THE IMPACT OF HEALTHCARE INTERVENTIONS BY AGRICULTURAL COOPERATIVES ON WOMEN'S SOCIO-ECONOMIC RECOVERY DURING THE POST-COVID-19 PERIOD IN KAJIADO COUNTY, KENYA

MUNENE CYNTHIA MUKAMI

A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF COOPERATIVES AND AGRIBUSINESS MANAGEMENT IN PARTIAL FULFILMENT FOR THE AWARD OF THE DEGREE OF MASTER OF COOPERATIVE MANAGEMENT AT THE COOPERATIVE UNIVERSITY OF KENYA.

NOVEMBER 2024

DECLARATION AND APPROVAL

Declaration

This research project is my original work and has not been presented for award of a degree in any other University or for any other award.

Signature  **Date** 28TH November, 2024

Munene Cynthia Mukami

MCMC01/8528/2020

Approval

This research project has been submitted for examination with our approval as University Supervisors

Signature  **Date** 28/11/2024

Prof. Kennedy Munyua Waweru

Department of Accounting and Finance School of Business and Economics

The Cooperative University of Kenya

Signature  **Date** 29/11/2024

Dr Charles Wambu

Department of Cooperatives and Community Development

The Cooperative University of Kenya

DEDICATION

To my family, the agricultural co-operatives of Kajiado County, and the team who assisted with data collection and Maasai translation thank you for your unwavering support.

ACKNOWLEDGMENT

I extend my deepest gratitude to my project supervisors, Prof. Kennedy Munyua Waweru and Dr. Charles Wambu, for their exceptional guidance, insightful advice, and steadfast support throughout this research. Your expertise and encouragement have been pivotal to the success of this work.

I am also profoundly grateful to the WINRACK project for awarding me a scholarship and providing the financial support essential for my research. This funding was critical in facilitating data collection and advancing this study.

Additionally, I thank everyone who contributed intellectually, including the data collection team and translators, for their efforts in ensuring effective communication with respondents in the Maasai language. Your dedication has been invaluable.

Thank you all for your significant contributions to this research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CH: Co-operative Health

CIC: Cooperative Insurance Company

COVID-19: Coronavirus disease of 2019

DEFF: Design effect (for cluster surveys)

DiD: Difference in Difference

FGDs: Focus group discussions (FGDs)

GBV: Gender Based Violence

HIV: Human Immunodeficiency Virus

ICA: International Cooperative Alliance

I**CMIF**: International Cooperative and Mutual Insurance Federation

ILO: International Labour Office

KIIs: key informant interviews

LMICs: Lower-Middle-Income Countries

MSMEs: Micro-Small and Medium Enterprises

NACOSTI: National Commission for Science, Technology, and Innovation

NHIF: National Health Insurance Fund

OOP: Out of pocket payment

P'KWI: Popular Knowledge Women's Initiative

PPE: personal protective equipment

SDGs: Sustainable Development Goals

SE-MMR: sequential explanatory mixed method research

SEWA: Self Employed Women's Association

SPSS: Statistical Package for Social Sciences

TB: Tuberculosis

UHC: Universal Health Care

USDA: United States Department of Agriculture

DEFINITION OF KEY TERMS

Agricultural Co-operatives: Refers to a group of farmers who have voluntary come together to pool resources to market their produce.

Healthcare Financing: is a function of a health system focused on gathering, accumulating, and distributing funds to meet the health needs of individuals and communities within the health system

Out-of-pocket (OOP): payments refers to the direct payments made by patients to healthcare providers for the services, without any health insurance or external financial support.

Post-COVID-19 refers to the period after the COVID-19 pandemic has subsided, during this period societies and economies were transitioning from the crisis to a new normal.

Recovery: Refers to a continuous and evolving process of behavioural change marked by sustained enhancements in biological, psychological, and social functioning, as well as a clearer sense of purpose in life.

Universal Health Coverage (UHC): is a multi-dimensional concept encompassing Universal Population Coverage, Universal Financial Protection and Universal Access to Quality Health Care.

ABSTRACT

This research investigated the impact of healthcare interventions by agricultural cooperatives on women's recovery during the post-COVID-19 period in Kajiado County, Kenya. Agricultural cooperatives play a pivotal role in various aspects of agriculture, contributing significantly to economic activities and development. Globally, agricultural cooperatives are recognized for their role in providing healthcare interventions, aligning with their principles of resource mobilization, pooling, and deployment. Although still developing in East Africa, this organized participation promises improved healthcare accessibility. Women encountered exacerbated health concerns as a result of the COVID-19 pandemic, including a rise in sexually transmitted infections (STIs), unintended pregnancies, gender-based violence (GBV), and mental health disorders. The pandemic disrupted agricultural value chains and impacted cooperative functions, leading to decreased member participation and financial challenges. This study explored how agricultural cooperatives addressed women's recovery in the post-COVID-19 period in Kajiado County. It examined support initiatives for women's recovery, internal healthcare mechanisms targeting women, and cooperative-led interventions in post-COVID-19 recovery. Supported by Social Capital Theory and Empowerment theory, the study focused on Kajiado County. Kajiado County was selected for its cultural diversity and economic activities and as one of three counties chosen for the WINRACK project. This research used a mixed-methods design, incorporating a sample of 373 respondents drawn from agricultural cooperatives. The quantitative approach applied non-probability purposive sampling, while the qualitative phase utilized Key Informant Interviews and Focus Group Discussions. A purposeful sampling strategy was implemented to ensure representation from cooperatives of varied sizes, activities, and demographic profiles. Data analysis combined descriptive statistics in SAS V8 and SPSS with thematic analysis in NVivo. Transcribed field notes from KIIs and FGDs were coded to identify themes, integrating quantitative and qualitative insights for comprehensive results. The unstandardized coefficient for healthcare initiatives was 0.623, indicating that for every one-unit increase in healthcare initiatives, recovery increased by 0.623 units, holding other factors constant. A strong relationship was observed between the predictors (including support initiatives, healthcare efforts, challenges, and experiences) and women's recovery, evidenced by a correlation coefficient (R) of 0.786. The R-squared value of 0.617 suggests that these predictors account for roughly 61.7% of the variation in women's recovery outcomes. The adjusted R Square of 0.613 confirmed that after adjusting for the number of predictors, 61.3% of the variance in recovery remained explained. The results enhance understanding of how agricultural cooperatives can effectively support women's recovery through healthcare interventions post-COVID-19. This study recommends that agricultural cooperatives should strive to develop and implement robust communication strategies to bridge the gap between awareness and actual engagement in healthcare programs for women.

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter covers the study's background, global, regional, and local perspectives healthcare initiative by Agricultural co-operatives, relationship between healthcare initiatives and women recovery post Covid-19, problem statement, aims, research questions, significance, scope, limits, and study assumptions.

1.2 Background of the study

The International Cooperative Alliance (ICA) (1995) adopted a revised statement of cooperative identity, defining it as an independent association of individuals who voluntarily unite to fulfill their common economic, social, and cultural needs and objectives through a collectively owned and democratically managed organization. The evolution of agricultural cooperatives has a rich history, starting with the Rochdale Equitable Pioneers Society in 1844 a consumer co-operative founded by 28 cotton workers in Rochdale which had a great impact on formation of agricultural co-operatives (staff, 2022). In the United States, the Patrons of Husbandry, emerged in 1867, after the Civil War with a mission to advance agricultural methods and providing farmers with a collective voice and a platform to address systemic issues, creating a foundation for the cooperative model to flourish in the agricultural sector. As agricultural cooperatives gained momentum, the United States Department of Agriculture (USDA) adopted key principles, aligning with the International Cooperative Alliance (ICA) principles of user ownership, control, and benefit. Agricultural co-operatives can be classified to into three categories namely service, marketing and supply co-operatives based on their main activities (King & Ortmann, 2007).

Agricultural cooperatives have been instrumental in development of agriculture, helping in resource and input utilization, water resource collection, marketing, storage, distribution, value addition, and maintaining a monitoring system. Additionally, they contribute to economic activities such as credit disbursement and distribution of agricultural inputs, offering inherent advantages in addressing challenges related to poverty alleviation, food security, and employment generation (Kumar et al., 2015).

1.2.1 Global perspective of healthcare initiatives by Agricultural co-operatives

Over the last 60 years, the Japanese agricultural cooperatives have led the way in healthcare system, establishing purchasing pools, constructing hospitals, and employing healthcare workers. Similar experiences can be found in the USA and France (International Labour Office, 2001). In 1990s Sweden health cooperatives emerged as an alternative following the shortcoming in the public healthcare, Italy and Spain have also developed over the years expansive healthcare co-operatives, that are predominantly owned by providers (Nayar & Razum, 2003). Canadian health cooperatives have a rich history spanning more than six decades. The inaugural Canadian health cooperative, Coopérative de santé de Québec, was founded in 1944 in Québec City. Currently referred to as Services de santé de Québec (SSQ) or SSQ, Mutuelle d'assurance groupe, it operates throughout the province of Québec(Panayotof-Schaan, 2009). In 1962, a pivotal event transpired as the majority of physicians in Saskatchewan resisted the implementation of Canada's first universal healthcare system by shutting their practices. This resulted in the formation of the Community Health Services Association Ltd in Saskatoon by vigilant citizens and physicians, signifying the inception of cooperative healthcare initiatives in the province.

The global health crisis caused by the COVID-19 pandemic brought to light vulnerabilities in the structure of healthcare systems, amplifying existing inequalities both at the national and international levels (Kwon & Kim, 2022). Discussions and articles suggested that health financing would be adversely affected. It was speculated that funding for healthcare, sourced from the government, out-of-pocket expenses, and donor support, would decrease. This reduction was anticipated because government funds would be redirected towards pandemic response efforts, individuals' out-of-pocket spending would decline due to income losses, and donor assistance was expected to decrease with existing funds redirected to tackle the obstacles posed by COVID-19 (Tandon et al., 2020).

In the US for instance, the health system, was faced with a great financial challenge with the cancellation of outpatient and elective inpatient service due social distancing. Shortage of PPEs and other medical supplies also cause financial strain in the healthcare system (Barnett et al., 2020). In India, the pandemic had a substantial impact on healthcare financing, government resources were redirected towards fighting the pandemic, the insurance sector faced heightened risk following the government directive prompting them to cover Covid -19, in addition, high out of pocket payment to treat the corona virus caused financial burdens to households (Shukla et al., 2020).

1.2.2 Regional perspective of healthcare initiatives by Agricultural co-operatives

Cooperatives in various African regions are involved in creating healthcare facilities such as hospitals and clinics to provide essential services, with specific examples like the Sikecoudji cooperative clinic in Benin offering maternal care (Anania, 2020)

In the East African region, although the organized participation of agricultural cooperatives in healthcare is still nascent, there exist some notable examples. In Uganda, a health cooperative was initiated in 1997 with support from the American dairy cooperative Land O' Lakes and a funding of $750,000 from the US Agency for International Development (USAID). Developed with the guidance of dairy co-operatives in rural Uganda, it was built upon the concept of prepaid healthcare programs. The cooperative encourages farmers to unite their resources to reduce healthcare delivery expenses, allocate funds for prepaid healthcare, and promote preventive health measures (Panayotof-Schaan, 2009). HealthPartners, a non-governmental organization have also organized rural communities into healthcare cooperatives in Uganda they have played a pivotal role in Uganda's health cooperatives by training local stakeholders to identify and address community healthcare needs, supporting co-operative members and providers in establishing accountable partnerships (HealthPartners, 2024).

1.2.3 Local perspective of healthcare initiatives by Agricultural co-operatives

The Kenyan government has made considerable advancements in achieving Universal Health Coverage (UHC); but, equity challenges, including treatment quality, service usage, and catastrophic household expenditures, especially among the impoverished and vulnerable populations, have hindered progress. The 1967 establishment of the National Hospital Insurance Fund (NHIF) was an early step towards Universal Health Coverage (UHC). Kenya has made progress in reducing childhood mortality, Enhancing maternity healthcare and antiretroviral accessibility, while broadening health insurance coverage for at-risk groups. Nonetheless, attaining Universal Health Coverage remains an elusive objective. (Moses et al., 2021). Healthcare in Kenya faces several challenges, including a severe shortage of human resources and high rates of provider absenteeism, requiring enhancements in funding, supervision, and training, as well as addressing inadequate infrastructure, medical equipment, and drug availability to improve service delivery (Chen et al., 2014). Patients face significant challenges, including high out-of-pocket healthcare costs, frequent health worker strikes due to poor management and infrastructure, increased service costs and issues with the overall quality and utilization of care (Okech & Lelegwe, 2016). Currently, government is addressing healthcare issues by transitioning from the current NHIF to a new Social Health Authority (SHA), which has established three funds: the Primary Healthcare Fund, the Social Health Insurance Fund, and the

Emergency and Chronic Healthcare Fund. This transition aims to achieve Universal Health Coverage (UHC) by increasing contributions to the Social Health Insurance Fund, promoting preventive care through the Primary Healthcare Fund, and reducing the cost burden of emergency and chronic illnesses via the Emergency and Chronic Healthcare Fund. Additionally, the government has also enacted the Facility Improvement Financing Act to ensure public health facilities are well-equipped and have adequate medical supplies and the Digital Health Act to establish an integrated digital health information system and improve data management, interoperability, and access to health information.

