment or society, and that social development cannot be achieved without environmental protection. The theory also assumes that there are limits to natural resource use and that resource depletion and environmental degradation can undermine long-term economic growth and social development. The theory of sustainable development is related to the study of Monitoring and Evaluation Practices and Sustainability of Agribusiness Projects in Mt. Kenya East; a case Farmer to Farmer Project, because the study aims to identify key factors that contribute to project sustainability. The study examined how monitoring and evaluation practices can be improved to achieve integration of economic, social, and environmental factors in agribusiness projects in the Mt. Kenya region and provide recommendations for ensuring long-term sustainability in the region, which aligns with the principles of sustainable development (Shi et al., 2019).

1.12.2. Theory of Change

Theory of Change is highly relevant to monitoring and evaluation (M&E) practices and the sustainability of agribusiness projects. Developed in the 1990s, the Theory of Change provides a systematic framework for understanding how interventions lead to desired outcomes by mapping the causal pathways and assumptions underlying a program or project (Oberč & Arroyo Schnell, 2020).

The origins of the Theory of Change can be traced back to the work of Carol Weiss and Robert K. Yin in the field of program evaluation. However, its development as a formal framework is often attributed to the Aspen Institute, which popularized the approach in the late 1990s and early 2000s (Dinesh et al. 2021). The Theory of Change is used to clarify the logical connections between project activities, outputs, outcomes, and long-term impacts. It encourages stakeholders

to articulate their underlying assumptions, theories, and beliefs about how change happens and what factors contribute to sustainable outcomes. By doing so, it helps project managers and evaluators to identify the most effective strategies and interventions, as well as potential risks and challenges.

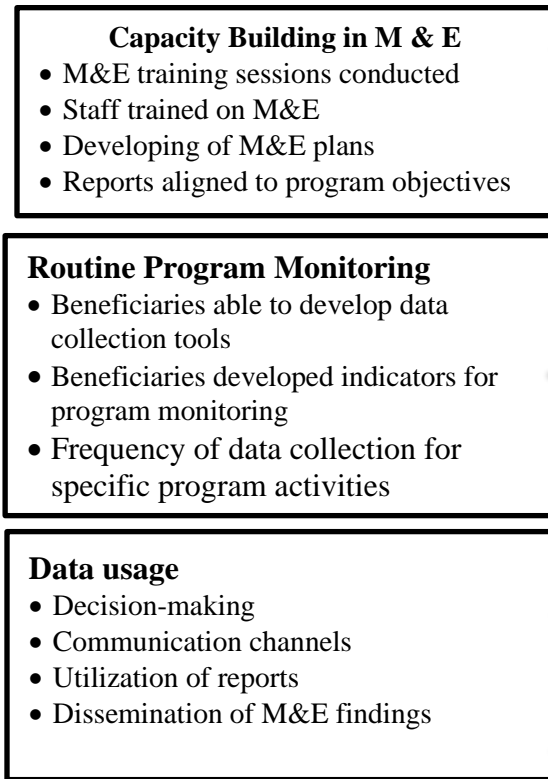
In the context of agribusiness projects, the Theory of Change is relevant in several ways. Firstly, it provides a clear roadmap for planning and implementing M&E activities by defining the expected outcomes and indicators that need to be monitored and evaluated. It helps project stakeholders to identify the key drivers of change and the critical pathways through which sustainability can be achieved (Dinesh et al. 2021).

Secondly, the Theory of Change helps in identifying the underlying assumptions and risks that may affect the sustainability of agribusiness projects. By explicitly stating the assumptions and theories of change, it allows for their examination and validation through M&E activities. This helps in identifying potential gaps or weaknesses in the project design and implementation that may hinder long-term sustainability (Oberč & Arroyo Schnell, 2020).

Lastly, the Theory of Change promotes a culture of learning and adaptation by encouraging ongoing reflection and revision of the project's strategies and interventions (Oberč & Arroyo Schnell, 2020). Through continuous monitoring and evaluation, stakeholders can gather evidence on what works and what doesn't, allowing for informed decision-making and adjustments to ensure project sustainability.

1.13 Conceptual Framework

Independent Variable



Dependent variable

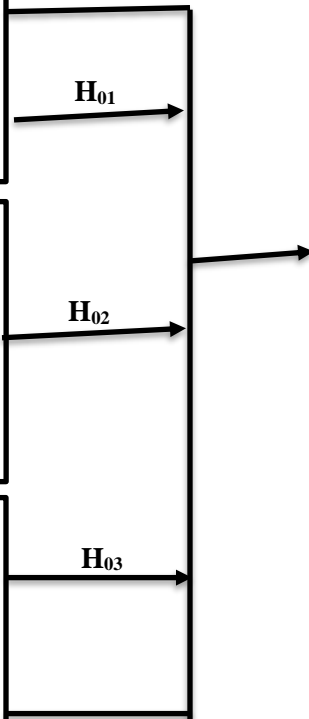


Figure 1: Monitoring and Evaluation practices on sustainability of agribusiness projects in Mt. Kenya region: a case of farmer-to-farmer program in Kirinyaga county

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This literature review aims to explore the impact of monitoring and evaluation (M&E) practices on the sustainability of agribusiness projects in Mt. Kenya Region. The review examined the importance of capacity building in M&E, the role of routine monitoring in M&E and the significance of data usage in M&E.

2.2 Sustainability of Agricultural Project in Mt. Kenya Region.

Sustainability in agriculture refers to the ability of farming systems to persist over time, delivering both economic and environmental benefits. It is a crucial aspect of agricultural development, as it ensures that the benefits of agriculture projects are sustained over the long term, even after external support has been withdrawn (Morea & Balzarini, 2018). Sustainability of agricultural projects is influenced by a range of factors, including natural resource management, stakeholder engagement, and the effectiveness of monitoring and evaluation (M&E) systems.

Natural resource management is a key factor in the sustainability of agricultural projects. This includes the management of land, water, and other resources to ensure that they are used in a sustainable way that balances the needs of the environment and the community (Yu & Wu, 2018). Agricultural projects that prioritize sustainable resource management practices, such as conservation tillage and integrated pest management, are more likely to be sustainable in the long term.

Stakeholder engagement is another critical factor in the sustainability of agricultural projects. Engaging with stakeholders, including farmers, community leaders, and government agencies,

can help to ensure that the needs and priorities of the community are integrated into the design and implementation of agricultural projects. This can also help to build local ownership and accountability, which is essential for ensuring the long-term sustainability of agricultural projects (Silveira et al., 2018).

According to Kamruzzaman & Shaw (2018) posits that M&E practices play a crucial role in ensuring the sustainability of agricultural projects. Effective M&E practices can help to monitor project progress, identify challenges, and inform decision-making to ensure that projects are designed, implemented, and managed in a way that promotes sustainability. The use of data and technology, such as remote sensing and GIS, can also help to improve the accuracy and effectiveness of M&E systems, and enhance the sustainability of agricultural projects.

2.3 Capacity building in M&E on Sustainability of Agricultural Project

According to Loic (2018) in their study in Asia indicates that capacity building in M&E is essential for the sustainability of agribusiness projects globally. The studies conducted in Indonesia, India and Pakistan. The studies also highlight the importance of tailoring Capacity building in M&E to the specific needs of the project team, stakeholder and project objectives to achieve the desired impact. Also, a study by Shiel et al., (2016) in Ukraine and Russia on the impact of capacity building in M&E on the sustainability of agribusiness projects in Europe. The study found that capacity building in M&E is essential for project sustainability. The study highlighted the need for capacity building in M&E to be integrated into the project cycle, from planning to evaluation. The study also recommended that M&E capacity building should be tailored to the specific needs of the project team and the project objectives.

In Africa region a study conducted by Gaffney, Challender, Califf & Harden (2019) focused on Sub-Saharan Africa and revealed that capacity building in M&E is essential for the sustainability of agribusiness projects in the region. The study highlighted the importance of integrating M&E

capacity building into the project cycle, from planning to evaluation. The study also recommended that M&E capacity building should be tailored to the specific needs of the project team and project objectives to achieve the desired impact.

A study conducted on the impact of M&E capacity building on the sustainability of agribusiness projects in Ethiopia. The study found that M&E capacity building is critical for project sustainability. Riwasino & Kerua (2020) emphasized the importance of providing M&E training to project staff to enhance their data collection, analysis, and reporting skills. The study also revealed that M&E capacity building leads to better decision-making and project management, which results in improved project sustainability.

In Kenya, the study conducted by Kiptot & Franzel (2019) focused on Kenya and revealed that M&E capacity building positively affects the sustainability of agribusiness projects in the country. The study recommended that M&E capacity building should be an integral part of agribusiness project planning, implementation, and management. The study also highlighted the need for M&E capacity building to be tailored to the specific needs of the project team to achieve the desired impact. Additionally, Gathege & Yusuf (2019) conducted a study on the impact of M&E capacity building on the sustainability of agribusiness projects in Kenya. The study found that M&E capacity building positively affects the sustainability of agribusiness projects. The study recommended that M&E capacity building should be an integral part of agribusiness project planning, implementation, and management. The study also highlighted the need for M&E capacity building to be tailored to the specific needs of the project team to achieve the desired impact.

While the literature reviewed highlights the importance of M&E capacity building for the sustainability of agribusiness projects, there is a need for more studies that examine the long-term impact of M&E capacity building on project sustainability.

2.4 Routine Program Monitoring and Sustainability of Agricultural Project

Routine program monitoring is an essential component of ensuring the sustainability of agricultural projects (Yami et al. 2019). By tracking and measuring progress towards achieving program objectives, program managers can identify areas for improvement, make informed decisions, and adapt program activities to achieve better results.

One impact of routine program monitoring on the sustainability of agricultural projects is the development of data collection skills among program beneficiaries. By involving beneficiaries in data collection, they become more familiar with the program's objectives, activities, and outcomes (Yami et al. 2019). They also gain valuable skills in data collection and analysis, which can be applied to other areas of their lives and work.