Non-governmental organizations (NGO's), Community Based Organization (CBOs) and Co-operatives play a vital role in Kenya's healthcare by mobilizing communities, providing financial support, and building capacity. Initiatives like the Marwa Kisumu Solidarity Health Cover demonstrate their impact in ensuring affordable healthcare access. Partnerships with organizations such as HealthPartners exemplify how innovation can enhance healthcare delivery nationwide, supported by agencies like USAID.

Cooperatives, notably the Co-operative Insurance Company (CIC), significantly contribute to healthcare by offering health insurance services both within the country and across Africa. Agricultural cooperatives assist their members in obtaining health insurance by partnering with national schemes. (Anania, 2020). In the remote areas of Kenya where roads are inaccessible community health organization have operated innovative mobile health clinics and utilized camels and motorbike to transport essential medication (Kingori, 2021).

1.3 Agricultural Co-operatives in Kajiado County

Kajiado County has historically faced marginalization and discrimination due to policy and social exclusion. The county's climate varies from semi-arid in the south to more fertile areas and is divided into five sub-counties: Kajiado East, Central, South, West, and North. Traditionally the county was reliant on livestock, but it is now experiencing a transformation through cooperatives that aim to modernize pastoralism and commercialize livestock farming using modern technologies and value addition (Kipaya et al., 2020). In addition to traditional livestock activities, the Kenya Rural Women Network has established women-led multipurpose cooperatives to diversify income sources and empower women. These cooperatives, initially focused on beadwork, have expanded to include sectors such as fish, vegetables, and energy artisans (Business Daily Africa, 2024).Women co-operatives in Kajiado county have collaborated with projects like Acting Now for Food Security and Resilient Systems Project to transform the dairy sector through a successful cooperative by increasing fodder production, improved milk handling, ensuring consistent feed and reducing spoilage, leading to a

boost in income stability and community food security (Kalanza, 2024). Agricultural co-operatives in Kajiado have enhanced economic stability, improved market access, and strengthens resilience to climate change.

1.4 Relationship between healthcare initiative by Agricultural co-operatives and women recovery post Covid-19

The COVID-19 pandemic of 2019-2021, which saw restriction of gatherings, cross border movements and shrinking of financing greatly disrupted entire agricultural value chains globally. The restriction measure also impacted daily living, aggravated existing gender inequalities and heightened the risk of harassment and sexual violence for women. Some research suggested a connection between the prevalence of Human Immunodeficiency Virus (HIV) and gender-based violence, particularly in hyper-endemic countries (Mittal & Singh, 2020). Covid-19, limited access to the healthcare system and resources, especially in preventative and reproductive healthcare to women who lack adequate financial resources and health insurance (Alon et al., 2020; Ellington, 2020). During the pandemic, a rise in OOP was witnessed and payment of medical insurance premiums fell as workers were subjected to reduced pay, redundancy, and lay-offs.

Living up to the co-operative principles of community concern and education, co-operative societies around the world responded to the pandemic's challenges by providing healthcare services and personal protective equipment (PPE) kits, as well as addressing financial needs and priority issues such as gender violence. Women's groups have played an important role during COVID-19 and other epidemics by actively engaging in crucial community initiatives through remote training on COVID-19 prevention to these groups. During past epidemics like Ebola in Liberia and Senegal, women's groups spearheaded community awareness efforts and provided essential support (de Hoop et al., 2020).

Co-operatives demonstrated significant solidarity and innovation during the COVID-19 crisis, essential for community support and recovery. Italian co-operatives donated excess revenue to local co-operatives and hospitals, Coop Italy supplied cleaning products to Bulgarian co-operatives, and collaborations like Pwiic and Multipharma in Belgium enabled local assistance. Thuisverpleging Meerdael in Belgium secured medical supplies for nurses, while ChiFresh Kitchen in Chicago ensured economic stability and provided meals to those in need. These efforts greatly supported communities and helped mitigate the pandemic's socio-economic impacts (Billiet et al., 2021).

1.5 Problem statement

The economic and social turmoil resulting from the COVID-19 pandemic put millions at risk of falling into poverty, primarily due to widespread job losses and reduced income levels. Informal sector workers were particularly impacted, as they often lacked access to essential healthcare and social safety nets. Women, as one of the most vulnerable groups, faced significant challenges in accessing healthcare resources, including basic services like sanitary supplies, family planning, and essential maternal and child health services. The pandemic also heightened issues like crime, drug misuse, unwanted teen pregnancies, and domestic violence, negatively impacting women's psychological, physical, emotional, and mental health. A number of studies have shown how co-operatives adapted to address their members new challenges brought about by the pandemic by coming up with initiatives such as setting up community kitchens to enhance the nutrition of vulnerable groups, spreading awareness of the pandemic, creating targeted health insurance packages for COVID-19, and producing and distributing protective equipment to mitigate the transmission of COVID-19 (Billiet et al., 2021). However, there is a gap in understanding the impact of healthcare intervention by Agricultural cooperatives in women's recovery during and after the COVID-19 pandemic in Kajiado County Kenya. This study explored the impact of healthcare intervention by Agricultural cooperatives in women's recovery during and after the COVID-19 pandemic in Kajiado County Kenya.

1.6 The purpose of the study

The purpose of the study was to explore the impact of healthcare intervention by agricultural cooperatives in women's recovery during and after the COVID-19 pandemic in Kajiado County Kenya.

1.6.1 General Objective

The general objective of the study is to investigate the impact of healthcare interventions by agricultural cooperatives on women's recovery during the post-COVID-period.

1.6.2 Specific objectives

1. To assess the healthcare support initiatives by Agricultural cooperatives in facilitating women's recovery from the socio-economic impacts of the COVID-19 pandemic in Kajiado county.

2. To examine the impact of Agricultural cooperatives healthcare initiatives on women's recovery in Kajiado county during the post-COVID-19 Period.
3. To examine the challenges faced by agricultural cooperatives healthcare initiatives and their effect on women's socio-economic recovery ~~through~~ in the aftermath of the COVID-19 pandemic in Kajiado County.
4. To analyse the influence of perceptions and experiences of women beneficiaries on the effectiveness and accessibility of cooperative-led healthcare interventions in post-COVID-19 period

1.7 Research Questions

1. What support initiatives have Agricultural cooperatives implemented to facilitate women's recovery from the socio-economic impacts of the COVID-19 pandemic in Kajiado County?
2. To what extent have healthcare initiatives by agricultural cooperatives contributed to women's recovery in Kajiado County during the post-COVID-19 period?
3. How do the challenges faced by agricultural cooperatives affect their ability to support women's recovery through healthcare initiatives in the aftermath of the COVID-19 pandemic in Kajiado County?
4. How do the perceptions and experiences of women beneficiaries influence the effectiveness and accessibility of cooperative-led healthcare interventions in post-COVID-19 recovery?

1.8 Significance of the study

The results will be of great importance to policymakers and community stakeholders, particularly in Kajiado County, about the interventions of agricultural cooperatives in women's recovery and healthcare financing in the post-COVID-19 period. By identifying and analysing the specific measures taken by these cooperatives, the research will provide actionable insights that will guide the formulation of policies and strategies to strengthen women's resilience, economic empowerment, and overall well-being. Government institutions, including the cooperative department, will gain a comprehensive understanding of effective post-pandemic interventions, facilitating informed decision-making and policy formulation. The findings will not only benefit cooperatives but will also be instrumental for regulatory and licensing authorities, aiding them in shaping policies that foster sustainable agricultural cooperative practices. Ultimately, this study adds valuable insights to the existing knowledge base, specifically addressing the interventions of agricultural cooperatives in

women's recovery and healthcare financing, thereby contributing to the broader discourse on post-pandemic community resilience and economic recovery.

1.9 Scope of the study

Geographically the study was conducted in agricultural co-operatives within Kajiado county. The study encompassed a comprehensive examination of the specific measures employed by agricultural cooperatives, including financial assistance programs, healthcare initiatives, change of policies and community support mechanisms targeting women. This temporal scope ensured a thorough understanding of the post-pandemic interventions and their impact on women's recovery. By focusing on these aspects, the study aimed to provide insights into the effectiveness and challenges of cooperative-led initiatives, enabling the reader to assess the generalizability of the findings.

1.10 Limitations of the study

Several limitations were encountered during the study, which may have influenced the results and findings. One significant limitation was the dependance on self-disclosed information from respondents, which could lead to biases such as overreporting or underreporting due to memory recall or social desirability. To mitigate this, efforts were made to design clear and neutral survey questions, and respondents were assured of confidentiality to encourage honest responses.

Another limitation was the challenge of accessing remote areas, which may have impacted the sample's representativeness. Although efforts were made to reach diverse groups, including deploying local data collectors familiar with the community, certain areas remained underrepresented. Future studies could address this by using alternative data collection methods, such as mobile surveys or satellite mapping, to ensure broader geographical coverage.

Additionally, most of the agricultural cooperatives listed in the Kajiado cooperative database were found to be dormant, lacked physical addresses, or were non-existent. The initial sampling frame aimed to include all 123 registered agricultural cooperatives in Kajiado County. However, during the research process, it became clear that many cooperatives were inactive or difficult to locate. After fieldwork, only 18 active cooperatives were identified, leading to a sample of 373 participants based on accessible cooperative members willing to participate. This limitation suggests a need for updated records and databases to improve future research accuracy.

Lastly, cultural differences presented challenges in communication, especially regarding sensitive topics. To address this, translators fluent in the Maasai language and culturally knowledgeable were engaged to ensure accurate and respectful communication.

1.11 Assumptions of the study

The study made the following assumptions:

1. The study assumed that women in Kajiado County have reasonable access to agricultural co-operatives that enable them to participate in initiatives aimed at recovery and healthcare financing.
2. The study also assumed the availability of reliable and relevant data on the interventions agricultural cooperatives in supporting women in Kajiado County during the post-COVID-19 pandemic period.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the researcher examined pertinent literature about healthcare interventions, agricultural cooperatives, and women's recovery. The review was conducted in accordance with the research objectives. The researcher also presented the theoretical framework and the conceptual framework.

2.2 Theoretical Framework

A theoretical framework is an organized collection of concepts and propositions derived from one or more theories that underpins a study. It involves defining relevant concepts, logically connecting them, and relating these to the specific research. Essentially, it reflects how the researcher applies theory to their study (Varpio et al., 2020).

The study is anchored on the Social Capital Theory and Empowerment Theory.

2.2.1 The Social Capital Theory

Social Capital Theory posits that collaborative actions, especially those involving community efforts, rely heavily on trust, mutual support, and cooperation among group members.(DiClemente et al., 2002). The concept emerged in the 19th century from three American sociologists Ronald Burt, James Coleman, and Robert Putnam. Each contributed distinct definitions: Coleman emphasized the functional aspect, stating that social capital emerges when relations among individuals facilitate action; Burt defined it as relationships that provide opportunities for using financial and human capital; Putnam viewed it as a property of groups or communities, involving trust, norms, and networks enhancing societal efficiency (Kim & Cannella Jr., 2008).

Social capital theory is a valuable framework for analysing how cooperative members' shared habits mobilize collective social capital, facilitating strong connections with local communities and contributing to their ability to achieve common objectives (Bianchi & Vieta, 2020). Although none of the definitions of cooperatives explicitly mention social theory, they imply that cooperatives rely on social capital, characterized by user ownership, user control, and the distribution of rewards in accordance with patronage. (Nilsson et al., 2012).

According to Apparao and colleagues, (Apparao et al., 2019) members evaluate agricultural cooperatives in social terms rather than solely focusing on economic benefits. Social capital plays a crucial role in coordinate collective efforts in addressing shared health problems and facilitates

efficient resource allocation for mutual health benefits (Tundui et al., 2014). Social Capital emphasizes the importance of networks and relationships, which are crucial for providing support systems within agricultural cooperatives. These networks facilitate information exchange, emotional support, and collective action, all vital for women's recovery and empowerment. The theory also highlights the role of trust and reciprocity in strengthening community bonds.

Trust among cooperative members enhances cooperation and mutual support, leading to more effective healthcare interventions. Social capital fosters a sense of collective efficacy, motivating cooperative members to actively participate in healthcare initiatives and advocate for better services and policies. Active participation in cooperative activities empowers women by giving them a voice and a sense of ownership over their health outcomes. By influencing on health outcomes and healthcare-related assistance, social capital theory also enhances agricultural co-operatives practices by fostering collaboration, resource-sharing, and coordinated efforts within farming communities.

2.2.2 Empowerment Theory

Empowerment Theory, originally developed by Paulo Freire and later expanded by Gutierrez, centers on elevating marginalized individuals by fostering self-awareness and social justice. The theory promotes increasing personal and collective power to address inequalities, emphasizing empathy and community involvement. Its goal is to enable individuals, especially those from underprivileged backgrounds, to actively participate in improving their social and economic conditions.(Turner & Maschi, 2015). The theory relates to my study by emphasizing the importance of increasing personal and community power among women in Kajiado County through healthcare interventions by agricultural cooperatives, aiding their recovery from the socio-economic impacts of COVID-19.

Empowerment theory addressed social problems that arising from unequal resource distribution and emphasizes mutual help and self-advocacy over professional dependency. This approach helps to improve wellness, identify strengths, and consider environmental influences, redefining traditional roles by promoting collaboration over unidirectional help (Zimmerman, 2000). The concept of empowerment encompasses several dimensions personal control, self-efficacy and ecological perspective. Personal control involves actively engaging and questioning one’s situation to find options. Self-efficacy, where individuals attribute their change to both external support and their internal capabilities, fostering confidence and interdependence. Ecological empowerment where individuals becoming empowered through community involvement and social contexts.