For example, if a sustainable agricultural project involves training farmers in sustainable farming practices, routine program monitoring could involve collecting data on the number of farmers trained, the adoption rate of sustainable practices, and the increase in crop yield. By involving the farmers in data collection, they become more familiar with the program's objectives and outcomes. They also gain valuable skills in data collection and analysis, which they can use to monitor and evaluate their own farming practices.

Another impact of routine program monitoring on the sustainability of agricultural projects is the development of indicators for program monitoring. By involving program beneficiaries in the development of indicators, program managers can ensure that the indicators are relevant, meaningful, and useful for measuring program performance. According to Porter & Goldman (2013) this also helps to build ownership and accountability among program beneficiaries, who become more invested in the success of the program.

For example, in the same sustainable agricultural project, program beneficiaries could be involved in developing indicators for measuring the adoption rate of sustainable practices, the

improvement in soil health, and the increase in income. By involving beneficiaries in this process, they become more invested in the success of the program and more likely to take ownership of their own progress towards achieving program objectives Charvat et al. (2018).

2.5 Data usage and Sustainability of Agricultural Project

Monitoring and Evaluation (M&E) data demand is crucial for enhancing the sustainability of agricultural products. M&E data demand involves the use of data to inform decision-making, improve project management, and enhance the sustainability of agricultural projects.

Globally, the literature reviewed indicates that M&E data demand is essential for enhancing the sustainability of agricultural products globally. The studies conducted in Uruguay, Argentina and Brazil all support this finding. The studies also highlight the importance of using M&E data to inform decision-making, improve project management, and enhance project sustainability. Micah & Luketero (2017) conducted a study on the impact of M&E data demand on the sustainability of agricultural products in Argentina. The study found that M&E data demand positively affects the sustainability of agricultural products. The study highlighted the importance of using M&E data to track project progress, identify project gaps, and inform decision-making. The study also emphasized the need for effective M&E practices to ensure the availability of reliable data for decision-making.

While the study conducted by Micah & Luketero (2017) provides valuable insights into the impact of M&E data demand on the sustainability of agricultural products in Argentina, there is a need for more studies that examine the long-term impact of M&E data demand on project sustainability. Additionally, there is a need for studies that evaluate the effectiveness of different M&E data demand practices in enhancing project sustainability in different agricultural contexts. In Africa, Muli, (2020) conducted a study and stated that the Sub-Saharan Africa region faces unique challenges in the agricultural sector, including climate change, food insecurity, and low

productivity. The literature reviewed demonstrates that M&E data demand can play a vital role in enhancing the sustainability of agricultural projects in the region. A study by Zaehring, Wambugu, Kiteme & Eckert, (2018) conducted in Kenya, Nigeria, and Ethiopia all provide evidence that M&E data demand can improve project management and decision-making, leading to improved project sustainability. According to Mangheni, et al. (2021), conducted a study on the impact of M&E data demand on the sustainability of agricultural products in Nigeria. The study found that M&E data demand positively affects the sustainability of agricultural products. The study highlighted the importance of using M&E data to identify project strengths and weaknesses, prioritize interventions, and enhance project sustainability. The study also emphasized the need for effective M&E practices to ensure the availability of reliable data for decision-making.

While the study conducted by Mangheni, et al. (2021) provides valuable insights into the impact of M&E data demand on the sustainability of agricultural products in Nigeria, there is a need for more studies that examine the effectiveness of different M&E data demand practices in enhancing project sustainability. Also, there is a need for more studies that explore the effectiveness of M&E data demand in different agricultural contexts and in addressing specific challenges in the Sub-Saharan Africa region. Additionally, the studies conducted in the region mostly focused on the short-term impact of M&E data demand, and there is a need for studies that evaluate the long-term impact of M&E data demand on project sustainability in the region. In Kenya, a study conducted by Odhiambo, Wakibia & Sakwa (2020) provides valuable insights into the impact of M&E data demand on the sustainability of agricultural products in the country. The study emphasizes the importance of using M&E data to track progress, measure impact, and adjust project strategies to achieve the desired results. The study also highlights the need for effective M&E practices to ensure the availability of reliable data for decision-making. Yami, et

al. (2019) conducted a study on the impact of M&E data demand on the sustainability of agricultural products in Kenya. The study found that M&E data demand positively affects the sustainability of agricultural products. The study emphasized the importance of using M&E data to track progress, measure impact, and adjust project strategies to achieve the desired results. The study also revealed that M&E data demand leads to better decision-making and project management. While the study conducted by Yami,et al. (2019) provides valuable insights into the impact of M&E data demand on the sustainability of agricultural products in Kenya, there is a need for more studies that examine the long-term impact of M&E data demand on project sustainability. Additionally, there is a need for studies that evaluate the effectiveness of different M&E data demand practices in enhancing project sustainability.

2.6 Summary and Research Gap

Variable	Author(s) (Year)	Title of the study	Findings	Knowledge gap
Capacity building	Loic (2018)	Capacity building and project sustainability in Ngozi Province, Burundi	Positive influence of capacity building and sustainability of projects	Limited focus on specific capacity building interventions, a lack of studies on the impact of M&E capacity building on smallholder farmers, limited focus on Sub-Saharan Africa, and a lack of studies on the role of technology in M&E capacity building
Routine Program Monitoring	Micah & Luketero, (2017)	Monitoring and evaluation systems and performance of	There is positive impact of routine monitoring program	Limited understanding of the effectiveness of routine program

		non-governmental based maternal health projects in Bungoma South Sub-County	on performance of Non-governmental organizations	monitoring in agribusiness projects and the potential barriers to its successful implementation in the Mt. Kenya Region
Data usage	Dong, Mitchell, Colquhoun, (2015)	Measuring farm sustainability using data envelope analysis with principal components: The case of Wisconsin cranberry.	Proper and accurate data is important for formulating policies that directs actions for sustainability of projects	Study did not specify how data usage in monitoring and evaluation can lead to sustainable agribusiness projects
Sustainability of agribusiness projects	Muli (2020)	Monitoring and Evaluation System, Leadership Competencies and Sustainability of Agricultural Projects Funded by Non-governmental Organizations in Bungoma County, Kenya	Monitoring and evaluation practices directly influences sustainability of agribusiness projects	Limited information on the relationship between elements of M&E on sustainability of agribusiness in Mt. Kenya region

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study aims to explore the monitoring and evaluation (M&E) practices used in agribusiness projects in the Mt. Kenya region, focusing on the F2F project as a case study. The study seeks to assess the sustainability of these projects by examining the F2F partner M&E frameworks, their effectiveness in measuring project outcomes, and their capacity to capture and incorporate feedback from stakeholders. It assessed the sustainability of projects by examining the stakeholders especially small holder farmers access to M&E, how they incorporate M&E into their day-to-day farming activities and their effectiveness in measuring project outcomes, and their capacity to capture and incorporate feedback. The research used a mixed-methods approach to collect and analyze data, including both qualitative and quantitative methods.

3.2 Research Design

This study employed descriptive survey research design. Descriptive research design is a type of research design that aims to explore causal relationships and understand the underlying reasons or mechanisms behind observed phenomena. It seeks to explain why certain events or phenomena occur by investigating the relationship between variables (Sileyew, 2019).

The study then adopted a mixed-method research design, which combines both quantitative and qualitative practices to gather and analyze data. This approach allows for a comprehensive and multi-dimensional understanding of the research topic (Sileyew, 2019). The quantitative method, using a survey questionnaire, provided numerical data on beneficiaries' perceptions and experiences with the project. On the other hand, the qualitative method, through in-depth interviews, captured nuanced insights, perspectives, and experiences from key informants and beneficiaries.

Through employing a mixed method, the study can triangulate the data, compare and integrate

findings from different sources, and gain a more holistic understanding of the sustainability of agribusiness projects. The quantitative and qualitative data will be analyzed separately and then integrated to provide a comprehensive overview of the project's impact, effectiveness, and efficiency. This approach enhances the validity and reliability of the study's findings and enables a more nuanced exploration of the complexities and dynamics involved in achieving project sustainability.

3.3 Research Site

The research site for this study is the Mt. Kenya region, which covers four counties, namely Nyeri, Kirinyaga, Embu, and Meru. The region is located in central Kenya and is known for its high agricultural productivity, particularly in horticulture, tea, coffee, and dairy farming.

The Mt. Kenya region is characterized by a humid and cool climate due to its proximity to the equator and its high altitude. The region experiences two rainy seasons, which support agricultural activities throughout the year. The region's topography is characterized by rolling hills, which provide suitable conditions for coffee and tea farming (Mutea et al. 2019)

The region is predominantly inhabited by smallholder farmers who depend on agriculture for their livelihoods. Most of the farmers cultivate small plots of land ranging from 0.5 to 5 acres, and they rely on rain-fed agriculture. The farmers face numerous challenges, including poor infrastructure, low access to markets, limited access to credit, and inadequate agricultural extension services.

The F2F agribusiness initiative is focused on improving the productivity and profitability of smallholder farmers in the Mt. Kenya region. Through the provision of training, mentorship, and market linkages, the project aims to enable farmers to produce high-quality and marketable agricultural products. It is implemented through a local non-governmental organization in collaboration with government agencies and international development partners.

The research site was chosen because of its high agricultural productivity and the presence of the F2F project. The F2F project provides a suitable case study to evaluate the effectiveness and sustainability of agribusiness projects in the region. The study findings will inform future project design, implementation, and management processes in the region and other similar contexts.

3.4 Target Population

The target population for this study areas the beneficiaries of the Farmer to Farmer (F2F) agribusiness project in the Mt. Kenya region. The F2F project aims to support smallholder farmers to enhance their agricultural productivity and profitability through training, mentoring, and linkages to markets. The project targets farmers in the counties of Nyeri, Kirinyaga, Embu, and Meru. The study focuses on a sample of beneficiaries who have participated in the F2F project for at least one year. The sample was selected using a stratified random sampling technique. The stratification was based on the counties and the type of crops grown by the beneficiaries. The study targeted a total of 12 senior program managers and data focal point personnel among the partners as well as 900 smallholder farmers.

Only beneficiaries who have been involved in the F2F project for at least one year participated in the study. Exclusion criteria of beneficiaries is those who had participated in the F2F project or have participated for less than one year.