The ecological perspective underscores the nature of empowerment and recovery, emphasizing community involvement and the importance of support networks within agricultural cooperatives to foster a sense of belonging and collective efficacy among women. Understanding the broader social, economic, and cultural contexts in which these women operate is crucial, as these factors influence their health outcomes and empowerment. The theory highlights the importance of advocating for policy changes that support women's health and rights, recognizing that systemic changes are essential for lasting empowerment.

2.3 Empirical Review

2.3.1 Assessing the role of Agricultural cooperatives in facilitating women's recovery from the socio-economic impacts.

A study by Lecoutere et al examined the role of agricultural cooperatives in promoting women's empowerment in Uganda. The research involved interviewing 176 members of the Popular Knowledge Women's Initiative (P'KWI) Farmer-to-Farmer Cooperative Society, with 60.8% of participants being women. They also included 111 non-member respondents, 57.7% of whom were women. The researcher used a Difference in Difference (DiD) analysis to evaluate the impact of P'KWI membership on empowerment, utilizing samples of both male and female P'KWI members and non-members. The analysis found that membership in the cooperative economically empowers women by decreasing household basic needs insecurity and food insecurity, while also enhancing the overall wellbeing of their households.

Men also undergo comparable effects from belonging to cooperatives. The analysis also revealed that cooperative membership is advantageous for diversifying income, particularly for women. While the previous study focused on the broader impact of agricultural cooperatives on women's empowerment this study diverges by specifically focusing on the post-COVID-19 context. The study narrows the scope to examine how agricultural cooperatives supported women's recovery, the unique challenges and disruptions of the pandemic. The study employed a Mixed Methods Research and use both qualitative and quantitative data, which contrasts with the DiD methodology used in previous study which gives casual inference.

Kpadé et al conducted research to to examine food insecurity, adaptive strategies, and resilience among members of agricultural cooperatives in West Africa amid the COVID-19 pandemic (Kpadé et al., 2023). The research examined how household food insecurity varied during the COVID-19 pandemic based on membership in different types of agricultural cooperatives in Ghana, Mali, Ivory Coast, and

Senegal. Data were collected from 1,270 cooperative members, and regression analyses were conducted to explore the relationship between the type of cooperative and the dynamics of household food insecurity. The cooperatives were classified as either active or inactive. The study's findings indicated that members of inactive cooperatives faced greater challenges in accessing food compared to those in active cooperatives.

This study showed that participants in operational cooperatives showed greater resilience compared to those in inactive cooperatives. The researcher concluded that fostering collective actions and public interventions to strengthen the vitality of cooperatives in small communities is essential. Such support will guarantee continuous delivery of essential services to members and mitigate the socioeconomic effects of potential crises, such as the COVID-19 pandemic mic. Both studies converge on the idea of co-operatives being a vital social-economic model that can mitigate the adverse impacts of crisis by fostering resilience and providing essential services. Whereas the previous study provides a broader comparison of food insecurity dynamics among different cooperative memberships, this study focused on the specific support initiatives targeted at women's recovery from the pandemic's impacts. This initiative includes economic, social, and psychological support tailored to address the unique challenges faced by women.

Francesconi et al conducted a study to examine the role of managerial capital for rural resilience in Southeast Africa Agricultural co-operatives during the COVID -19 period (Francesconi et al., 2021). The study used pre-and during shock date from agricultural co-operatives to examine the resilience of the smallholder owned organizations. Quantitative data was collected from 443 farmer hold organization from 5 countries Uganda, Malawi, Madagascar, Rwanda and Kenya. The findings indicated that the insufficient resilience exhibited by most cooperatives was linked to organizational immaturity, extensive membership size, elite capture, and a restricted economic orientation stemming from an overall deficiency in managerial capital.

In the lack of managerial capital, farmer-owned organizations could only depend on social capital, which was scarcely utilized due to the enforcement of social distancing measures.The author suggests that development of managerial capital through hiring business managers, provision of management training to members and digitization of meetings and operations would alleviate the effects of the economic downturn by helping agricultural co-operatives centralize and digitize decision-making processes and the bulking, storing and marketing of members' produce. Both studies converge on the examination of agricultural cooperatives during the pandemic and their roles in fostering resilience among their members.

The studies share a common interest in understanding the factors that contribute to or hinder the effectiveness of cooperatives in supporting their members during crises. The studies however diverge in focus, the previous study focuses on the role of managerial capital in enhancing or hindering the resilience of cooperatives and examining organizational and structural factors that impact the overall resilience of cooperatives while this study focused on understanding the gender-specific interventions and their effectiveness in addressing the unique challenges faced by women during the pandemic.

Mumararungu, et el investigated the significant impact of agricultural cooperatives on boosting resilience and reinforcing the social cohesion of rural communities in Mali's Kita and Yanfolila regions (Mumararungu,I et al., 2024). The research employed both quantitative and qualitative methodologies, gathering data from 149 individuals, comprising cooperative members and non-members, via structured surveys and focus group discussions. The study utilized comparative analysis to investigate the difficulties farmers encounter, the advantages associated with cooperative membership, the interactions that foster social unity within these cooperatives, and the complexities surrounding inclusion. According to the study finding agricultural co-operatives play a vital role in fostering members resilience and social cohesion.

Cooperatives actively participated in distributing vital COVID-19 control supplies to communities. They worked closely with local authorities and health organizations to pinpoint high-risk areas, disseminate current information, and provide ongoing assistance to the community. Both studies converge on the recognition of agricultural cooperatives as essential entities in enhancing community resilience and supporting members during crises. However, this study uniquely contributed by focusing on the post-COVID-19 recovery efforts specifically for women, addressing a critical gap in the literature regarding gender-specific support mechanisms within agricultural cooperatives.

2.3.2 Examining the extent to which Agricultural cooperatives healthcare interventions contribute to women’s recovery.

Connor et al wrote a review on health risks and outcomes that disproportionately affect women during the Covid-19 pandemic. The review detailed specific health risks affecting women and the outcomes influenced by gender, particularly exacerbated during the Covid-19 pandemic. It analyzed the health, economic, and social factors contributing to gender disparities in healthcare workforce representation, reproductive health services, drug development, incidents of gender-based violence, and mental health outcomes during the pandemic (Connor et al., 2020).

Drawing on data from previous disease outbreaks and current Covid-19 literature, the review investigated the impact of virus exposure, disease risks, and overall health outcomes for women throughout the pandemic. The research findings suggested that gender disparities in health risks and consequences are expected to widen amid the Covid-19 pandemic. Initiatives aimed at promoting equality across health, social, and economic systems during and following the pandemic could help alleviate the disproportionate risks associated with pandemics and other periods of healthcare strain.

The current study investigated how agricultural cooperatives handle healthcare issues targeting women members during the COVID-19 pandemic, converging with the broader literature on gender-based health disparities. Both studies highlight the critical role of supportive systems in mitigating adverse health outcomes for women. Agricultural cooperatives, with their community-based approach, are uniquely positioned to address these gender-specific challenges by leveraging their internal mechanisms to provide targeted health support to women. While the previous literature provides a comprehensive overview of gender disparities in health outcomes during COVID-19, it does not specifically address the role of agricultural cooperatives in mitigating these disparities.

Anania and et al conducted a study on the how to go about establishing co-operatives as key collaborators in Africa's global health agenda. The study presented both direct and indirect strategies for co-operatives to engage in health-related processes. Drawing upon theories of social suffering and access, the study conducted an exploratory literature review to collect secondary data. It critically analysed 41 selected pieces of literature on cooperatives and global health, adhering to specific inclusion and exclusion criteria (Anania & P.E, 2016).

The review followed a protocol centred on health and demographic trends in Africa, strategies for incorporating the cooperative model into global health initiatives, and pertinent case studies from local and international contexts. The findings reveal that cooperatives can employ various empirically proven strategies to engage in promoting global health both directly and indirectly. These strategies encompass setting up hospitalization services, offering health insurance, manufacturing and distributing medical and nutritional products, running mobile clinics, conducting health research, disseminating health information, and coordinating access to health services, among other initiatives. The study concluded that cooperatives could serve as reliable partners in advancing the global health agenda in Africa through these direct and indirect engagements.

This study converges with the previous study since they both share a common goal of leveraging the cooperative model to address health disparities and improve access to healthcare services. The two

studies emphasize on the importance of cooperatives in enhancing health outcomes. The strategies by the previous study can be directly applied to the context of agricultural cooperatives, demonstrating how these entities can support women's health during and beyond the COVID-19 pandemic.

Leelavathi et al conducted a study on conceptualizing healthcare cooperatives as a parallel pathway for advancing health and healthcare services. The study helped in understanding the roles of healthcare cooperatives, including establishing service facilities, modernizing existing ones, expanding to various geographical areas, and providing healthcare education to the public. The study also highlighted the importance of repairing and renovating medical equipment. Additionally, the study identified ways for health cooperatives to achieve self-sustainability, initially relying on government financial support. The study outlined the key factors healthcare cooperatives need to consider providing optimal benefits to citizens and to operate in a self-sustained and resilient manner. The study gathered data from both the public and healthcare professionals. The findings reveal the methods by which healthcare cooperatives can deliver well-structured healthcare support to the nation (Leelavathi et al., 2023).

The previous study provides a valuable framework for understanding the roles and strategies of healthcare cooperatives, which can be directly applied to agricultural cooperatives focusing on women's health. By implementing strategies such as establishing and modernizing health facilities, expanding services to various areas, providing health education, maintaining medical equipment, and achieving self-sustainability, agricultural cooperatives can effectively address the healthcare needs of their women members. The previous study used exploratory literature review to gather secondary data and analyse various roles and strategies for healthcare cooperatives and provides a broader framework for healthcare cooperatives, without a specific focus on gender.

2.3.3 Identifying the challenges faced by Agricultural cooperatives in supporting women's recovery through healthcare initiates.

Gauri et al conducted a study to examine the impact of contracting healthcare provision to healthcare co-operatives in Costa Rica. The main objective of the study was to evaluate whether the provision of health services in cooperative-operated clinics in Costa Rica differed from that in traditional public clinics during the same period. The researcher observed 24 clinics categorized as type III and type IV, among which 3 were cooperatives, examining long-term trends and employing descriptive statistics to model health service performance indicators. The study suggested that the cooperatives responded to financial incentives by shifting to a less costly mode of health care delivery, The evidence indicated that cooperatives were able to achieve cost savings without sacrificing the quality of care provided.

The findings of the study indicated that after adjusting for various factors, conducted significantly more general and dental visits but far fewer specialist visits compared to traditional public clinics.

Cooperatives approved fewer sick days, conducted fewer lab tests, and dispensed fewer medications per visit. Overall, their total per capita expenditure was significantly lower, ranging from 14.7% to 58.9% less than that of traditional public clinics. The study concluded that with suitable incentives and a proper regulatory framework, cooperatives could potentially integrate the benefits of both public and private health care service models. The study also argues that conclusions on separating financing from provision need to include quality of care metrics. While Costa Rica's information system enabled an examination of outputs, additional studies will need data on morbidity, consumer satisfaction, treatment adherence, and other quality indicators. The previous study provides a foundational understanding on efficiency and effectiveness of cooperative models in healthcare delivery. The study provides a framework on understanding how agricultural co-operatives can enhance healthcare access to the members. However, the study does not specifically address the healthcare needs of women and their responses to healthcare financing post the COVID-19 pandemic (Gauri et al., 2004).

A research paper on health financing and delivery in India analysed a different scheme which vary in structure and financing from the viewpoint of poor informal female workers. The study examined several healthcare schemes: the Rashtriya Swasthya Bima Yojana (RSBY) administered by the Central Government; the Vimo SEWA scheme, a community-based health insurance initiative by the Self-Employed Women’s Association (SEWA); the Yeshasvini scheme in collaboration with farmer cooperatives; and the Rajiv Aarogyasri scheme.

The analysis focused on five key aspects of these schemes: inclusivity and accessibility for informal workers, service quality, awareness among target beneficiaries, the schemes' impact on reducing out-of-pocket healthcare expenses, and their effectiveness in providing healthcare access to women. The study revealed that health schemes tend to reproduce inequality if they are rooted in highly unequal societies. To resolve this the researcher recommends integrating health schemes into broader programs aimed at improving living and working conditions. The study highlights issues such as the high cost of drugs, the focus on tertiary care, lack of information and awareness among beneficiaries, gender biases, and barriers faced by migrant workers.

The study recommended the need for comprehensive approach in healthcare that includes primary and preventive healthcare, to reduce health inequities and for better monitoring and quality control in private healthcare and involvement of the Ministry of Health in setting standards. Whereas the two

studied differ in scope and geographical context they share common perspective regarding inclusivity, comprehensive healthcare, access, and economic impact. Both studies highlight the importance of health schemes targeting the poor and vulnerable groups, including women (Jain, 2013).

Fletschner and Kenney authored an article on rural women's access to financial services. The study argued that direct access to financial services by women can result in more efficient resource allocation and enhanced health, nutrition, and education for their families, boosting long-term productivity. The study highlights the need for financial services tailored to women's diverse needs, including flexible collateral options, varied loan and savings programs, simplified insurance processes, and government support for gender-sensitive policies and research to better serve rural women. While the article has a broader focus on various financial services needed for economic empowerment of rural both the article and this study emphasize the importance of women's direct access to financial services. This study highlights how agricultural cooperatives provide crucial healthcare interventions during the pandemic, which aligns with the article argument that enhancing women's financial access is crucial for their economic empowerment and family well-being (Fletschner & Kenney, 2014).

2.3.4 Exploring the perceptions and experiences of women beneficiaries regarding the effectiveness and accessibility of cooperative-led healthcare interventions.

Osumba and Oboka (2019) conducted a study to evaluate how effectively the cooperative model supports economic recovery and resilience-building aftershocks compared to Micro-Small and Medium Enterprises (MSME). The study was based on Systems Theory, utilized a historical scoping research design, and employed a literature review methodology. It emphasized that cooperatives strengthen the resilience of economic systems, enhancing their ability to adapt to economic shocks. The cooperative model is effective in supporting the most affected populations, rescuing economies from collapse, reversing economic fortunes and fulfilling needs unmet by free market Micro-Small and Medium Enterprises (MSMEs) and the state.

The study also pointed out that cooperatives face difficulties related to entrepreneurial skills, organizational management, and ethical governance, which must be addressed to enhance their resilience in the future. To support economic recovery from COVID-19 the researchers recommended that it was crucial to prioritize the capacity challenges in cooperative governance and establish a 'Marshall Plan Style' program. The program would aim to improve the financial strength of cooperatives, enhance governance and cooperative entrepreneurship, implement rigorous oversight to safeguard members, and reduce the risk of governance-related failures, with a specific emphasis on effective crisis management strategies. The researchers emphasized that the narrow scope of the

reviewed literature necessitated caution in generalizing these findings and indicated a need for further research to comprehend the long-term effects of cooperative innovations during the Great Lockdown (Osumba & Oboka, 2022).

Whereas the study by Osumba and Oboka and this study both emphasize the crucial role of cooperatives in enhancing economic resilience and supporting affected populations during crises they diverge in focus, the previous study addresses general economic resilience and entrepreneurial challenges, whereas the proposed study will specifically examine women's unique barriers and facilitators in accessing cooperative-led interventions, particularly in healthcare financing.

Omukuti et al in a paper published in The Lancet Planetary Health elaborated on applying systems thinking in COVID-19 recovery to achieve sustainable development for girls and women. The viewpoint was drawing on collective insights from the authors' research on COVID-19 responses by international and regional organizations, as well as national governments, in Latin America and sub-Saharan Africa between June 2020 and June 2021. The authors emphasize that while international and regional organizations have issued substantial policy recommendations to address the gendered impacts of the COVID-19 pandemic on women's health and well-being, national responses in sub-Saharan Africa and Latin America have been disjointed and inconsistent. These responses often fail to recognize the diverse factors contributing to gender-based health disparities. The authors propose that low-income and middle-income countries should adopt a systemic approach to address the impact of the COVID-19 pandemic on women. By adopting this approach, it becomes possible to more effectively identify and mitigate both the gender specific consequences of the pandemic and those that arise indirectly from preexisting structural inequalities. The author recommended the following interventions to improve women's health; The first was implementing debt financing and considering debt write-offs for low-income countries to enhance economic participation and health services. Second was incorporating the needs of vulnerable women in development policies to support gender-responsive approaches and the SDGs, and lastly was integrating healthcare social protection, sexual rights, and childcare services, driven by women's organizations, to effectively address gender inequalities and support equitable recovery (Omukuti et al., 2021).

Whereas both studies address the importance of addressing gender inequalities and enhancing women's health and economic stability through comprehensive, gender-responsive approaches in post-COVID-19 recovery efforts. This study specifically explored women's perceptions and experiences with cooperative-led interventions in Kajiado county.

Rahaman et al authored an article about the Socio-Economic Scenario of Cooperative Societies Responding to the COVID-19 Crisis in South Asian cooperatives. Data was obtained from secondary sources, including government websites, journal publications, newspapers, research community groups, blogs, and social media. The study highlights the cooperatives' crucial role in social contract by prioritizing people over profit, providing equal opportunities, decent employment, high-quality education, and primary healthcare. The study further highlighted some of the initiatives taken by co-operatives during the period for instance in India SEWA Cooperative Federation distributed medical supplies and food. In Bangladesh, cooperatives distributed relief items, promoted hygiene practices, continued development projects, and actively participated in community support and relief efforts, demonstrating their crucial role in crisis resilience. In Pakistan Karachi Cooperative Housing Societies assisted communities in social work. The study concluded that cooperatives are steadily growing and contributing to socio-economic development and recommended that governments should expand cooperative organizations to achieve SDGs and influence national progress. The article on South Asian cooperatives highlights the broad socio-economic impacts and government support for cooperative movements by exploring cooperative-led interventions' role in post-COVID-19 recovery in which aligns with this study (Rahaman et al., 2023).

However, this study focused specifically on women's perceptions and experiences in healthcare financing, offering a gender-specific analysis that is not addressed in the article.

2.3.5 Conceptual Framework

The following is the conceptual framework of the study:

Independent Variable **Dependent variable**

Healthcare initiatives by Agricultural Co-operative

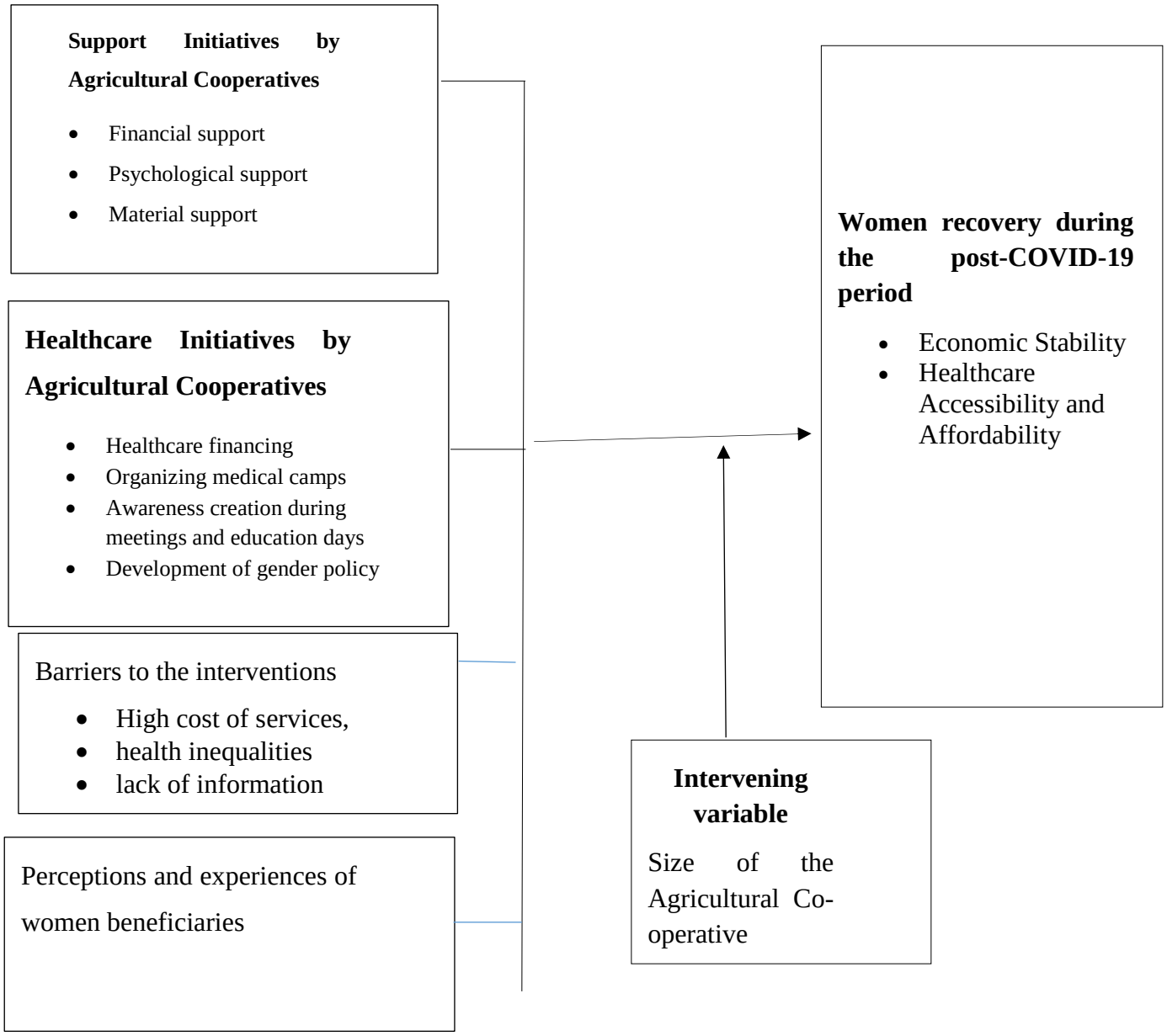

Figure 2.1 Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an overview of the researcher's approach to addressing the objectives and research problem. It includes discussions on research design, target population, sampling methods and sample selection, data collection procedures, and techniques for data analysis.

3.2 Research Philosophy

This study was anchored upon a pragmatism paradigm. Pragmatism inclusive framework of inquiry that combines different perspectives and methods to address issues, particularly social injustices (Pappas, 2017). The paradigm is often associated with mixed methods research and focuses on the consequences of research and on the research questions rather than on the methods (Kaushik & Walsh, 2019). Pragmatism emerged as a paradigm in social research methodology due to its practical focus on combining qualitative and quantitative methods, rather than on abstract philosophical claims (Morgan, 2014). The study used both qualitative and quantitative methodology and rely on data collected from surveys, interviews, focus groups observations and secondary research.

3.3 Research Design

This study utilized a sequential explanatory mixed method design to comprehensively investigate interventions of agricultural cooperatives in women's recovery and healthcare financing in the post-COVID-19 period in Kajiado County, Kenya.

Mixed methods research is defined as a design in which the researcher collects, analyses, and integrates both quantitative and qualitative data in a single study or a multiphase program of inquiry (Plano Clark, 2017). Qualitative research aims to comprehend behaviours, gather opinions, and explore expectations within a population, employing exploratory methods to gain unforeseen insights into research questions. A sequential explanatory mixed method research (SE-MMR) approach is a two-phased design where quantitative (numerical) data is collected and analysed first from e-drivers; then, qualitative (textual) data is collected (from other co-op stakeholders), analysed and used to explain quantitative (numerical) data and results. The rationale for SE-MMR design is that the quantitative (numerical) data and results provide a general picture of the research problem (Ivankova et al., 2006).

3.4 Study Area

The research was conducted within agricultural cooperatives in Kajiado county. The researcher chose Kajiado county due to the socio-culture economic and geographical location. The county is inhabited by the Maasai community, a patriarchal community. Historically, this community has experienced policy and social exclusion, resulting in marginalization and discrimination. Additionally, the county's climate exhibits diversity, ranging from semi-arid conditions in the south to other areas suitable for agriculture. In response to these challenges, initiatives have emerged encouraging women to join cooperatives for socioeconomic empowerment, aiming to enhance their living standards.

3.5 Population

The researcher obtained responses from members and management of agricultural co-operatives in one agricultural co-operative in the five sub counties in Kajiado County.

3.6 Sample Size Selection

The sampling frame included a list of all population units from which the sample was selected. For this study, the sampling frame comprised 123 registered agricultural cooperatives in Kajiado county since there is no record of the membership number of registered agricultural an estimated membership of 100 per cooperative society is used for purposes of sample size calculation. Thus, the total membership would be:

123 co-operatives * 100 members= 12,300 members

The sample size was calculated using the computer program available at the website Open-Source Epidemiological Statistics for Public Health (OpenEpi) as follows (Sullivan et al., 2009):

Sample size ***n* = [DEFF*Np(1-p)]/ [(d2/Z21-α/2*(N-1) +p*(1-p)]**

- Population size (for finite population correction factor or fpc) (N): 12300
- Hypothesized % frequency of outcome factor in the population (p): 50%+/-5
- Confidence limits as % of 100(absolute +/- %) (d): 5%
- Design effect (for cluster surveys-DEFF): 1

The sample size obtained was 373 with a Confidence Level (%) of 95%.

The initial sampling frame was expected to include all registered agricultural cooperatives in Kajiado County, initially estimated at 123 cooperatives. However, during the research process, it became clear that many cooperatives lacked physical offices or were inactive. After fieldwork, a total of 18 active

cooperatives were identified, and a sample of 373 participants was included in the study. The final sample size was based on accessible cooperative members willing to participate.

3.6.1 Sampling Procedure

The final sample of 373 participants was drawn from 18 active cooperatives across Kajiado County. Due to challenges in identifying the total population of cooperatives, a non-probability purposive sampling method was adopted. This ensured that the most accessible and willing participants from active cooperatives were included in the study, while maintaining diversity in terms of cooperative type and geographical representation.

3.6.2 Data Collection

Both qualitative and quantitative data will be collected since the study employed mixed method approach. The data collection process begun with the quantitative phase, where structured questionnaires were administered to collect data on the extent and impact of healthcare interventions and financial assistance programs. Following the quantitative phase, qualitative data was collected through interviews, FGDs, and observations. This phase focused on capturing detailed insights into the roles of cooperatives, challenges faced, and beneficiaries' experiences.

3.6.3 Quantitative Data Collection

The quantitative aspect of the study utilized close-ended questionnaires to collect structured and measurable data. These questionnaires were designed to align with all Research Questions. The questionnaires were distributed to a representative sample of women and a small fraction of men involved in agricultural cooperatives in Kajiado County. Respondents completed the questionnaires, providing data on support initiatives, healthcare initiatives, financial assistance programs, and their personal recovery experiences. The collected data was analysed using descriptive statistics to identify trends and patterns.