Table 3.1: Target Population

Categories	Target Population
Fortune Sacco	146
Wega Dairy Cooperative Society	215
Siraji Sacco	230
Community and Progress Youth Empowerment Institute (CAP YEI)	72
BIMAS	84
Mt. Kenya Dairy Cooperative Society	153
Total	900

3.5 Study sample

The study will use census method for the implementing partners because the number of participants are considered small. However, for the small holder farmers, the study will use random sampling method to randomly sample 277 farmers using the formula below:

$$n = \frac{N}{1 + Ne^2}$$

Whereby: n = no. of samples

N = total population

e = error margin / margin of error (0.05)

$$n = \frac{900}{1 + (900 * 0.05^2)}$$

$$n = 277$$

This sampled size will be distributed through probability proportion to size as follows.

Table 3.1: Sample size and Sampling Procedure

Categories	Target Population	Sample Size
Fortune Sacco	146	45
Wega Dairy Cooperative Society	215	66
Siraji Sacco	230	71
Community and Progress Youth Empowerment Institute (CAP YEI)	72	22
BIMAS	84	26
Mt. Kenya Dairy Cooperative Society	153	47
Total	900	277

3.6 Data Collection

Data collection is the process of gathering information or data from various sources to help answer research questions or to inform decision-making (Asenahabi, 2019). It involves

systematically collecting and recording data through various methods such as surveys, interviews, experiments, observation, and document analysis.

3.6.1 Data Collection Instrument

The data collection for this study used two main instruments: a survey questionnaire and in-depth interview.

The survey questionnaire was designed to collect quantitative data on the beneficiaries' socio-demographic characteristics, agricultural practices, and the impact of the Farmer to Farmer (F2F) agribusiness project on their productivity and income. The questionnaire consisted of closed-ended questions, which were administered to the selected beneficiaries using face-to-face interviews. The questionnaire were be pre-tested to ensure its validity and reliability, and adjustments were made accordingly.

The in-depth interviews were designed to collect qualitative data on the key informants' perspectives on the management and implementation of the F2F project, its impact on the beneficiaries, and its sustainability. The interviews were conducted using a semi-structured interview guide, which allowed for probing and follow-up questions. The interviews were audio-recorded, transcribed, and analyzed thematically.

The data collection instruments were chosen to provide a comprehensive understanding of the research problem, using both quantitative and qualitative data. The survey questionnaire provided quantitative data on the beneficiaries' characteristics and the impact of the F2F project on their productivity and income. The in-depth interviews will provide qualitative data on the key informants' perspectives on the project implementation, and sustainability.

3.6.2 Pilot and Testing Of Research Instrument

Before the actual data collection, it is important to pilot and test the research instruments to ensure their validity and reliability. A pilot study is a small-scale trial run of the research

instruments on a small sample of the target population. The aim of the pilot study is to identify any errors or issues with the research instruments and make necessary adjustments before the actual data collection (Sileyew, 2019).

In this study, a pilot study was conducted on a sample of ten participants who are similar to the actual participants. The pilot study tested the survey questionnaire and in-depth interview guide to ensure that they are clear, comprehensive, and relevant to the research questions. The pilot study assessed the time required to complete the survey questionnaire and in-depth interview, as well as the participants' understanding of the questions. A pilot study was done with the non-beneficiaries of the project in the same region, a sample of 5 small holder farmers and 1 partner will be targeted. After the pilot study, adjustments was made to the research instruments based on the feedback received from the participants. The survey questionnaire and in-depth interview guide were revised to improve their validity and reliability. The research team also ensured that the revised research instruments are consistent with the study objectives and research questions. Once the research instruments have been revised, the final version was used for the actual data collection. The research team ensured that the data collection process adhered to ethical guidelines, including obtaining informed consent from the participants and ensuring their confidentiality and anonymity.

3.6.3 Instrument Reliability

Instrument reliability refers to the degree to which a research instrument consistently measures the same construct over time and across different conditions. In other words, it refers to the degree of consistency or stability in the measurement of a variable. Reliability is a crucial aspect of any research instrument, as it ensures that the results obtained from the instrument are consistent and can be replicated (Sileyew, 2019).

In this study, the reliability of the questionnaire and in-depth interview guide were assessed using

inter-rata reliability. Inter rata reliability is a measure of consistency or agreement between two or more observers who are independently rating or assessing the same set of data or participants (Sileyew, 2019). Inter rata reliability, two or more rata are given the same data or participants to assess the results compared to the level of agreement or consistency of the rata (Sileyew, 2019). In this study, inter-rata reliability was used during the pilot study, where 5 ratas were given IDI guide and assigned each participants and then results compared to determine the reliability of the instrument.

Table 3.3: Reliability Test Results Total number of items and the overall Cronbach

Research Variables	Items	Cronbach's Alpha
Capacity building in M&E	6	0.81
Routine Program Monitoring	6	0.76
Data usage	6	0.80
Performance of Non-Governmental Organizations	8	0.78
Total	26	0.89

Source: Author (2023)

3.6.4 Instrument Validity

Instrument validity refers to the degree to which a research instrument accurately measures the concept or construct it is intended to measure. Validity is a critical aspect of any research instrument, as it ensures that the results obtained from the instrument are accurate and can be used to draw valid conclusions.

In this study, the validity of the survey questionnaire and in-depth interview guide will be assessed using various techniques. One of the commonly used techniques for assessing instrument validity is content validity. Content validity refers to the extent to which the items in a research instrument represent the construct being measured. The research team ensured that the research instruments include items that are relevant to the research questions and objectives. Other techniques that were used to assess the validity of the research instruments include face

validity, criterion validity, and construct validity. Face validity refers to the extent to which the research instrument appears to measure the concept or construct it is intended to measure (Sileyew, 2019). Criterion validity involves comparing the scores obtained from the research instrument to scores obtained from another valid and reliable instrument that measures the same construct. Construct validity involves assessing the degree to which the research instrument measures the theoretical construct it is intended to measure. The instruments were disseminated to the participants by way of email or drop and pick later as per the agreement between the researcher and the respondents. The research experts and the university supervisors validated the instrument.

3.6.5 Data Collection Procedure

The data collection procedure for this study involved two main methods: survey questionnaire and in-depth interviews. The survey questionnaire were administered to a sample of project beneficiaries, while the in-depth interviews was conducted with key informants involved in the management and implementation of the project (Sileyew, 2019).

The survey questionnaire were designed to collect both quantitative and qualitative data on the project's monitoring and evaluation practices and sustainability. The questionnaire was pretested to ensure that the questions are clear, concise, and easy to understand. The questionnaire were administered to a sample of project beneficiaries using a stratified random sampling technique. The sampling procedure ensured that the sample representative of the project beneficiaries and that the data obtained is generalizable to the entire population.

The in-depth interviews were conducted with key informants involved in the management and implementation of the project. The interviews were designed to collect qualitative data on the monitoring and evaluation practices and sustainability of the project. The interview questions will be open-ended to allow the informants to provide detailed and insightful responses. The

informants were purposively selected based on their roles and responsibilities in the project. The selection of the informants ensured that the data obtained is comprehensive and covers all aspects of the project.

The data collection procedure was conducted in a professional and ethical manner. The research team obtained consent from all participants before administering the survey questionnaire or conducting the in-depth interviews. The participants were assured of their confidentiality, and their responses were kept anonymous. The research team also ensured that the data obtained is accurate and reliable by monitoring the data collection process and conducting quality checks on the collected data.

3.7 Data Analysis Techniques

In this study, quantitative data collected through the survey questionnaire was analyzed using statistical software, specifically SPSS (Statistical Package for the Social Sciences). SPSS is a widely used software tool that enables researchers to perform various statistical analyses, such as descriptive statistics, inferential statistics, and correlations. Through SPSS, the researchers will be able to examine patterns, trends, and relationships within the quantitative data, providing a quantitative assessment of the beneficiaries' perceptions, satisfaction levels, and the overall effectiveness and efficiency of the agribusiness project.

On the other hand, the qualitative data obtained from the in-depth interviews was analyzed using a qualitative approach. This approach involves identifying major themes and patterns that emerge from the interview transcripts. The researchers conducted a thorough analysis of the qualitative data to gain a comprehensive understanding of the monitoring and evaluation practices employed and sustainability of the agribusiness project. To aid in this qualitative analysis, Nvivo version 12 Plus software was used. Nvivo version 12 Plus is a qualitative data analysis software that allows researchers to organize, code, and categorize qualitative data

efficiently. It provides a systematic and structured approach to analyzing qualitative data, helping to identify key themes, extract meaningful insights, and draw conclusions from the interview data.

By employing both quantitative and qualitative analyses, the study gained a comprehensive and well-rounded understanding of the agribusiness project's monitoring and evaluation practices and its sustainability. The quantitative analysis through SPSS provided statistical evidence and quantitative indicators, while the qualitative analysis using Nvivo version 12 Plus captured the rich narratives, perspectives, and contextual factors that contribute to the project's sustainability. The integration of both types of analysis provided a comprehensive and nuanced view of the research topic, enhancing the validity and reliability of the study's findings. The study used a 95% confidence level and hence the p-value was at 0.05. Therefore, associations and relationships with p-value (0.05) and below were considered significant but relationship with p-value above 0.05 was considered insignificant. Tables were used to display the results. The study employed linear regression formula to get the correlation of the data. This was as follows, whereby

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where:

iv) Y = sustainability of agribusiness projects in Mt. Kenya region.

β_0 = Constant

β_1 - β_3 =Coefficients of determination

X_1 = Capacity building

X_2 =Routine program Monitoring

X_3 = Data usage

ε =Error term

The following null hypotheses and models were tested:

H01: There is no significant relationship between capacity building and sustainability of agribusiness projects in Mt. Kenya region.

Model: $Y = \beta_0 + \beta_1 X_1 + \varepsilon$. Where: Y is sustainability of agribusiness projects in Mt. Kenya region, X_1 is Capacity building, β_0 is Constant, β_1 is Beta coefficient for X_1 , ε is Error term.