3.6.4 Qualitative Data Collection

The qualitative data collection involved several instruments, including interviews, focus group discussions (FGDs). One-on-one interviews and key informant interviews were gathering in-depth insights on the roles of agricultural cooperatives and the challenges they face, addressing Research Questions 3 and 4. FGDs were organized to explore the experiences and perceptions of women beneficiaries regarding the accessibility and usability of cooperative-led healthcare interventions. For the interviews, the committee and management were interviewed using semi-structured guides. These

interviews captured detailed qualitative data on the interventions and challenges. FGDs involved groups of women beneficiaries discussing their experiences and perceptions in a collective setting, facilitating rich data collection through group interactions. To enhance the validity and credibility of the findings, methodological triangulation will be employed. This involves combining quantitative data from questionnaires with qualitative data from interviews, FGDs, and observations, and cross verifying the data to ensure comprehensive and accurate insights. This structured mixed-methods approach ensures a thorough investigation by capturing both detailed individual experiences and measurable trends and patterns, thus providing a comprehensive understanding of the impact of healthcare interventions by agricultural cooperatives on women's recovery during the post-COVID-19 period in Kajiado County.

3.7 Data Collection instruments

3.7.1 Questionnaires

Questionnaire were employed due to their cost-effectiveness, particularly for studies with a large sample size. The questions will be both structured and unstructured. The Structured questions captured quantitative data, while unstructured questions allow capture qualitative data. The questionnaire were administered to women members and a small fraction of male members with assistance from research assistants. The researcher and assistants distributed the survey instruments to the target respondents and collect the completed questionnaires promptly after they are filled out.

3.7.2 Focus Group Discussions and Key Informant Interviews

Focus group discussions (FGDs) and key informant interviews (KIIs) were administered to the co-operative management and committee members and a select group of women members. Open-ended questions guided the conversation to capture qualitative data. The Data collected was transcribed, analysed for common themes compared, and interpreted in a report.

3.8 Pilot Testing

In their book, *Research Methods: Quantitative and Qualitative Approaches*, Mugenda and Mugenda describe pilot testing is an essential method used to evaluate the design, methods, and instruments prior to conducting the primary research (Mugenda & Mugenda, 1999). This process involves an initial trial run, with the pretest sample typically comprising between 1% and 10% of the total sample size. Pretest questionnaires will be distributed equitably to selected respondents, providing a cross-sectional

understanding of their perspectives. Out of the sample size of 373 ,38 respondents were involved in piloting the data collection tools. The pilot testing will be done in two co-operatives.

3.9 Validity of the study

Validity represents the most accurate approximation of the truth or falsity of a specific inference, proposition, or conclusion.

Firstly, a pilot study was conducted to identify and eliminate any irrelevant items, ensuring that the instruments =were tailored to the specific needs of the study. Additionally, the instruments were be subjected to review and comments from a peer to further enhance their accuracy and clarity.

3.9 Reliability of the study

John Aluko Orodho in *"Techniques of Writing Research Proposals & Reports In Education and Social Sciences"* asserts that reliability refers to the consistency of empirical indicators in multiple trials when measuring a theoretical concept (Orodho, 2008). In this study, the reliability of the research instrument was enhanced using the split-half reliability method. During pilot testing, the researcher administered the complete instrument to a sample of respondents, divide the items into two halves, and compared the scores from each half to assess the consistency of measurements for the same underlying construct. A reliability coefficient between the two total scores was calculated using the Statistical Package for Social Sciences (SPSS) tool.

When the value of r is +1.00, the two sets are perfectly aligned, and when it is -1.00, they are completely opposite. A correlation coefficient (r) around 0.75 is sufficiently high to evaluate the reliability of the instruments (Orodho, 2008).

3.10 Data Collection Procedures

Prior to initiating the actual data gathering, the researcher sought a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI). Additionally, the researcher applied for and obtain a letter of introduction from the university. Following the acquisition of necessary research authorizations, the researcher scheduled meetings with cooperative administrations to conduct the study on-site.

Assisted by two research assistants, the researcher administered the questionnaire to the participants during these meetings. In cases where respondents are unable to complete the questionnaires immediately, a drop-and-pick-later strategy was employed. This approach allowed respondents a one-week timeframe to complete the questionnaires at their convenience.

3.10.1 Operationalization of Study Variables

Table 3.1: Operationalization of study variables

S/No	Variable	Type of Variable	Operationalization	Operational Definition	Measurement Criteria	Hypothesized Direction	Level of Scale
1	Role of Agricultural Cooperatives	Independent	Actions taken by agricultural cooperatives to support women's recovery	Support initiatives (Financial support, psychological support, material support)	Measured by presence and types of support initiatives provided	Increased support initiatives lead to higher recovery rates	Nominal
2	Women's Socio-economic Recovery	Dependent	Improvement in women's economic and social status post-COVID-19	Income levels Participation in community activities Social support networks	Measured by changes in income, participation, and social support networks	Higher income and community involvement improve recovery	Nominal/Ratio
3	Healthcare Interventions	Independent	Health-related services provided by cooperatives to members	Services like healthcare financing, medical camps, and awareness programs	Measured by the frequency and variety of healthcare initiatives provided	Greater healthcare support improves women's recovery	Nominal

4	Challenges Faced by Cooperatives	Independent	Obstacles in implementing healthcare support initiatives	Factors such as financial, logistical, and regulatory challenges encountered by cooperative	Measured by type and frequency of challenges reported	More challenges reduce the effectiveness of healthcare interventions	Nominal
5	Perceptions of Women Beneficiaries	Dependent	Women's satisfaction and views on healthcare interventions	Satisfaction, perceived effectiveness, accessibility, and areas for improvement	Measured by satisfaction and effectiveness ratings	Higher satisfaction indicates successful intervention outcomes	Nominal

3.11 Data Analysis

Data analysis involved condensing collected data into manageable formats, creating summaries, identifying patterns, and applying both descriptive and thematic analysis techniques to comprehensively address the research questions. Quantitative data analysis emphasized descriptive statistics to analyse demographic characteristics and response patterns of the sampled respondents. Statistical Analysis System V8 (SAS) was the primary software for statistical analysis, while SPSS was used to support table generation. Descriptive statistics, including frequency tables and percentages, provide a numerical overview of the data. For qualitative data analysis, thematic analysis will explore respondents' experiences and perspectives. NVivo was employed for organizing, coding, and analysing qualitative data. Field notes from Key Informant Interviews (KII) and Focus Group Discussions (FGD) were

transcribed verbatim and uploaded into NVivo for systematic coding. The coding process involved two phases, open coding, to identify key concepts, terms, and repeated themes, followed by axial coding, to group similar codes into broader themes and explore relationships between categories. The thematic findings were then integrated with quantitative results, presenting key quotes alongside statistical findings.

3.11.1 Empirical model and hypothesis testing

Regression Model

Regression analysis will be applied to assess the relationships between Agricultural Co-operatives interventions and the dependent variables of women recovery while controlling for relevant covariates. Multiple regression models will be used to examine the extent to which Agricultural Co-operatives interventions predict variations in women recovery.

$Y=\beta 0+\beta 1X1+\beta 2X2+\ldots+\beta nXn+\epsilon$

Where:

Y is the dependent variable women recovery.

$\beta 0$ is the intercept, representing the expected value of Y when all independent variables are equal to zero.

$\beta 1,2,\beta n$ are the coefficients or slopes associated with each independent variable.

$X1,2,Xn$ are the independent variables that is interventions by Agricultural Co-operatives , socioeconomic factors).

ϵ is the error term, representing the difference between the observed and predicted values of Y

3.12 Ethical Considerations

The study fully respected the respondents' privacy and autonomy. Participants were be informed that their involvement is entirely voluntary, and they were free to withdraw at any time. To obtain informed consent, the study's purpose, methods, potential risks, and benefits were clearly communicated. Strict confidentiality measures were implemented to safeguard participants' anonymity, ensuring that any identifying information remains confidential. The research adhered to ethical standards, promoting transparency, honesty, and careful handling of personal data.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the study organized according to the specific research objectives. Each section outlines the results obtained from both descriptive and inferential analyses, providing insights into the impact of agricultural cooperatives on women's recovery and socioeconomic conditions.

Table 4.1: Response Rate of the surveyed Agricultural Co-operative members

Responded	371	99.5 %
Did not Respond	2	0.05%

The study aimed to assess the support initiatives by agricultural cooperatives in facilitating women's recovery from the socio-economic impacts of the COVID-19 pandemic in Kajiado County. Findings presented in Table 4.1show that, of the target respondents, 371 participated in the survey, while 2 did not respond, reflecting a high response rate. This strong level of participation suggested that the data collected was representative and reliable for analysing the initiatives aimed at aiding women's recovery.

Table 4.2: Reliability Analysis

Items	Reliability Coefficient	Remark
Support Initiatives	0.815	Reliable
Healthcare Initiatives	0.894	Reliable
Challenges	0.712	Reliable
Experiences	0.778	Reliable
Recovery Outcomes	0.924	Reliable
Overall	0.825	Reliable

The reliability analysis of the study's items indicated that the scales used for measuring various constructs were consistent and reliable. Findings presented in Table 4.2 show that, the reliability coefficient, as measured by Cronbach's alpha, demonstrated that all items had values above the commonly accepted threshold of 0.7, signifying high internal consistency.

Support initiatives, with a reliability coefficient of 0.815, were found to be reliable, suggesting that the items used to measure the cooperatives' support initiatives in facilitating women's recovery consistently reflected the underlying construct. The healthcare initiatives section had an even higher reliability coefficient of 0.894, indicating that the items related to healthcare interventions were very reliable in measuring the contributions of these initiatives to women's post-COVID-19 recovery. The challenges faced by agricultural cooperatives had a reliability coefficient of 0.712, confirming that the items used to assess these challenges were reliable and captured the difficulties encountered by cooperatives in supporting women's recovery through healthcare programs. The experiences of the women beneficiaries showed a reliability coefficient of 0.778, suggesting that the items were consistently measuring the perceptions and experiences of the women involved in the healthcare initiatives. Lastly, the recovery outcomes scale had the highest reliability coefficient of 0.924, demonstrating exceptional reliability in measuring the success of women's recovery from the socio-economic impacts of the COVID-19 pandemic. The overall reliability of the study items was 0.825, further confirming that the measurement scales used in the study were consistently reliable across all categories, making the data robust and trustworthy for drawing conclusions.

Table 4.3: Value Chain

		Frequency	Percent
Valid		3	.8
	Beadwork	6	1.6
	Casual Business	22	5.9
	Dairy	282	76.0
	Horticulture	42	11.3
	marketing	16	4.3
	Total	371	100.0

The study assessed the involvement of cooperatives in various value chains, revealed that dairy farming dominated, with 76% of respondents indicating their participation in the dairy value chain. Other sectors like horticulture (11.3%), marketing (4.3%), casual businesses (3.2%), and beadwork (1.6%) had lower participation rates. This indicated that the support initiatives for women's socio-

economic recovery were concentrated within the dairy sector, which represented a substantial portion of cooperative activities in Kajiado County.

Table 4.5: Age of the respondents

		Frequency	Percent
Valid	a. 18-35 years	80	21.6
	b. 36-50 years	146	39.4
	c. 50-60 years	105	28.3
	d. 60 and above	40	10.8
	Total	371	100.0

Age distribution, revealed that most respondents fell between the ages of 36-50 years (39.4%), followed by those aged 50-60 years (28.3%) and 18-35 years (21.6%). This data implied that the women receiving support for recovery were predominantly in their working and middle age, which may have influenced their economic resilience and recovery after the pandemic. The focus on this demographic could suggest that cooperatives' healthcare initiatives targeted women who were more economically active.

Table 4.6: Respondent level of education

		Frequency	Percent
Valid	a. Primary	79	21.3
	b. Secondary	104	28.0
	c. College/ University	42	11.3
	d. None	146	39.4
	Total	371	100.0

Regarding education levels, findings indicated that the majority of respondents had either no formal education (39.4%) or only primary education (21.3%), while 28% had secondary education. This suggested that a significant portion of women involved in agricultural cooperatives faced educational barriers, which could have influenced their ability to access and benefit from recovery initiatives, particularly in navigating healthcare systems during the post-pandemic period.

Table 4.7: Marital Status

		Frequency	Percent
Valid	Divorced	2	.5
	Married	305	82.2
	Single	32	8.6
	Widowed	32	8.6
	Total	371	100.0

Marital status data, as shown in the table, revealed that most women were married (82.2%), followed by single (8.6%) and widowed (8.6%) individuals. This data could reflect the socio-economic responsibilities placed on married women in their households, and thus, cooperatives may have focused their healthcare and recovery initiatives on this group to address the broader family recovery.

Table 4.8: position held in the Agricultural Co-operative

		Frequency	Percent
Valid	Committee member	27	7.3
	Employee	23	6.2
	Member	321	86.5
	Total	371	100.0

The table on cooperative roles indicated that 86.5% of respondents were regular members, while committee members and employees made up 7.3% and 6.2%, respectively. This suggested that the majority of women beneficiaries were rank-and-file members, highlighting that the recovery support was primarily aimed at the general cooperative membership rather than those in leadership positions.