H02: There is no significant relationship between Routine program Monitoring and sustainability of agribusiness projects in Mt. Kenya region

Model: $Y = \beta_0 + \beta_2 X_2 + \varepsilon$ where: Y is sustainability of agribusiness projects in Mt. Kenya region, X_2 is Routine program Monitoring, β_0 is constant, β_2 is beta coefficient for X_2 and ε is Error term

H03: There is no significant relationship between Data usage and sustainability of agribusiness projects in Mt. Kenya region

Model: $Y = \beta_0 + \beta_3 X_3 + \varepsilon$ where: Y is sustainability of agribusiness projects in Mt. Kenya region, X_3 is Data usage, β_0 is constant, β_3 is beta coefficient for X_3 and ε is Error term

Model: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ where: Y = sustainability of agribusiness projects in Mt. Kenya region, X_1 is Capacity building, X_2 is Routine program Monitoring, X_3 is Data usage, β_0 is Constant, β_1 , β_2 , β_3 , are beta coefficients for X_1 , X_2 , X_3 , respectively and ε is Error term

3.8 Legal and Ethical Considerations

The research team adhered to all legal and ethical considerations throughout the research process.

First the team ensured informed Consent were taken: All participants involved in the study provided informed consent before participating in the research (Asenahabi, 2019). The participants were informed about the purpose of the study, the data collection methods, the

expected time commitment, and the confidentiality and privacy of their data. The research team ensured that the participants' identities are kept anonymous and confidential. All personal information obtained from the participants were kept confidential and used only for the purposes of the study (Asenahabi, 2019).

The research team ensured that the data obtained from the participants is stored securely and protected against unauthorized access, loss, or damage. The research team ensured that the participants are treated with respect and dignity throughout the research process. The participants were not subjected to any harm, discomfort, or inconvenience.

The research team were sensitive to the cultural and social context of the research site. The research team ensured that the research methods and instruments are appropriate and culturally sensitive. Lastly the research team ensured that there is no conflict of interest that may affect the objectivity and credibility of the research findings.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

The aim of the current study was to establish how monitoring and evaluation practices influence sustainability of agribusiness projects in Mt. Kenya region a case of farmer-to-farmer program in Kirinyaga County. Data was collected using questionnaires and interview guide and was analyzed and presented in the current chapter. The findings are interpreted and discussed.

4.2 Response Rate

There were 277 questionnaires administered but only 270 were successfully filled and received back. 7 of them were not returned so giving a return rate of 97 % when computed and presented 3 % of not returned questionnaires as depicted in Table 4.1

Table 4.1 Questionnaire return rate

Responses	Frequency	Percent
Filled questionnaires	270	97
Unfilled questionnaires	7	3
Total	277	100

Data in Table 4.1 show that the return rate was 97% above 68% which is the required minimum response rate for reliable survey results. A high return rate increases the confidence that data accurately reflects the opinions of the vast majority of the respondents. As described in chapter three about the validity and reliability of the instrument, as a result, validity and reliability are improved.

4.3 Demographic Characteristics of the Respondents

The demographic characteristics of respondents included gender, highest education qualification and current occupation of the respondents as summarized in Table 4.2.

Table 4.2: Demographic Characteristics of Respondents

Gender	Frequency	Percentage (%)
Male	154	57.0
Female	116	43.0

Total	270	100
Age	Frequency	Percentage (%)
18-24	18	6.7
25-34	75	27.8
35-44	104	38.5
45-54	54	20.0
Above 55 years	19	7.0
Total	270	100
Education	Frequency	Percentage (%)
Primary Certificate	21	7.8
Secondary Certificate	56	20.7
Diploma Certificate	97	35.6
Undergraduate Degree	71	26.3
Master's Degree	25	9.3
Total	270	100
Your current occupation	Frequency	Percentage (%)
Farmer	59	21.9
Agribusiness owner	92	34.1
Agribusiness consultant	49	18.1
Government official	39	14.4
NGO Official	31	11.5
Total	270	100

4.3.1 Gender of the Respondents

The findings of data in Table 4.2 indicates that 154 (57.0%) were male and 116 (43.0%) respondents were female. It meant that gender was almost paired since two thirds were met therefore eradicating the gender biasness and sampling errors leading to greater validity of the findings.

4.3.2 Education of the Respondents

Table 4.2 shows that primary certificate were 21(7.8%), Secondary certificate 56 (20.7%), Diploma certificate 97(35.9%) and undergraduate degree 71(26.3%). While

Master's degree were 25(9.3%). All those who responded to the underneath questions had acquired a university degree and diploma certificates. This means that people who undertook the study were literate. The capacity to comprehend questions and provide answers highlights the value of literacy and education in data collection. The response rate and data validity was acquired.

4.3.3 Age category respondents

The respondents were of different ages. According to Table 4.2, those between 18-24 yrs were 18(6.7%) while 25- 34 years were 75 (27.8%), followed by 35-44 yrs who were actually the highest 109 (38.5%). Also 45-54 yrs had 54(20.0%) and lastly above 55yrs were 19(7.0%). Experience denotes that Sustainability of agribusiness projects in Mt. Kenya region depended wholly on proper trainings, agribusiness officers who train and facilitate their activities.

4.3.4 Current occupation

The respondents were asked to state the current occupation. According to Table 4.2, Farmers were 59(21.9%) while agribusiness owner 92 (34.1%), followed agribusiness consultant 49 (18.1%). Then the government officials 39(14.4%) and finally the NGO officials 31(11.5). The respondents had concrete information Sustainability of agribusiness projects in Mt. Kenya region depended wholly on proper project planning.

4.4 Sustainability of agribusiness projects in Mt. Kenya region

Sustainability of agribusiness projects in Mt. Kenya region was measured by production sustainability, food security, better farming practice, skilled staff, efficient communication channels and improved products.

4.4.1 Descriptive Data on sustainability of agribusiness projects in Mt. Kenya region

Eight line items were responded to as indicated in Table 4.3 on Sustainability of agribusiness projects in Mt. Kenya region

Table 4.3 SUSTAINABILITY OF AGRIBUSINESS PROJECTS IN MT. KENYA**REGION**

Statements	SD F %	D F %	N F %	A F %	SA F %	Mean	Std deviation
1. There is good production of products in the organization	30 (11.1%)	77 (28.5%)	19 (7.0%)	82 (30.4%)	62 (23.0%)	3.26	1.37
2. Sustainability is maintained even when the funders have terminated the projects	19 (7.0%)	73 (27.0%)	37 (13.7%)	86 (31.9%)	55 (20.4%)	3.31	1.26
3. Farmers have been trained on farm practices which have helped them to better their services	20 (7.4%)	90 (33.3%)	35 (13.0%)	86 (31.9%)	39 (14.4%)	3.13	1.23
4. There are improved agricultural productivity due to proper guidance of the agricultural officers	11 (4.1%)	54 (20.0%)	47 (17.4%)	105 (38.9%)	53 (19.6%)	3.50	1.13
5. The communication is efficient due to well organized channels from top to the lowest level	27 (10.0%)	86 (31.9%)	36 (13.3%)	65 (24.1%)	56 (20.7%)	3.14	1.33
6. Information is shared well amongst the staff members who implement it well and work on weak areas	14 (5.2%)	66 (24.4%)	33 (12.2%)	91 (33.7%)	66 (24.4%)	3.48	1.24
7. Famers are provided with funds whenever they need them so as to increase their activities in the farms	18 (6.7%)	78 (28.9%)	46 (17.0%)	72 (26.7%)	56 (20.7%)	3.26	1.26
8. There are well managed ways to keep food secure for consumption	17 (6.3%)	81 (30.0%)	28 (10.4%)	95 (35.2%)	49 (18.1%)	3.29	1.24
Overall composite mean and std Deviation						3.29	1.15

Statement (1) there is good production of products in the organization, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 30(11.1%) strongly disagreed, 77(28.5%) disagreed, 19(7.0%) neutral, 82(30.4%) agreed while 62(23.0%) strongly agreed. These result show that 3.26 was lower than the composite mean of 3.29. The implication of these results to the study is that many agreed that good production is brought about by good organization thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.37 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents

Statement (2) sustainability is maintained even when the funders have terminated the projects,

mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 19(7.0%) strongly disagreed, 73(27.0%) disagreed, 37(13.7%) neutral, 86(31.9%) agreed while 55(20.4%) strongly agreed. These result show that 3.31 was higher than the composite mean of 3.29. The implication of these results to the study is that majority were in agreement that good sustainability is maintained after the departure of the donor's thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.26 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents.

Statement (3) farmers have been trained on farm practices which have helped them to better their services, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 20(7.4%) strongly disagreed, 90(33.3%) disagreed, 35(13.0%) neutral, 86(31.9%) agreed while 39(14.4%) strongly agreed. These result show that 3.13 was lower than the composite mean of 3.29. The implication of these results to the study is that responses were almost at per in that famers have been trained hence influencing sustainability of agribusiness projects. The line item standard deviation of 1.23 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents

Statement (4) there are improved agricultural productivity due to proper guidance of the agricultural officers, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 11(4.1%) strongly disagreed, 54(20.0%) disagreed, 47(17.4%) neutral, 104(38.9%) agreed while 53(19.6%) strongly agreed. These result show that 3.50 was higher than the composite mean of 3.29. The implication of these results to the study is that many were in agreement agricultural officers do guide the famers effectively thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.13 is lower than the composite standard deviation of 1.15 indicating that there was a convergence opinion among the respondents

Statement (5) the communication is efficient due to well organized channels from top to the lowest level, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 27(10.0%) strongly disagreed, 86(31.9%) disagreed, 36(13.3%) neutral, 65(24.1%) agreed while 56(20.7%) strongly agreed. These result show that 3.14 was lower than the composite mean of 3.29. The implication of these results to the study is that there were converging results thus positively influencing sustainability of agribusiness projects. The line

item standard deviation of 1.33 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents

Statement (6) Information is shared well amongst the staff members who implement it well and work on weak areas, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 14(5.2%) strongly disagreed, 66(24.4%) disagreed, 33(12.2%) neutral, 91(33.7%) agreed while 66(24.4%) strongly agreed. These result show that 3.48 was higher than the composite mean of 3.29. The implication of these results to the study is that information is shared equally to all the stakeholders thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.24 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents.

Statement (7) famers are provided with funds whenever they need them so as to increase their activities in the farms, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 18(6.7%) strongly disagreed, 78(28.9%) disagreed, 46(26.7%) neutral, 72(26.7%) agreed while 56(20.7%) strongly agreed. These result show that 3.26 was lower than the composite mean of 3.29. The implication of these results to the study is that there was improved ways of providing funds hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.26 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents

Statement (8) there are managed ways to keep food secure for consumption, mean of 3.29 and standard deviation of 1.15. This result indicates that out of 270 respondents, 17(6.3%) strongly disagreed, 81(30.0%) disagreed, 28(10.4%) neutral, 95(35.2%) agreed while 49(18.1%) strongly agreed. These result show that 3.29 was at per with the composite mean of 3.29. The implication of these results to the study is that food security is well maintained where many agreed on the statement hence influencing sustainability of agribusiness projects. The line item standard deviation of 1.24 is higher than the composite standard deviation of 1.15 indicating that there was a divergence opinion among the respondents

4.5 Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya

Region

Capacity Building in M&E and Sustainability of Agribusiness Projects in Mt. Kenya region as measured using the following indicators which were training sessions conducted, staff trained on M&E, developing of M&E plans and reports aligned to program objective.

4.5.1 Descriptive Data on sustainability of agribusiness projects in Mt. Kenya region

Six line items were responded to as indicated in Table 4.4 on Sustainability of agribusiness projects in Mt. Kenya region

Table 4.4 Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya region do the same!

Statements	SD F %	D F %	N F %	A F %	SA F %	Mean	Std deviation
1. There are well trained personnel's in the organization	3 (1.1%)	45 (16.7%)	42 (15.6%)	103 (38.1%)	77 (28.5%)	3.76	1.07
2. Well organized M&E plans are presented to the officers in charge for quick reference	8 (3.0%)	51 (18.9%)	39 (14.4%)	98 (36.3%)	74 (27.4%)	3.66	1.15
3. Farmers have been given timely feedback by the officers who advise them about their farms	14 (5.2%)	58 (21.5%)	41 (15.2%)	94 (34.8%)	63 (23.3%)	3.50	1.20
4. There are frequent training sessions which enables famers to receive enough knowledge to utilize later	11 (4.1%)	48 (17.8%)	42 (15.6%)	97 (35.9%)	72 (26.7%)	3.63	1.17
5. Reports are documented in the right places for later use	6 (2.2%)	64 (23.7%)	41 (15.2%)	96 (35.6%)	63 (23.3%)	3.54	1.15
6. There is knowledgeable staff who have acquired knowledge and skills	13 (4.8%)	59 (21.9%)	56 (20.7%)	83 (30.7%)	59 (21.9%)	3.43	1.18
Overall composite mean and std Deviation						3.58	1.23

Statement (1) there are well trained personnel's in the organization, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 3(1.1%) strongly disagreed, 45(16.7%) disagreed, 42(15.6%) neutral, 103(38.1%) agreed while 77(28.5%) strongly agreed. These result show that 3.76 was higher than composite mean of 3.58. The implication of these results to the study is that good results are experienced due to well trained staff thus influencing

sustainability of agribusiness projects. The line item standard deviation of 1.07 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents

Statement (2) well organized M&E plans are presented to the officers in charge for quick reference, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 8(3.0%) strongly disagreed, 51(18.9%) disagreed, 39(14.4%) neutral, 98(36.3%) agreed while 74(27.4%) strongly agreed. These result show that 3.66 was higher than composite mean of 3.58. The implication of these results to the study is that the officers in charge receive organized M&E plans thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.15 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents.

Statement (3) farmers have been given timely feedback by the officers who advise them about their farms, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 14(5.2%) strongly disagreed, 58(21.5%) disagreed, 41(15.2%) neutral, 94(34.8%) agreed while 63(23.3%) strongly agreed. These result show that 3.50 was lower than composite mean of 3.58. The implication of these results to the study is that feedback back is shared immediately thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.20 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents.

Statement (4) there are frequent training sessions which enables famers to receive enough knowledge to utilize later, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 11(4.1%) strongly disagreed, 48(17.8%) disagreed, 42(15.6%) neutral, 97(35.9%) agreed while 72(26.7%) strongly agreed. These result show that 3.63 was higher than composite mean of 3.58. The implication of these results to the study is that famers are able to utilize knowledge acquired through trainings hence influencing sustainability of agribusiness projects. The line item standard deviation of 1.17 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents

Statement (5) reports are documented in the right places for later use, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 6(2.2%) strongly disagreed, 64(23.7%) disagreed, 41(15.2%) neutral, 96(35.6%) agreed while 63(23.3%) strongly agreed.

These result show that 3.54 was lower than composite mean of 3.58. The implication of these results to the study is that reports are utilized later thus positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.18 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents

Statement (6) there is knowledgeable staff who have acquired knowledge and skills, mean of 3.58 and standard deviation of 1.23. This result indicates that out of 270 respondents, 13(4.8%) strongly disagreed, 59(21.9%) disagreed, 56(20.7%) neutral, 83(30.7%) agreed while 59(21.9%) strongly agreed. These result show that 3.43 was l than composite mean of 3.58. The implication of these results to the study is that most staff members have acquired the right skills thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.18 is lower than the composite standard deviation of 1.23 indicating that there was a divergence opinion among the respondents

4.5.2 Inferential Statistics for Capacity building in M&E and sustainability of agribusiness projects in Mt. Kenya Region

Correlation between Capacity building on sustainability of agribusiness projects in Mt. Kenya Region was computed by means of Pearson`s correlational analyses and Table 4.5 shows the statistical outputs. The respondents at 95% level of confidence computed the total scores of the scale as a summation of the individual scores on each item. The correlation analysis results obtained are shown in Table 4.5

Table 4.5 Correlation between Capacity building in M&E and sustainability of agribusiness projects in Mt. Kenya Region

Variable	Statistics	Sustainability of agribusiness projects in Mt. Kenya Region
Capacity building	Pearson Correlation	0.063**
	Sig.(2-tailed)	0.030
	N	270

(n=270); **Correlation is significant at 0.05 level (2-tailed)

Going by the statistics on Table 4.5, the coefficient of correlation between capacity building and sustainability of agribusiness projects in Mt. Kenya was 0.063 given that p is 0.00 <0.05. It implies that capacity building has a weak positive relationship with sustainability of agribusiness

projects in Mt. Kenya. This led to the rejection of the null hypothesis, which stated that there is no significant relationship between capacity building and sustainability of agribusiness projects in Mt. Kenya. Evidence that is built from the findings in Table 4.5 leads to the admission that there exists significant relationship between capacity building and sustainability of agribusiness projects in Mt. Kenya since at 95% confidence interval, and the p-value of 0.030 is less than 0.05.

4.5.2.1 Model summary of Capacity building on sustainability of agribusiness projects in Mt. Kenya
 The model sought to determine how Capacity building as predictor significantly or insignificantly influenced sustainability of agribusiness projects in Mt. Kenya. Simple linear regression was adapted to investigate how Capacity building influences sustainability of agribusiness projects in Mt. Kenya. The regression model summary results are presented in Table 4.6.

Table 4.6: Regression Model Summary table of Capacity building on sustainability of agribusiness projects in Mt. Kenya

Model summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.304 ^a	0.115	0.113		0.46052

a. Predictor: (Constant), Capacity Building

ANOVA						
Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	0.229	1	0.229	1.078	0.030 ^b
	Residual	56.836	268	0.212		
	Total	57.065	269			

a. Capacity Building influences sustainability of agribusiness projects in Mt. Kenya

b. Predictors: (Constant), Capacity Building

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig. (p-value)
		B	Std. Error	Beta		
1	(Constant)	3.532	0.230		15.483	0.00

Capacity building	0.066	0.064	0.063	-1.038	0.030
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a. Independent Variable: Capacity building

The model summary in Table 4.6 designates that Capacity building predicted 11.5% variation in the sustainability of agribusiness projects in Mt. Kenya for $R^2 = 0.113$. Other factors explained the remaining balance of 88.5%. The ANOVA data designates that for $F=1.078$, capacity building was significant in estimating sustainability of agribusiness projects in Mt. Kenya since $p=0.030 < 0.05$. Thus, the model was fit in predicting dependent variable. The coefficient data designates that holding other factors constant, sustainability of agribusiness projects in Mt. Kenya would stand at 3.532. A unit rise in the capacity building would lead to 0.066 change in the sustainability of agribusiness projects in Mt. Kenya, given that other factors were held constant. The substituted model is:

The substituted model is Model: $Y = 3.532 + 0.066X_1 + \varepsilon$ where,

Y = Sustainability of agribusiness projects in Mt. Kenya

X_1 = Capacity Building

ε = Error term.

4.5.3 Qualitative Data on Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya.

When the input from the interview guide was analyzed, it was found that the sustainability of agribusiness initiatives in the Mt. Kenya region is influenced by capacity building in M&E. This aided in supplying the farmers and partners with the appropriate M&E knowledge and skills for use in their businesses and farms. Here is an overview of the qualitative response:

“As an organization, we are able to acquire knowledge and insight on how to set up an M&E system, resources required and enabled us to be more involved in decision making process”.

4.5.4. Discussion on Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya

It is evident from the descriptive and correlational data that Capacity building in M&E had a significant contribution to sustainability of agribusiness projects in Mt. Kenya. The findings are in line with the findings from past related empirical studies that Capacity building in M&E has significant influence on sustainability of agribusiness projects in Mt. Kenya Riwasino & Kerua (2020), Kiptot & Franzel (2019). The findings are also in line with Theory of change that provides a systematic framework for understanding how interventions lead to desired outcomes

by mapping the causal pathways and assumptions underlying a program or project (Oberč & Arroyo Schnell, 2020).

4.6 Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya Region

Routine Program Monitoring and Sustainability of Agribusiness Projects in Mt. Kenya region as measured using the following indicators which were beneficiaries able to develop data collection tools, beneficiaries developed indicators for program monitoring, frequency of data collection for specific program activities.