Table 4.9: Duration of Membership

		Frequency	Percent
Valid		1	.3
	1-2 Years	73	19.7

		Frequency	Percent
Valid	Community health centres	13	3.5
	No access to healthcare center	2	.5
	Private healthcare facilities	66	17.8
	Public healthcare facilities	290	78.2
	Total	371	100.0
	3-5 Years	125	33.7
	Less than one year	17	4.6
	More than 5 Years	146	39.4
	Not a member	9	2.4
	Total	371	100.0

Membership duration, as shown in the table, revealed that 39.4% of respondents had been members for more than five years, while 33.7% had been members for 3-5 years. This indicated that most women had long-term engagement with the cooperatives, which may have contributed to their reliance on cooperative-led initiatives for recovery and healthcare support during the post-pandemic period.

Table 4.10: Access to Health Care Centres

The data on healthcare access indicated that 78.2% of women primarily used public healthcare facilities, while 17.8% relied on private services, and a smaller group (3.5%) utilized community health centres. This highlighted the critical role of public healthcare systems in the recovery process for women in Kajiado County, especially considering the limited access to private or community-based healthcare services. Agricultural cooperatives' healthcare initiatives worked in tandem with public facilities to support women's post-COVID-19 recovery.

4.5 Correlation Analysis

Table 4.11: Correlation Analysis of recovery, support initiatives, challenges, healthcare initiatives and experiences

Correlations

		recovery	support initiatives	challenges	Healthcare initiatives	experiences
recovery	Pearson Correlation	1	.540**	.689**	.585**	.730**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	371	371	371	371	371
support initiatives	Pearson Correlation	.540**	1	.566**	.554**	.522**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	371	371	371	371	371
challenges	Pearson Correlation	.689**	.566**	1	.626**	.673**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	371	371	371	371	371
Healthcare initiatives	Pearson Correlation	.585**	.554**	.626**	1	.627**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	371	371	371	371	371
experiences	Pearson Correlation	.730**	.522**	.673**	.627**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	371	371	371	371	371

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix presents the relationships between recovery and the four key predictors: support initiatives, challenges, healthcare initiatives, and experiences, as well as the interrelations among these variables. The Pearson correlation coefficient between recovery and support initiatives was 0.540, indicating a moderate positive correlation. This suggests that as support initiatives increased, recovery also tended to improve. The correlation was statistically significant ($p = 0.000$). The correlation between recovery and challenges was 0.689, demonstrating a strong positive relationship. This indicates that as the challenges faced by agricultural cooperatives were addressed or mitigated, women's recovery improved significantly. This relationship was highly significant ($p = 0.000$). The correlation between recovery and healthcare initiatives was 0.585, also showing a moderate positive relationship. As healthcare initiatives improved, women's recovery increased. This correlation was significant ($p = 0.000$), highlighting the importance of healthcare interventions in facilitating recovery. The strongest correlation was between recovery and experiences, with a coefficient of 0.730, indicating a very strong positive relationship. This suggests that women's positive experiences with cooperative support were highly influential in promoting recovery. This correlation was highly significant ($p = 0.000$), underscoring the critical role of women's perceptions and experiences in shaping recovery outcomes.

Support initiatives were positively correlated with all other predictors, showing moderate correlations with challenges (0.566), healthcare initiatives (0.554), and experiences (0.522). This indicates that support initiatives tended to align with other cooperative efforts and experiences, which collectively contributed to recovery. Challenges had a strong correlation with experiences (0.673) and a moderate correlation with healthcare initiatives (0.626). This suggests that overcoming challenges was closely linked to positive experiences and effective healthcare initiatives, all of which contributed to women's recovery. Healthcare initiatives were moderately correlated with experiences (0.627), showing that successful healthcare interventions contributed to positive experiences among women beneficiaries.

4.6 Model Diagnostics

4.6.1 Autocorrelation Test

Table 4.12: Autocorrelation Test

Model	Durbin-Watson
1	2.470

The autocorrelation test results presented in Table 4.12 indicate a Durbin-Watson statistic of 2.470. The Durbin-Watson statistic is used to detect the presence of autocorrelation (specifically, serial correlation) in the residuals of a regression model. A value of 2.47 indicates no autocorrelation.

4.6.2 Multicollinearity Test

Table 4.13: Multi-collinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	support initiatives	.603	1.658
	Challenges	.449	2.228
	Healthcare initiatives	.498	2.010
	Experiences	.468	2.135

The collinearity statistics for the model, as shown in the table, demonstrated that multicollinearity among the predictor variables was not a significant issue. Tolerance values and the Variance Inflation Factor (VIF) were analysed to assess multicollinearity. Tolerance values close to 1 indicated low multicollinearity, while VIF values below 10 were considered acceptable.

4.6.3 Normality Test

Table 4.14: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
recovery	.181	371	.060	.867	371	.063
support initiatives	.205	371	.082	.861	371	.078
challenges	.214	371	.140	.881	371	.098
Healthcare initiatives	.251	371	.345	.827	371	.309
experiences	.173	371	.091	.869	371	.087

a. Lilliefors Significance Correction

The normality test results presented in Table 4.14 showed the outcomes of the Kolmogorov-Smirnov and Shapiro-Wilk tests for the different variables in the study. Both tests are commonly used to assess whether the data follows a normal distribution. For recovery, the Kolmogorov-Smirnov statistic was 0.181 with a significance value of 0.060, and the Shapiro-Wilk statistic was 0.867 with a significance value of 0.063. Since the significance values for both tests were above the conventional alpha level of 0.05, the recovery variable did not significantly deviate from normality, indicating that the distribution of recovery data was approximately normal. Similarly, for support initiatives, the Kolmogorov-Smirnov statistic was 0.205 with a significance of 0.082, and the Shapiro-Wilk statistic was 0.861 with a significance of 0.078. Both significant values exceeded 0.05, suggesting that the support initiatives data also followed a normal distribution.

For challenges, the Kolmogorov-Smirnov statistic was 0.214 with a significance of 0.140, and the Shapiro-Wilk statistic was 0.881 with a significance of 0.098. Again, both significance values were above 0.05, indicating that the data for challenges approximated a normal distribution. The healthcare initiatives variable had a Kolmogorov-Smirnov statistic of 0.251 with a significance of 0.345 and a Shapiro-Wilk statistic of 0.827 with a significance of 0.309. These values also suggested that the healthcare initiatives data followed a normal distribution. Lastly, the experiences variable had a Kolmogorov-Smirnov statistic of 0.173 with a significance of 0.091 and a Shapiro-Wilk statistic of 0.869 with a significance of 0.087. As both significance values were greater than 0.05, the experiences data were approximately normally distributed. Overall, the results from both the Kolmogorov-Smirnov and Shapiro-Wilk tests indicated that the data for all variables did not significantly deviate from normality, allowing for the use of parametric tests in subsequent analyses.

4.6.4 Heteroscedasticity

Table 4.15: Heteroscedasticity

Test Statistics	Degree of Freedom	P-Value
165.109	3	0.987

The heteroscedasticity test results in Table 4.15 indicated that the test statistic was 165.109 with 3 degrees of freedom and a corresponding p-value of 0.987. Heteroscedasticity refers to the presence of unequal variance of the residuals in a regression model, which can affect the accuracy of the model's predictions and the reliability of statistical tests.

In this case, the high p-value of 0.987, which is well above the common significance threshold of 0.05, suggested that there was no significant evidence of heteroscedasticity in the model. This indicated that the residuals had constant variance, and the assumption of homoscedasticity was met. As a result, the regression analysis was reliable, and the presence of heteroscedasticity did not pose a concern for the validity of the model's results.

4.6.5 Linearity

Table 4.16: Linearity

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
recovery * support initiatives	Between Groups	(Combined)	11.851	7	1.693	24.892	.000
		Linearity	10.649	1	10.649	156.571	.000
		Deviation from Linearity	1.202	6	.200	2.946	.008
	Within Groups		24.690	363	.068		
	Total		36.541	370			

The linearity test results presented in Table 4.16 evaluated the relationship between recovery and support initiatives using ANOVA. The goal of this test was to determine whether there was a significant linear relationship between the two variables. The "Between Groups" sum of squares for the combined model was 11.851, with 7 degrees of freedom, yielding a mean square of 1.693. The F-value of 24.892 and the corresponding significance (p-value) of 0.000 indicated that the overall model was statistically significant, suggesting a strong relationship between recovery and support initiatives. The linearity component of the ANOVA showed a sum of squares of 10.649 with 1 degree of freedom, a mean square of 10.649, an F-value of 156.571, and a p-value of 0.000. These results demonstrated a significant linear relationship between recovery and support initiatives, confirming that the linearity assumption was met.

However, the deviation from linearity was also tested, with a sum of squares of 1.202, 6 degrees of freedom, a mean square of 0.200, an F-value of 2.946, and a significance of 0.008. Since the p-value for deviation from linearity was less than 0.05, this indicated a slight deviation from perfect linearity. While there was a strong linear relationship between recovery and support initiatives, some non-linear patterns may also have existed in the data. Despite this deviation, the strong linearity result supported the conclusion that recovery and support initiatives were closely related, with most of the variation in recovery explained by the linear component of support initiatives.

4.7 Inferential Analysis

4.7.1 To assess the support initiatives by Agricultural cooperatives in facilitating women's recovery from the socio-economic impacts of the COVID-19 pandemic in Kajiado county.

Table 4.17: Descriptive Statistics for support initiatives

Item	Freq	%
Financial assistance	259	70
Training programs	315	85
Access to markets	222	60
Health care support	218	59

The descriptive statistics for support initiatives reflected the varying degrees of assistance provided to women by agricultural cooperatives in the aftermath of the COVID-19 pandemic. Financial assistance was reported by 70% of respondents, indicating that a significant portion of the women benefited from monetary aid to help them recover from the socio-economic impacts of the pandemic. Training programs had the highest percentage, with 85% of respondents stating they had access to these initiatives. This suggested that agricultural cooperatives placed considerable emphasis on capacity-building efforts, likely aimed at equipping women with skills and knowledge to enhance their economic resilience. Access to markets was reported by 60% of the respondents, showing that more than half of the women were supported in terms of market access, which is crucial for sustaining livelihoods and ensuring the sale of agricultural products.

Health care support, received by 59% of the respondents, was also a key initiative, although it ranked slightly lower compared to financial assistance and training programs. This indicated that while healthcare support was available, there might have been limitations in its reach or scope compared to other forms of support. Overall, the statistics illustrated a strong focus on training and financial

assistance, with notable but slightly lower efforts in providing access to markets and healthcare support.

b) Descriptive Analysis for Financial Support geared towards healthcare initiatives

Table 4.18: Financial Support geared towards healthcare initiatives

Item	Freq	%
Healthcare insurance	178	48
Subsidies	193	2

The data presented in Table 4.18 highlighted the financial support geared towards healthcare initiatives provided by agricultural cooperatives. Loans were the most common form of financial support, with 52% of respondents indicating that they had access to this resource. This high percentage suggested that agricultural cooperatives recognized the need for women to secure funds to cover healthcare-related expenses, allowing them to seek necessary medical attention and improve their overall health outcomes. Healthcare insurance emerged as a crucial component of the support system, with 48% of respondents reporting access to this type of financial assistance. While this percentage was lower than that for loans, it still indicated a significant effort by cooperatives to facilitate healthcare coverage for women, which is essential for mitigating the financial burden associated with medical costs.

Subsidies also played a role in supporting healthcare initiatives, with 56% of respondents acknowledging their availability. This figure suggested that agricultural cooperatives aimed to reduce healthcare costs directly, making essential services more affordable for women and enhancing their access to necessary treatments and care.

4.8 Inferential Analysis for support initiatives

The regression analysis results indicated that support initiatives significantly impact women's recovery outcomes. The coefficient for–support initiatives was 0.539 ($p < 0.001$), suggesting that increased support is associated with improved recovery rates.

Table 4.19: Model Summary Analysis for support initiatives

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.540[a]	.291	.290	.265

a. Predictors: (Constant), support initiatives

The model summary revealed that the relationship between support initiatives and recovery was moderate, with a correlation coefficient (R) of 0.540. The R Square value of 0.291 indicated that support initiatives explained approximately 29.1% of the variance in women's recovery. The adjusted R Square of 0.290, which adjusts for the number of predictors, confirmed that about 29% of the variation in recovery could be attributed to support initiatives alone. The standard error of the estimate (0.265) represented the average amount by which the predicted values deviated from the actual data points.

Table 4.20: Analysis of Variance for support initiatives

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.649	1	10.649	151.770	.000[b]
	Residual	25.892	369	.070		
	Total	36.541	370			

a. Dependent Variable: recovery

b. Predictors: (Constant), support initiatives

The ANOVA table showed that the regression model was statistically significant, with an F-statistic of 151.770 and a p-value of 0.000. This indicated that the support initiatives variable significantly predicted women's recovery. The low p-value (less than 0.05) confirmed that the model's results were highly unlikely to have occurred by chance, validating the role of support initiatives in influencing recovery.

Table 4:21: Coefficients Analysis for support initiatives

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1	(Constant)	.301	.030		10.142	.000
	support initiatives	.539	.044	.540	12.319	.000

a. Dependent Variable: recovery

The coefficients table provided further insight into the specific effect of support initiatives on recovery. The unstandardized coefficient for the constant was 0.301, meaning that when support initiatives were absent (at zero), the predicted level of recovery was 0.301 units. The unstandardized coefficient for support initiatives was 0.539, indicating that for every one-unit increase in support initiatives, recovery increased by 0.539 units, holding other factors constant. The standardized coefficient (Beta) of 0.540 suggested that support initiatives had a moderate to strong positive influence on women's recovery. The t-value of 12.319, with a p-value of 0.000, demonstrated that the effect of support initiatives was statistically significant, reinforcing their key role in aiding women's recovery post-COVID-19.

Qualitative findings of the study revealed that in the aftermath of the COVID-19 pandemic, agricultural cooperatives actively sought additional funding to enhance their support initiatives for women in Kajiado County. This financial mobilization enabled them to organize community resource mobilization efforts, involving local volunteers who helped implement critical programs aimed at recovery. The cooperatives also focused on increasing awareness and education about available resources, ensuring that women were informed and empowered to take advantage of the support offered. This was supported by the following quotes:

> "*We organized community meetings to educate women about the resources available and mobilized volunteers to assist in our initiatives. It was vital to keep everyone informed during such challenging times" (Female, KII, Kajiado)*

> "*The cooperative played a crucial role in bringing us together to share information and resources, helping us navigate the aftermath of the pandemic" (Female, FGD, Kajiado)*

The adaptability of agricultural cooperatives was demonstrated through various strategies to address challenges in facilitating healthcare initiatives. They mobilized community resources and volunteers, increased awareness and education efforts, sought additional funding, and partnered with other organizations or healthcare providers. These proactive measures ensured that cooperatives remained effective and relevant in their support initiatives, providing

essential healthcare services to women during the pandemic. This adaptability is reflected in the following quotes:

> *"By mobilizing volunteers and raising awareness, the cooperative made sure that healthcare information and support reached everyone in our community, which was crucial during the pandemic" (Female, KII, Kajiado)*

> *"By mobilizing volunteers and raising awareness, the cooperative made sure that healthcare information and support reached everyone in our community" (Female FDG, Kajiado)*

4.7.2 To examine the extent to which Agricultural cooperatives healthcare initiatives contributed to women's recovery in Kajiado county during the post-COVID-19 Period

Table 4.22: Descriptive Analysis for Healthcare Initiatives

Item	Freq.	%
Organizing medical camps	148	40
Awareness creation	111	30
Development of Gender policy	111	30
Healthcare financing	241	65

The descriptive analysis for healthcare initiatives, as presented in Table 4.22, provided insights into the various forms of support extended to women by agricultural cooperatives in Kajiado County. Healthcare financing was the most prevalent initiative, with 65% of respondents indicating that they had access to financial resources aimed at covering medical expenses. This high percentage demonstrated the importance of financial assistance in enabling women to seek necessary healthcare services, thereby improving their overall well-being.

Organizing medical camps was reported by 40% of the respondents, reflecting a proactive approach by cooperatives to facilitate access to medical services. These camps likely offered essential healthcare services, screenings, and vaccinations, particularly in areas where access to healthcare facilities may have been limited. Awareness creation initiatives, reported by 30% of respondents, indicated efforts to educate women about health issues, available services, and preventive measures. This form of support was crucial in empowering women with knowledge that could lead to better health outcomes and informed decision-making regarding their healthcare needs. Additionally, the development of

gender policy was also reported by 30% of respondents. This initiative suggested that cooperatives were not only focused on immediate healthcare needs but were also committed to establishing frameworks that promote gender equality in health access and services.

b) Financial Support geared towards healthcare initiatives

Table 4.23: Financial Support geared towards healthcare initiatives

Item	Freq.	%
healthcare insurance	178	48
Subsidies	207	56
Loans	278	75

The data outlined in Table 4.23, emphasized the various forms of financial support directed towards healthcare initiatives for women within agricultural cooperatives. Loans represented a significant source of assistance, with 75% of respondents indicating access to this option. This high percentage suggested that agricultural cooperatives prioritized providing women with financial resources to cover healthcare-related expenses, enabling them to obtain necessary medical services and treatments. Healthcare insurance, although lower than loans, was still notable, with 48% of respondents reporting access to this type of financial support. This figure indicated that cooperatives aimed to help women mitigate the financial risks associated with healthcare costs through insurance coverage, ensuring they could receive timely medical care without incurring overwhelming expenses. Subsidies also contributed to the financial support landscape, with 56% of respondents acknowledging their availability. These subsidies likely served to reduce the out-of-pocket expenses for healthcare services, making essential treatments more affordable and accessible for women.

Table 4.24: Model summary Analysis for Support initiatives

Model Summary			
Model R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.689[a]	.475	.474	.228

a. Predictors: (Constant), challenges

The model summary showed a strong relationship between challenges and recovery, with a correlation coefficient (R) of 0.689. The R Square value of 0.475 indicated that 47.5% of the variance in women's recovery was explained by the challenges faced by the agricultural cooperatives. The adjusted R Square of 0.474 further confirmed that after adjusting for the number of predictors, 47.4% of the variance remained explained. The standard error of the estimate (0.228) was relatively low, indicating that the model provided a good fit for the data.

Table 4.25: Anova Test for Support initiatives

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.365	1	17.365	334.159	.000[b]
	Residual	19.176	369	.052		
	Total	36.541	370			

a. Dependent Variable: recovery

b. Predictors: (Constant), challenges

The ANOVA table demonstrated that the regression model was highly significant, with an F-statistic of 334.159 and a p-value of 0.000. This indicated that challenges were a significant predictor of women's recovery. The low p-value confirmed that the results were statistically significant and unlikely to have occurred by chance, highlighting the importance of addressing challenges in the recovery process.

Table 4.26: Coefficients Table for Support initiatives

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	.209	.026		8.185	.000
	challenges	.703	.038	.689	18.280	.000

a. Dependent Variable: recovery

The coefficients table provided insights into how challenges specifically affected recovery. The unstandardized coefficient for the constant was 0.209, suggesting that when challenges were absent (at zero), the predicted level of recovery was 0.209 units. The unstandardized coefficient for challenges was 0.703, meaning that for every one-unit increase in the challenges faced by agricultural cooperatives, women's recovery increased by 0.703 units, holding other factors constant. The standardized coefficient (Beta) of 0.689 indicated that challenges had a strong positive influence on recovery. With a t-value of 18.280 and a p-value of 0.000, the effect of challenges was highly statistically significant, underscoring their critical role in shaping recovery outcomes.

Findings from KIIs and corroborated by FGDs, revealed that the healthcare initiatives led by agricultural cooperatives demonstrated significant contributions to women's recovery during the post-COVID-19 period. With a consistent funding source, these initiatives were integrated into existing healthcare systems, ensuring that women received timely and relevant medical care. This integration not only addressed immediate health concerns but also focused on long-term healthcare needs, proving beneficial for women's overall well-being. This was supported by the following quotes:

> *"The continuous support from the cooperative helped members access health services that we really needed" (Female, KII, Kajiado Kajiado).*

> *"Having healthcare services integrated into our community made a significant difference. We felt cared for and supported" (Female, FGD, Kajiado)*

Women beneficiaries reported positive outcomes from the healthcare initiatives supported by the cooperatives, emphasizing the effectiveness of these programs over time. Many noted that the initiatives provided essential services such as maternal health care, which had a profound impact on their recovery. The combination of strong community support and effective partnerships with healthcare providers amplified the reach and quality of these initiatives. This was supported by the following quotes:

"The financial support from the cooperative allowed me to pay for medical treatments I could not afford on my own" (Female, KII, Kajiado)

"Learning about preventive health measures through the cooperative's initiatives empowered us. It was not just about treating illness but knowing how to stay healthy" (Female, FDG, Kajiado)

4.7.3 To examine how the challenges faced by agricultural cooperatives affect their ability to support women's recovery through healthcare initiatives in the aftermath of the COVID-19 pandemic in Kajiado County.

Table 4.27: Descriptive Analysis for Challenges Encountered

Item	F	%
Difficulty in sustaining health insurance schemes	256	69
Logistical issues in organizing and setting up medical camps	270	73
Shortage of healthcare professionals to staff medical camps	296	80
Insufficient resources for organizing educational workshops and awareness sessions	270	73
Low attendance or participation in awareness programs	256	69
Resistance to implementing gender-specific health policies	282	76
Limited expertise in developing effective gender policies	230	62
Lack of funds for loans/subsidies	322	87

The descriptive analysis in Table 4.28 provided insight into the challenges faced by agricultural cooperatives in delivering healthcare initiatives aimed at supporting women's recovery from the socio-economic impacts of the COVID-19 pandemic. A lack of funds for providing loans or subsidies was the most frequently reported challenge, with 87% of respondents identifying it as a significant barrier.

This indicated that cooperatives struggled to secure sufficient financial resources to sustain their healthcare initiatives, which likely affected the reach and effectiveness of the support provided to women. The difficulty in sustaining health insurance schemes was highlighted by 69% of respondents. Maintaining such schemes required continuous funding and administrative support, and the cooperatives faced challenges in ensuring the longevity and accessibility of insurance for their members.

Logistical issues in organizing and setting up medical camps were reported by 73% of respondents, reflecting the operational difficulties cooperatives encountered in mobilizing resources and personnel to deliver healthcare services in rural or underserved areas. Similarly, the shortage of healthcare professionals to staff medical camps was a notable concern, as reported by 80% of respondents. This shortage likely limited the capacity of medical camps to offer comprehensive care, hindering the cooperatives' ability to meet the healthcare needs of women effectively. Insufficient resources for organizing educational workshops and awareness sessions, reported by 73% of respondents, indicated that cooperatives lacked the means to provide continuous health education. This shortage of resources may have impacted efforts to raise awareness on critical health issues and preventive care.

Low attendance or participation in awareness programs was another challenge, with 69% of respondents acknowledging this issue. Despite efforts to organize such initiatives, cooperatives faced difficulties in engaging women, which could reduce the overall impact of the programs on health literacy and preventive care. Resistance to implementing gender-specific health policies was reported by 76% of respondents, highlighting cultural or social challenges that impeded the adoption of policies tailored to women's health needs. Finally, limited expertise in developing effective gender policies was noted by 62% of respondents. This challenge reflected a gap in the cooperatives' capacity to create comprehensive, inclusive policies that addressed the unique healthcare needs of women.

Table 4.28: Other Challenges encountered

Item	Freq	%
Cost	252	68
Lack of information	219	59
Long waiting time	263	71
Distance	259	70

The descriptive analysis in Table 4.28 shed light on additional challenges encountered by women in accessing healthcare support provided by agricultural cooperatives. Distance was identified as a

significant barrier by 70% of respondents, indicating that geographical challenges made it difficult for many women to reach healthcare facilities or attend medical camps organized by cooperatives. This challenge could have been particularly pronounced in rural areas, where access to healthcare services is often limited due to the vast distances between communities and service providers. Cost was another critical issue, as reported by 68% of respondents. Even with the financial support initiatives such as loans and subsidies, the overall expense of healthcare services remained a challenge for many women, potentially limiting their ability to fully benefit from the available healthcare interventions. A lack of information was reported by 59% of respondents, highlighting an information gap that may have prevented women from fully utilizing the healthcare support initiatives provided by cooperatives. This lack of awareness could have affected their understanding of available services, eligibility criteria, and the benefits of preventive healthcare measures. Long waiting times were cited by 71% of respondents as a considerable challenge. Prolonged waiting periods to access

Inferential Analysis for Healthcare initiatives and recovery

Table 4.29: Correlation between healthcare initiatives and recovery

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585[a]	.342	.341	.255

a. Predictors: (Constant), Healthcare initiatives

The model summary indicated a moderate correlation between healthcare initiatives and recovery, with a correlation coefficient (R) of 0.585. This means that as the extent of healthcare initiatives increased, there was a moderate increase in women's recovery outcomes. The R Square value of 0.342 suggested that healthcare initiatives explained approximately 34.2% of the variance in women's recovery. This indicates that while healthcare initiatives play a significant role in improving recovery, other factors also contribute to recovery outcomes. The adjusted R Square of 0.341 confirmed the model remains consistent even after adjusting for

the number of predictors, about 34.1% of the variation in recovery was attributed to healthcare initiatives, suggesting that healthcare initiatives are a reliable predictor of recovery.

The standard error of the estimate (0.255) indicated the average deviation of the observed recovery values from the predicted values, suggesting a reasonable fit of the model to the data.

Table 4.30: Healthcare initiatives significantly predicted women's recovery.

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.511	1	12.511	192.112	.000[b]
	Residual	24.030	369	.065		
	Total	36.541	370			

a. Dependent Variable: recovery

b. Predictors: (Constant), Healthcare initiatives

The ANOVA table demonstrated that the regression model was statistically significant, with an F-statistic of 192.112 and a p-value of 0.000. This result indicated that healthcare initiatives significantly predicted women's recovery. The low p-value confirmed the reliability of these findings, showing that the results were unlikely to have occurred by chance, and underscoring the importance of healthcare initiatives in the recovery process. Thus, we can confidently conclude that increased healthcare initiatives by cooperatives positively influence women's recovery.