4.6.1 Descriptive Data on Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya region

Six line items were responded to as indicated in Table 4.7 Routine Program Monitoring on Sustainability of agribusiness projects in Mt. Kenya region

Table 4.7 Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya region

SD	D	N	A	SA	
F	F	F	F	F	Std

Statements	%	%	%	%	%	Mean	deviation
1. The staff is well trained as per the organization of the project activities	23 (8.5%)	54 (20.0%)	32 (11.9%)	95 (35.2%)	66 (24.4%)	3.47	1.28
2. The staff members are able to develop data collection tools	10 (3.7%)	54 (20.0%)	33 (12.2%)	100 (37.0%)	73 (27.0%)	3.64	1.18
3. Projects indicators were well framed as per the objectives	8 (3.0%)	49 (18.1%)	54 (20.0%)	85 (31.5%)	74 (27.4%)	3.62	1.15
4. Data collected is sufficient for analyzing and sharing feedback to all the stakeholders	20 (7.4%)	70 (25.9%)	49 (18.1%)	88 (32.6%)	43 (15.9%)	3.24	1.21
5. There were good indicators developed for the programme	14 (5.2%)	65 (24.1%)	19 (7.0%)	90 (33.3%)	82 (30.4%)	3.60	1.28
6. All the data collected and analyzed is disseminated to all the parties involved in farmers activities	11 (4.1%)	49 (18.1%)	36 (13.3%)	108 (40.0%)	66 (24.4%)	3.63	1.15
Overall composite mean and std Deviation						3.53	1.18

Statement (1) the staff is well trained as per the organization of the project activities, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 23(8.5%) strongly disagreed, 54(20.0%) disagreed, 32(11.9%) neutral, 95(35.2%) agreed while 66(24.4%) strongly agreed. These result show that 3.47 was lower than composite mean of 3.53. The implication of these results to the study is that most staff members have acquired the right skills thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.28 is lower than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (2) the staff members are able to develop data collection tools, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 10(3.7%) strongly disagreed, 54(20.0%) disagreed, 33(12.2%) neutral, 100(37.0%) agreed while 73(27.0%) strongly agreed. These result show that 3.64 was higher than composite mean of 3.53. The implication of these results to the study is that most staff members are able to develop data collections tools comfortably thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.18 is at per with the composite standard deviation of 1.18 indicating

that there was a convergence opinion among the respondents

Statement (3) projects indicators were well framed as per the objectives, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 23(8.5%) strongly disagreed, 54(20.0%) disagreed, 32(11.9%) neutral, 95(35.2%) agreed while 66(24.4%) strongly agreed. These result show that 3.47 was lower than composite mean of 3.53. The implication of these results to the study is that most staff members have acquired the right skills thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.28 is lower than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (4) data collected is sufficient for analyzing and sharing feedback to all the stakeholders, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 20(7.4%) strongly disagreed, 70(25.9%) disagreed, 49(18.1%) neutral, 88(32.6%) agreed while 43(15.9%) strongly agreed. These result show that 3.24 was lower than composite mean of 3.53. The implication of these results to the study is that most data collected is utilized in future thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.21 is higher than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (5) there were good indicators developed for the programme, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 14(5.2%) strongly disagreed, 65(24.1%) disagreed, 19(7.0%) neutral, 90(33.3%) agreed while 82(30.4%) strongly agreed. These result show that 3.60 was higher than composite mean of 3.53. The implication of these results to the study is that program indicators are better for the projects thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.28 is higher than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (6) all the data collected and analyzed is disseminated to all the parties involved in farmer's activities, mean of 3.53 and standard deviation of 1.18. This result indicates that out of 270 respondents, 11(4.1%) strongly disagreed, 49(18.1%) disagreed, 36(13.3%) neutral, 108(40.0%) agreed while 66(24.4%) strongly agreed. These result show that 3.63 was higher than composite mean of 3.53. The implication of these results to the study is that data collected is analyzed and disseminated thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.15 is lower than the composite standard deviation of 1.18 indicating

that there was a divergence opinion among the respondents

4.6.2 Inferential Statistics for Routine Program Monitoring and sustainability of agribusiness projects in Mt. Kenya Region

Correlation between Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya Region was computed by means of Pearson`s correlational analyses and Table 4.8 shows the statistical outputs. The respondents at 95% level of confidence computed the total scores of the scale as a summation of the individual scores on each item. The correlation analysis results obtained are shown in Table 4.8

Table 4.8 Correlation between Routine Program Monitoring and sustainability of agribusiness projects in Mt. Kenya Region

Variable	Statistics	Sustainability of agribusiness projects in Mt. Kenya Region
Routine Program Monitoring	Pearson Correlation	0.019**
	Sig.(2-tailed)	0.050
	N	270

(n=270); **Correlation is significant at 0.05 level (2-tailed)

Going by the statistics on Table 4.8, the coefficient of correlation between Routine Program Monitoring and sustainability of agribusiness projects in Mt. Kenya was 0.019 given that p is $0.050 < 0.05$. It implies that capacity building has a moderate positive relationship with sustainability of agribusiness projects in Mt. Kenya. This led to the rejection of the null hypothesis, which stated that there is no significant relationship between Routine Program Monitoring and sustainability of agribusiness projects in Mt. Kenya. Evidence that is built from the findings in Table 4.8 leads to the admission that there exists significant relationship between Routine Program Monitoring and sustainability of agribusiness projects in Mt. Kenya since at 95% confidence interval, and the p -value of 0.000 is less than 0.05.

4.5.2.1 Model summary of Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya

The model sought to determine how Routine Program Monitoring as predictor significantly or

insignificantly influenced sustainability of agribusiness projects in Mt. Kenya. Simple linear regression was adapted to investigate how Routine Program Monitoring influences sustainability of agribusiness projects in Mt. Kenya. The regression model summary results are presented in Table 4.9.

Table 4.9: Regression Model Summary table of Capacity building on sustainability of agribusiness projects in Mt. Kenya

Model summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.419 ^a	0.175	0.174		0.46136
b. Predictor: (Constant), Capacity Building					

ANOVA						
Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	11.021	1	11.021	5.509	0.054 ^b
	Residual	61.203	268	0.213		
	Total	72.421	269			

a. Routine Program Monitoring influences sustainability of agribusiness projects in Mt. Kenya

b. Predictors: (Constant), Routine Program Monitoring
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig. (p-value)
		B	Std. Error	Beta		
1	(Constant)	3.362	0.214		15.687	0.00
	Routine Program Monitoring	0.066	0.060	0.194	5.963	0.054

b. Independent Variable: Routine Program Monitoring

The model summary in Table 4.9 designates that Routine Program Monitoring predicted 17.5% variation in the sustainability of agribusiness projects in Mt. Kenya for $R^2 = 0.174$. Other factors explained the remaining balance of 82.5%. The ANOVA data designates that for $F=1.078$, Routine Program Monitoring was significant in estimating sustainability of agribusiness projects in Mt. Kenya since $p=0.050 < 0.05$. Thus, the model was fit in predicting dependent variable. The coefficient data designates that holding other factors constant, sustainability of agribusiness projects in Mt. Kenya would stand at 3.362. A unit rise in the Routine Program Monitoring would

lead to 3.362 change in the sustainability of agribusiness projects in Mt. Kenya, given that other factors were held constant. The substituted model is:

The substituted model is Model: $Y = 3.362 + 0.066X_1 + \varepsilon$ where,

Y = Sustainability of agribusiness projects in Mt. Kenya

X_1 = Routine Program Monitoring

ε = Error term.

4.6.3 Qualitative Data on Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya.

Once the feedback from the interview guide were analyzed, it was discovered that routine program monitoring influences the sustainability of agribusiness projects in Mt. Kenya region. This helped the partners and small holder farmers ensure that their program meeting their objectives, identify emerging issues and improve program design. The qualitative responses are summarized:

“By collecting data on a regular basis, we were able to identify several gaps in our programming most importantly areas that were not going according to anticipated work plan. This enabled us to make major adjustments to our work plan”.

4.6.4 Discussion on Qualitative Data on Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya.

It is evident from the descriptive and correlational data that routine Program Monitoring had a significant contribution to sustainability of agribusiness projects in Mt. Kenya. The findings are in line with the findings from past related empirical studies that routine Program Monitoring has significant influence on and sustainability of agribusiness projects in Mt. Kenya (Yami et al. 2019).

The findings are also in line with Theory of sustainable development that theory posits that economic growth, social well-being, and environmental protection are interconnected and must be considered together to achieve long-term sustainability

4.7 Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya Region

Data usage in monitoring and evaluation and Sustainability of Agribusiness Projects in Mt. Kenya region as measured using the following indicators which decision making, communication channels, and utilization of reports and dissemination of M&E findings

4.7.1 Descriptive Data on Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya region

Six line items were responded to as indicated in Table 4.10 Data usage in monitoring and evaluation on Sustainability of agribusiness projects in Mt. Kenya region.

Table 4.10 Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya region

Statements	SD F %	D F %	N F %	A F %	SA F %	Mean	Std deviation
1. Decision are made by all the stakeholders who are in the project	23 (8.5%)	62 (23.0%)	37 (13.7%)	91 (33.7%)	57 (21.1%)	3.36	1.27
2. There are proper communication channels in communicating information to all members	16 (5.9%)	43 (15.9%)	17 (6.3%)	109 (40.4%)	85 (31.5%)	3.76	1.22
3. Once the information is shared it is utilized in making corrective decisions	24 (8.9%)	59 (21.9%)	39 (14.4%)	95 (35.2%)	53 (19.6%)	3.35	1.26
4. Reports are documented as per the organizations requirements	11 (4.1%)	47 (17.4%)	50 (18.5%)	89 (30.0%)	73 (27.0%)	3.61	1.17
5. The findings are shared to key stakeholders only	10 (3.7%)	47 (17.4%)	32 (11.9%)	95 (35.2%)	86 (31.9%)	3.74	1.18
6. Not all the stakeholders are involved in decision making	17 (6.3%)	58 (21.5%)	21 (7.8%)	94 (34.8%)	80 (29.6%)	3.60	1.28
Overall composite mean and std Deviation						3.56	1.19

Statement (1) decision are made by all the stakeholders who are in the project, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 23(8.5%) strongly

disagreed, 62(23.0%) disagreed, 37(13.7%) neutral, 91(33.7%) agreed while 57(21.1%) strongly agreed. These result show that 3.36 was lower than composite mean of 3.56. The implication of these results to the study is that decisions are made by all the stakeholders hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.15 is lower than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (2) there are proper communication channels in communicating information to all members, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 16(5.9%) strongly disagreed, 43(15.9%) disagreed, 17(6.3%) neutral, 109(40.4%) agreed while 85(31.5%) strongly agreed. These result show that 3.76 was higher than composite mean of 3.56. The implication of these results to the study is that communications are well organized thus influencing sustainability of agribusiness projects. The line item standard deviation of 1.22 is higher than the composite standard deviation of 1.18 indicating that there was a convergence opinion among the respondents

Statement (3) once the information is shared it is utilized in making corrective decisions, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 24(8.9%) strongly disagreed, 59(21.9%) disagreed, 39(14.4%) neutral, 95(35.2%) agreed while 53(19.6%) strongly agreed. These result show that 3.35 was lower than composite mean of 3.56. The implication of these results to the study is that decisions are made by all the stakeholders hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.26 is lower than the composite standard deviation of 1.18 indicating that there was a convergence.

Statement (4) reports are documented as per the organizations requirements, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 11(4.1%) strongly disagreed, 47(17.4%) disagreed, 50(18.5%) neutral, 89(30.0%) agreed while 73(27.0%) strongly agreed. These result show that 3.61 was higher than composite mean of 3.56. The implication of these results to the study is that proper records are kept for future use hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.17 is lower than the composite standard deviation of 1.18 indicating that there was a divergence.

Statement (5) the findings are shared to key stakeholders only, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 10(3.7%) strongly disagreed, 47(17.4%) disagreed, 32(11.9%) neutral, 95(35.2%) agreed while 86(31.9%) strongly agreed.

These result show that 3.74 was higher than composite mean of 3.56. The implication of these results to the study is that findings are shared to all stakeholders hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.18 is at per with the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents

Statement (6) not all the stakeholders are involved in decision making, mean of 3.56 and standard deviation of 1.19. This result indicates that out of 270 respondents, 17(6.3%) strongly disagreed, 58(21.5%) disagreed, 21(7.8%) neutral, 94(34.8%) agreed while 80(29.6%) strongly agreed. These result show that 3.60 was higher than composite mean of 3.56. The implication of these results to the study is that decisions are made by all the stakeholders hence positively influencing sustainability of agribusiness projects. The line item standard deviation of 1.19 is higher than the composite standard deviation of 1.18 indicating that there was a divergence opinion among the respondents.

4.7.2 Inferential Statistics for Data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya Region

Correlation between Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya Region was computed by means of Pearson`s correlational analyses and Table 4.11 shows the statistical outputs. The respondents at 95% level of confidence computed the total scores of the scale as a summation of the individual scores on each item. The correlation analysis results obtained are shown in Table 4.11

Table 4.11 Correlation between Data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya Region

Variable	Statistics	Sustainability of agribusiness projects in Mt. Kenya Region
Data usage in monitoring and evaluation	Pearson Correlation	0.092**
	Sig.(2-tailed)	0.031
	N	270

(n=270); **Correlation is significant at 0.05 level (2-tailed)

Going by the statistics on Table 4.11, the coefficient of correlation between Data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya was 0.394 given that p is 0.031 <0.05. It implies that Data usage in monitoring and evaluation has a weak

positive relationship with sustainability of agribusiness projects in Mt. Kenya. This led to the rejection of the null hypothesis, which stated that there is no significant relationship between Data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya. Evidence that is built from the findings in Table 4.5 leads to the admission that there exists significant relationship between Data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya since at 95% confidence interval, and the p-value of 0.00 is less than 0.05.

4.5.2.1 Model summary of Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya

The model sought to determine how Data usage in monitoring and evaluation as predictor significantly or insignificantly influenced sustainability of agribusiness projects in Mt. Kenya. Simple linear regression was adapted to investigate how Data usage in monitoring and evaluation influences sustainability of agribusiness projects in Mt. Kenya. The regression model summary results are presented in Table 4.12.

Table 4.12: Regression Model Summary table of Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya

Model summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	0.363 ^a	0.131	0.130		0.46052	
c. Predictor: (Constant), Data usage in monitoring and evaluation						
ANOVA						
Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	0.229	1	0.229	1.078	0.031 ^b
	Residual	56.836	268	0.212		
	Total	57.065	269			

Data usage in monitoring and evaluation influences sustainability of agribusiness projects in Mt. Kenya

b. Predictors: (Constant), Data usage in monitoring and evaluation

Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig (p-value)
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		B	Std. Error	Beta		
	(Constant)	3.532	0.230		15.348	0.00
1	Data usage in monitoring and evaluation	0.066	0.064	0.063	-1.038	0.031

Independent Variable: Data usage in monitoring and evaluation The model summary in Table 4.12 designates that Data usage in monitoring and evaluation predicted 13.1% variation in the sustainability of agribusiness projects in Mt. Kenya for $R^2 = 0.130$ Other factors explained the remaining balance of 86.9%. The ANOVA data designates that for $F=1.078$, Data usage in monitoring and evaluation was significant in estimating sustainability of agribusiness projects in Mt. Kenya since $p=0.031 < 0.05$. Thus, the model was fit in predicting dependent variable. The coefficient data designates that holding other factors constant, sustainability of agribusiness projects in Mt. Kenya would stand at 3.532. A unit rise in the Data usage in monitoring and evaluation would lead to 0.066 change in the sustainability of agribusiness projects in Mt. Kenya, given that other factors were held constant. The substituted model is:

The substituted model is Model: $Y = 3.532 + 0.066X_1 + \varepsilon$ where,

Y = Sustainability of agribusiness projects in Mt. Kenya

X_1 = Data usage in monitoring and evaluation

ε = Error term.

4.7.3 Qualitative Data on Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya.

Analysis of the interview guide's comments revealed that data consumption has an impact on the viability of agricultural activities in the Mount Kenya region. The partners were then able to ascertain the needs of the company as well as the small-holder farmers. Advancement and the capacity to make well-informed decisions based on the facts gained were made possible thanks to the data collected and examined. Here is an illustration of a qualitative response:

“We were able to realize that some decisions made were contrary to what As an organization, we are able to acquire knowledge and insight on how to set up an M&E system, resources required and enabled us to be more involved in decision making process”.

4.7.4. Discussion on data usage on sustainability of agribusiness projects in Mt. Kenya

It is evident from the descriptive and correlational data usage had a significant contribution to sustainability of agribusiness projects in Mt. Kenya. The findings are in line with the findings from past related empirical studies that data usage has significant influence on sustainability of agribusiness projects in Mt. Kenya Mangheni, et al. (2021), The findings are also in line with findings by Zaehringer, Wambugu, Kiteme & Eckert, (2018) where there is evidence that the demand for M&E data can enhance project management and decision-making, improving project sustainability. The results also support the Theory of Change since they outline the anticipated outcomes and the monitoring and evaluation (M&E) indicators that must be used to plan and carry out M&E activities. It aids in the identification of the main agents of change and the vital routes for achieving sustainability by project participants. (Dinesh et al. 2021).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

In the current chapter, the findings from the data analysis is presented in summary form. Other components in this chapter includes the conclusions from the findings, recommendations and possible areas for future studies.

5.2 Summary of Findings

The findings are hereby summarized based on the research objectives.

5.2.1 Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya region

The descriptive analysis revealed that the overall composite mean for the six items was 3.58 and standard deviation of 1.23 which implied that most of the respondents agreed that capacity building increased sustainability of agribusiness projects in Mt. Kenya region. The correlation coefficient was 0.063 which implied that capacity building had a weak positive relationship with sustainability of agribusiness projects in Mt. Kenya region ($p=0.030 < 0.05$). This led to the rejection of the null hypothesis because there was strong evidence to conclude that capacity building has a significant influence on sustainability of agribusiness projects in Mt. Kenya region. The findings are in line with the findings from past related empirical studies that capacity building has significant influence on and sustainability of agribusiness projects in Mt. Kenya region

5.2.2 Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya region

The descriptive analysis revealed that the overall composite mean for the five items was 3.53 and standard deviation of 1.18, which implied that most of the respondents agreed that Routine Program Monitoring influenced sustainability of agribusiness projects in Mt. Kenya region. The correlation coefficient was 0.091 which implied that Routine Program Monitoring had a weak

positive relationship with sustainability of agribusiness projects in Mt. Kenya region ($p=0.050 < 0.05$). This led to the rejection of the null hypothesis because there was strong evidence to conclude that Routine Program Monitoring has a significant influence on sustainability of agribusiness projects in Mt. Kenya region. The findings are in line with the findings from past related empirical studies that Routine Program Monitoring have significant influence on sustainability of agribusiness projects in Mt. Kenya region

5.2.3 Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya region

The descriptive analysis revealed that the overall composite mean for the five items was 3.56 and standard deviation of 1.19, which implied that most of the respondents agreed that data usage in monitoring and evaluation and sustainability of agribusiness projects in Mt. Kenya region. The correlation coefficient was 0.092 which implied that data usage in monitoring and evaluation had a weak positive relationship with sustainability of agribusiness projects in Mt. Kenya region ($p=0.031 < 0.05$). This led to the rejection of the null hypothesis because there was strong evidence to conclude that data usage in monitoring and evaluation have a significant influence on sustainability of agribusiness projects in Mt. Kenya region. The findings are in line with the findings from past related empirical studies that data usage in monitoring and evaluation has significant influence on and sustainability of agribusiness projects in Mt. Kenya region

5.3 Conclusions from the Findings

In the first objective, the study established that capacity building had an influence on the sustainability of agribusiness projects in Mt. Kenya region, Kenya. The findings generated from both descriptive and inferential analysis leads to the conclusion that capacity has significant had an influence on the sustainability of agribusiness projects in Mt. Kenya region.

Second objective, to establish the influence of Routine Program Monitoring on sustainability of

agribusiness projects in Mt. Kenya region. The findings generated from both descriptive and inferential analysis leads to the conclusion that Routine Program Monitoring have significant influence sustainability of agribusiness projects in Mt. Kenya region

The third objective, to establish the influence of data usage in monitoring and evaluation on the sustainability of agribusiness projects in Mt. Kenya region. The findings generated from both descriptive and inferential analysis leads to the conclusion that data usage in monitoring and evaluation have significant influence sustainability of agribusiness projects in Mt. Kenya region

5.4 Recommendations from the Findings

The following recommendations are based from the findings and conclusions of the study.

5.4.1 Recommendation for Practice

Top senior management and cooperative officers can help to improve on the practices of capacity building, Routine Program Monitoring and data usage in monitoring and evaluation of resources through alignment of project needs for good productivity and performance of dairy projects.

5.4.2 Recommendation for Policy

National and County government's needs to formulate policies and laws that govern farmers and the services to the community in order to be able produce high yields in their farms which are in high demand. There is need for government to come up with a policy on how to enforce regulation of minimum prices of farm produce. The dairy sector is very important for nutritional value in the society and it is equally delicate due to its perishable nature; deliberate efforts by government at all levels and cooperative unions need to be put to make sure the sectors supports health of the society. Farmers face a lot of challenges as a results of unstable feeds prices, there's need for government to come up with a policy that can cushion farmers. The need to support farmers own production.

5.4.3 Recommendation for Methodology

Future methodologies need to take this into account in order to learn more about how the variables interact holistically. Future methodologies must also triangulate various approaches to capacity building, Routine Program Monitoring, and data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya region.

5.5 Suggestions for Further Study

The current study recommends more studies to be carried out on the areas, which were not included in the current study like dissemination of results, data analysis, and institutional strategies, which are in line with the steps of organizational strategies.

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Appendices

Appendix I: Questionnaire for Small holder farmers and clients

This survey is conducted to assess how monitoring and evaluation (M&E) capacity building affects sustainability of agribusiness projects. We also aim to examine how monitoring and evaluation data demand affects sustainability of agribusiness projects and to identify how Monitoring and Evaluation Data Utility influences sustainability in agribusiness projects. Please answer the questions as accurately as possible. Your responses will be kept confidential and used for research purposes only. Please indicate your response by marking the appropriate area or filling in your responses in the blank spaces that have been provided. This study is for the purpose of an academic exercise and all information collected from respondents will be treated with the utmost strict confidentiality.

SECTION A: Demographic information

1. Kindly indicate your gender?
 - i Male ()
 - ii Female ()
2. Kindly indicate your age bracket
 - i 18-24 years ()
 - ii 25-34 Years ()
 - iii 35-44 Years ()
 - iv 45-54 years ()
 - v Above 55 Years ()
3. Kindly indicate your level of education qualification
 - i Primary Certificate ()
 - ii Secondary school Certificate ()
 - iii Diploma ()
 - iv University Degree ()
 - v Masters ()
4. Kindly indicate your current occupation
 - i Farmer ()
 - ii Agribusiness owner ()
 - iii Agribusiness consultant ()
 - iv Government official ()
 - v NGO official ()

SUSTAINABILITY OF AGRIBUSINESS PROJECTS IN MT. KENYA REGION

Using the scale provided, kindly indicate extent to which you disagree or agree with the following statement as relating to Sustainability of Agribusiness Projects in Mt. Kenya region. This was guided by the following indicators under this variable; production sustainability, food security, better farming practice, skilled staff, efficient communication channels and improved products. They are stated in a likert scale where; 1- Strongly disagree (SD), 2- Disagree (D), 3- Neutral (N), 4-Agree (A), 5-Strongly Agree (SA).

SUSTAINABILITY OF AGRIBUSINESS PROJECTS IN MT. KENYA REGION

Statements (Sustainability of Agribusiness Projects)	SD(1)	D(2)	N(3)	A(4)	SA(5)
1. There is good production of products in the organization					
2. Sustainability is maintained even when the funders have terminated the projects					
3. Farmers have been trained on farm practices which have helped them to better their services					
4. There are improved agricultural productivity due to proper guidance of the agricultural officers					
5. The communication is efficient due to well organized channels from top to the lowest level					
6. Information is shared well amongst the staff members who implement it well and work on weak areas					
7. Farmers are provided with funds whenever they need them so as to increase their activities in the farms					
8. There are well managed ways to keep food secure for consumption					

Capacity building in M&E on sustainability of agribusiness projects in Mt. Kenya Region

Using the scale provided, kindly indicate extent to which you disagree or agree with the following statement as relating to Capacity Building in M&E and Sustainability of Agribusiness

Projects in Mt. Kenya region. This study was guided by the following indicators under this variable which were training sessions conducted, staff trained on M&E, developing of M&E plans and reports aligned to program objectives. They are stated in a likert scale where; 1- Strongly disagree (SD), 2- Disagree (D), 3-Neutral (N), 4-Agree (A), 5-Strongly Agree (SA).

Statements (Capacity building in M&E)	SD(1)	D(2)	N(3)	A(4)	SA(5)
1. There are well trained personnel in the organization					
2. Well organized M&E plans are presented to the officers in charge for quick reference					
3. Farmers have been given timely feedback by the officers who advise them about their farms					
4. There are frequent training sessions which enables farmers to receive enough knowledge to utilize later					
5. Reports are documented in the right places for later use					
6. There is knowledgeable staff who have acquired knowledge and skills					

Routine Program Monitoring on sustainability of agribusiness projects in Mt. Kenya Region

Using the scale provided, kindly indicate extent to which you disagree or agree with the following statement as relating to routine program and Sustainability of Agribusiness Projects in Mt. Kenya region. This study was guided by the following indicators under this variable which were beneficiaries able to develop data collection tools, beneficiaries developed indicators for program monitoring, frequency of data collection for specific program activities. They are stated in a likert scale where; 1- Strongly disagree (SD), 2- Disagree (D), 3-Neutral (N), 4-Agree (A), 5-Strongly Agree (SA).

Statements (Routine Program Monitoring)	SD(1)	D(2)	N(3)	A(4)	SA(5)
1. The staff is well trained as per the organization of the project activities					
2. The staff members are able to develop data collection tools					

3. Projects indicators were well framed as per the objectives					
4. Data collected in sufficient for analyzing and sharing feedback to all the stakeholders					
5. There were good indicators developed for the programme					
6. All the data collected and analyzed is disseminated to all the parties involved in farmers activities					

Data usage in monitoring and evaluation on sustainability of agribusiness projects in Mt. Kenya Region

Using the scale provided, kindly indicate extent to which you disagree or agree with the following statement as relating to data usage in monitoring and evaluation on Sustainability of Agribusiness Projects in Mt. Kenya region. This study was guided by the following indicators under these variable decision making, communication channels, and utilization of reports and dissemination of M&E findings. They are stated in a likert scale where; 1- Strongly disagree (SD), 2- Disagree (D), 3-Neutral (N), 4-Agree (A), 5-Strongly Agree (SA).

Statements (Routine Program Monitoring)	SD(1)	D(2)	N(3)	A(4)	SA(5)
1. Decision are made by all the stakeholders who are in the project					
2. There are proper communication channels in communicating information to all members					
3. Once the information is shared it is utilized in making corrective decisions					
4. Reports are documented as per the organizations requirements					
5. The findings are shared to key stakeholders only					
6. Not all the stakeholders are involved in decision making					

Appendix II KII Interview guide

Can you tell me about your experience with the program aimed at smallholder farmers?

May I ask if you have received any training or support related to monitoring and evaluation?

In your opinion, how important is monitoring and evaluation to the success of smallholder farming programs?

Can you tell me about any data collection or monitoring efforts that have been conducted on your farm?

Have you developed any data collection tools or indicators to track progress on your farm?

In your opinion, how effective has the program been in supporting your ability to develop data collection tools and indicators?

Have you seen any changes or improvements on your farm as a result of the program?

What challenges, if any, have you faced in participating in data collection or monitoring efforts?

Do you have any suggestions on how to improve monitoring and evaluation efforts for smallholder farming programs?

Would you like to add anything else about your experience with the program?

Appendix III. Project Schedule

Project Name: Agribusiness Sustainability Initiative

Project Start Date: December 1, 2022

Project End Date: June 5, 2023

Phase 1: Planning

Duration: 2 weeks (Dec 1-14)

Activities:

Identify project objectives and goals

Determine project scope and deliverables

Identify project stakeholders and their roles and responsibilities

Develop project budget and allocate resources

Create project schedule

Phase 2: Research

Duration: 4 weeks (Dec 15 – Jan 14)

Activities:

Conduct literature review on M&E capacity building, data demand, and utility in agribusiness

Conduct interviews with agribusiness experts and practitioners

Analyze research data and develop findings

Phase 3: Design

Duration: 4 weeks (Jan 16 – Feb 15)

Activities:

Develop survey questionnaire and IDI guide based on research findings

Pilot test survey and IDI with a small sample of agribusiness practitioners

Revise survey and IDI based on pilot test feedback

Phase 4: Data Collection

Duration: 3 weeks (April 1 – April 21)

Activities:

Administer survey to a sample of agribusiness practitioners

Conduct IDIs with a sample of agribusiness practitioners

Compile and analyze survey and IDI data

Phase 5: Data Analysis and Reporting

Duration: 1 weeks (April 23 – May 1)

Activities:

Analyze survey and IDI data

Develop a report on research findings

Create a presentation summarizing research findings

Phase 6: Dissemination

Duration: 1 weeks (May 2- May 8)

Activities:

Present research findings to relevant stakeholders

Develop a plan for disseminating research findings to wider audience

Phase 7: Evaluation and Closeout

June 2, 2023

Activities:

Evaluate the success of the project in meeting objectives

Develop recommendations for future research

Appendix IV: Letter of Acceptance to Study USAID Farmer to Farmer Project