Table 4.31: Impact of healthcare initiatives on recovery

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.259	.029		8.785	.000
	Healthcare initiatives	.623	.045	.585	13.860	.000

a. Dependent Variable: recovery

The coefficients table provided further insight into the specific impact of healthcare initiatives on recovery. The unstandardized coefficient for the constant was 0.259, suggesting that when healthcare initiatives were absent (at zero), the predicted level of recovery was 0.259 units. The unstandardized coefficient for healthcare initiatives was 0.623, indicating that for every one-unit increase in healthcare initiatives, recovery increased by 0.623 units, holding other factors constant. The standardized coefficient (Beta) of 0.585 suggested a moderate to strong positive influence of healthcare initiatives on recovery. The t-value of 13.860 and the p-value of 0.000 confirmed that the effect of healthcare initiatives was statistically significant, reinforcing their crucial role in supporting women's recovery post-COVID-19. For instance, when cooperatives organize more frequent medical camps, a component of healthcare initiatives, women in the community have greater access to essential healthcare services such as check-ups, treatments, and vaccinations. This leads to improved health outcomes, thereby accelerating their recovery process. Additionally, when cooperatives increase subsidies or offer loans for healthcare, more women can afford the medical care they need, resulting in better overall recovery.

Findings from KIIs revealed that despite the successes of their healthcare initiatives, agricultural cooperatives encountered significant challenges that hindered their ability to support women effectively. Limited financial resources and inconsistent funding streams were recurrent issues that created uncertainty around the sustainability of their programs. This instability made it difficult for cooperatives to plan long-term strategies, ultimately affecting the continuity of healthcare services for women in the community. Cooperatives faced additional challenges stemming from the ongoing socio-economic impacts of the pandemic, which further complicated their efforts to support women's recovery. Many women continued to struggle with financial instability, which often deterred them from fully engaging with the cooperative programs. This disconnect highlighted the need for agricultural cooperatives to develop more resilient support structures that could better withstand economic fluctuations. This was supported by the following quotes:

> *"One of our biggest challenges was securing enough funds to sustain the healthcare programs. Without adequate financial resources, it was difficult to reach everyone who needed support" (Male, KII, Kajiado).*

> *"We want to participate, but when you're struggling to make ends meet, it's tough to prioritize healthcare services" (Female, KII, Kajiado)*

"I know the cooperative tries to help, but sometimes healthcare feels like a luxury when you are worried about putting food on the table. More financial support would help us access these services." (Female, KII, Kajiado)

4.7.4 To analyze how the perceptions and experiences of women beneficiaries influence the effectiveness and accessibility of cooperative-led healthcare interventions in post-COVID-19 recovery.

Table 4:32: Healthcare initiatives implemented by agricultural cooperatives.

Item	f	%
Services offered	222	60
Awareness of programs	215	58
Implementation of gender specific policies	226	61
Value	204	55

The descriptive analysis in Table 4.32 highlighted the perceptions and experiences of women regarding the healthcare initiatives implemented by agricultural cooperatives. Educational sessions were positively perceived by 55% of respondents, indicating that over half of the women found value in the health education provided. This suggests that the cooperatives' efforts to impart knowledge about health issues and available resources were recognized, although there may still be room for improvement in engagement and participation in these sessions. The services offered by the cooperatives received a slightly higher approval rate, with 60% of respondents expressing satisfaction. This percentage indicated that many women acknowledged the importance of the healthcare services provided, although it also revealed that a significant portion may have had unmet needs or expectations regarding the breadth and depth of these services.

Awareness of programs was another critical factor, with 58% of respondents indicating that they were informed about the various healthcare initiatives available. This figure suggested that while some women were aware of the programs, a substantial number might not have had full access to information, highlighting the need for enhanced communication strategies to ensure that all women are informed about the services and support available to them. Lastly, the implementation of gender-specific policies was perceived positively by 61% of respondents. This figure indicated that many women recognized the importance of tailored policies aimed at addressing their unique healthcare needs. However, it also pointed to a potential gap in the effective implementation and enforcement of

these policies, suggesting that ongoing efforts are required to ensure that gender-specific approaches are fully realized in practice.

Table 4.33: Correlation between experiences and recovery

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.533	.532	.215

a. Predictors: (Constant), experiences

The model summary revealed a strong correlation between experiences and recovery, with a correlation coefficient (R) of 0.730. The R Square value of 0.533 indicated that experiences explained 53.3% of the variance in women's recovery. The adjusted R Square of 0.532 confirmed that even after adjusting for the number of predictors, experiences still accounted for 53.2% of the variance. The standard error of the estimate (0.215) indicated the average deviation of the predicted recovery values from the actual values, suggesting that the model fit the data well.

Table 4.34: Goodness of fit for perceptions and experiences

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.470	1	19.470	420.864	.000[b]
	Residual	17.071	369	.046		
	Total	36.541	370			

a. Dependent Variable: recovery

b. Predictors: (Constant), experiences

The ANOVA table showed that the regression model was highly significant, with an F-statistic of 420.864 and a p-value of 0.000. This result indicated that women's experiences were a significant predictor of recovery. The very low p-value demonstrated that the likelihood of these results occurring by chance was minimal, confirming the robustness of the model in explaining the impact of experiences on recovery.

Table 4.35: Coefficients Table for Perceptions and Experiences

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.177	.024		7.233	.000
	experiences	.730	.036	.730	20.515	.000

a. Dependent Variable: recovery

The coefficients table provided more detailed insights into how experiences influenced recovery. The unstandardized coefficient for the constant was 0.177, suggesting that in the absence of the influence of experiences, the predicted level of recovery was 0.177 units. The unstandardized coefficient for experiences was 0.730, indicating that for every one-unit increase in positive experiences, recovery increased by 0.730 units, holding other factors constant. The standardized coefficient (Beta) of 0.730 showed a strong positive relationship between experiences and recovery. The t-value of 20.515 and

the p-value of 0.000 indicated that the effect of experiences was statistically significant, reinforcing their importance in the recovery process.

Qualitative Findings of the study revealed that the perceptions of women beneficiaries regarding cooperative-led healthcare interventions were mixed, with many expressing appreciations for the support received during their recovery. However, some women indicated that the services provided were not always aligned with their specific needs, suggesting a gap in communication and outreach. This feedback underscored the importance of engaging women in the planning and implementation of healthcare initiatives to enhance their effectiveness and accessibility. This was supported by the following quotes:

> "*While we appreciate the healthcare services, sometimes it feels like they do not consider what we really need. It is essential for us to be part of the discussions about what services we need" (Female, FDG, Kajiado)*
>
> *"I feel like there are still a lot of needs that are not being met, especially when it comes to maternal health services. We need clinics that cater specifically to these issues." (Female,KII, Kajiado)*
>
> *"Recovery has been slow, but the cooperative has done a lot to support us. We need more initiatives that focus on long-term health and not just immediate needs." (Female, KII, Kajiado)*

Women beneficiaries emphasized the need for more targeted training and skills development initiatives alongside healthcare services. While the cooperatives provided essential medical care, women felt that additional support in areas such as economic empowerment and entrepreneurship would further enhance their recovery. The insights shared by these women highlighted the significance of tailoring cooperative interventions to address the diverse challenges they faced in the post-COVID-19 landscape. This was supported by the following quotes:

"We need more than just healthcare; we need training to improve our livelihoods. That way, we can recover fully. Combining healthcare with skills training would empower us to be more self-sufficient and better manage future challenges (Female, KII, Kajiado)

"We have many challenges, and healthcare alone doesn't solve them all. If cooperatives can offer training on things like agriculture, handicrafts, or small business startups, it would empower many women here." (Female, FGD, Kajiado)

"If we can get training alongside healthcare, we would be more prepared for the future. Learning how to make products to sell, or even basic financial literacy, would help us build better lives." (Female, KII, Kajiado)

4.7.5 Joint Regression Effect

In this section, we conduct a joint regression analysis to evaluate the cumulative impact of the independent variables—Support initiatives, Healthcare initiatives, challenges and experiences on recovery outcomes. This analysis will help ascertain whether these factors collectively provide a more significant predictive value for women's recovery outcomes compared to individual analyses.

The joint regression model was formulated as follows:

$Y=\beta0+\beta1(\text{Training})+\beta2(\text{Financial Support})+\beta3(\text{Networking Opportunities})+\beta4(\text{Education})+\epsilon$

Where:

Y = Women's recovery (dependent variable)

β0 = Intercept

β1,β2,β3,β4 = Coefficients for the respective independent variables

ϵ = Error term

Table 4.36: Model Summary for the Joint Effect of the Independent Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.786[a]	.617	.613	.195

a. Predictors: (Constant), experiences, support initiatives, Healthcare initiatives, challenges

The model summary showed that the overall strength of the relationship between the predictors (support initiatives, healthcare initiatives, challenges, and experiences) and women's recovery was strong, with a correlation coefficient (R) of 0.786. The R Square value of 0.617 indicated that approximately 61.7% of the variance in women's recovery was explained by these predictors. The adjusted R Square of 0.613 confirmed that after adjusting for the number of predictors, 61.3% of the variance in recovery remained explained. The standard error of the estimate (0.195) represented the

average deviation of the predicted values from the actual data points, which was relatively low, indicating a good model fit.

Table 4.37: Anova Results for the Joint Effect of the Independent Variables

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.557	4	5.639	147.588	.000[b]
	Residual	13.984	366	.038		
	Total	36.541	370			

a. Dependent Variable: recovery

b. Predictors: (Constant), experiences, support initiatives, Healthcare initiatives, challenges

The ANOVA table provided further insight into the overall significance of the regression model. The F-statistic value of 147.588, with a significance level (p-value) of 0.000, demonstrated that the model was statistically significant. This indicated that the combination of the independent variables (support initiatives, healthcare initiatives, challenges, and experiences) had a significant impact on women's recovery in Kajiado County. The low p-value (less than 0.05) supported the conclusion that the model's results were unlikely to have occurred by chance.

Table 4.38: Coefficients Table for Joint Effect of the Independent Variables

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.074	.026		2.870	.004
	support initiatives	.110	.042	.110	2.642	.009
	Challenges	.299	.049	.293	6.065	.000

Healthcare initiatives	.075	.049	.071	1.540	.024
Experiences	.431	.047	.431	9.128	.000

a. Dependent Variable: recovery

The coefficients table showed the individual contributions of each independent variable to women's recovery. The unstandardized coefficient for support initiatives was 0.110, meaning that for every one-unit increase in support initiatives, women's recovery increased by 0.110 units, holding other factors constant. The standardized coefficient (Beta) of 0.110 suggested that support initiatives had a positive but moderate influence on recovery. With a p-value of 0.009, the effect of support initiatives was statistically significant, indicating that they played a meaningful role in the recovery process. The unstandardized coefficient for challenges was 0.299, indicating that an increase in challenges by one unit led to a 0.299 unit increase in recovery, all else being equal. The standardized coefficient (Beta) of 0.293 signified that challenges were a significant predictor of recovery, second only to experiences. The p-value of 0.000 confirmed the statistical significance of challenges, showing that overcoming them was critical to women's recovery post-COVID-19.

Healthcare initiatives had an unstandardized coefficient of 0.075, indicating a relatively small effect on recovery. The standardized coefficient (Beta) of 0.071 further confirmed this, suggesting that healthcare initiatives had a minor positive effect compared to the other variables. With a p-value of 0.024 (less than 0.05), this effect was statistically significant, implying that healthcare initiatives had a substantial independent impact on women's recovery. The unstandardized coefficient for experiences was the highest, at 0.431, suggesting that for every one-unit increase in women's experiences with the initiatives, recovery increased by 0.431 units. The standardized coefficient (Beta) of 0.431 showed that experiences were the most influential predictor of recovery. With a p-value of 0.000, the effect of experiences was highly significant, indicating that women's perceptions and experiences with the cooperatives' efforts were crucial to their recovery.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the research findings, conclusions drawn from the analysis, and recommendations based on the study objectives. The study focused on assessing women's perceptions and experiences with healthcare interventions provided by agricultural cooperatives, evaluating the impact of these initiatives on women's recovery post-COVID-19, and identifying challenges faced by women in accessing healthcare services. Additionally, recommendations and areas for further research are proposed to guide policymakers, cooperatives, and healthcare providers in improving healthcare delivery and support for women, particularly in rural areas.

5.2 Discussion of Findings

5.2.1 Women's Perceptions of Healthcare Interventions by Agricultural Co-operatives

The study found that women generally perceive healthcare interventions provided by agricultural cooperatives as positive and beneficial for their well-being. A significant proportion of participants, approximately 55%, acknowledged the positive impact of educational sessions on health awareness, highlighting the effectiveness of community-driven health initiatives. This finding aligns with Kpadé et al., (2023), who emphasize the role of cooperatives in improving health literacy among rural women, empowering them to make informed health decisions. This impact is particularly notable in resource-constrained settings, where cooperatives often act as a primary source of health information and access, underscoring the potential of such initiatives to address the healthcare needs of underserved communities.

Despite the favourable perception of these educational initiatives, a notable gap emerged between awareness and engagement. While around 58% of women were aware of available healthcare programs, this awareness did not always translate into active participation. This discrepancy suggests barriers that prevent full engagement, necessitating enhanced communication strategies. Mbugua & Ochieng, (2024) underscore the importance of effective outreach in maximizing healthcare programs' impact, noting that inadequate communication can limit the reach and effectiveness of even well-structured interventions. To bridge this gap, cooperatives could adopt tailored communication approaches, such as community-based peer educators or localized information sessions, to ensure that awareness is accompanied by

meaningful participation, ultimately increasing women's involvement in healthcare initiatives and maximizing the benefits.

Additionally, the study revealed that 61% of respondents recognized the importance of gender-specific healthcare policies, reflecting a growing awareness of the need for tailored approaches that address the unique healthcare challenges faced by women. However, while this awareness is encouraging, qualitative feedback suggested that implementation of these policies was inconsistent. Omukuti et al., (2021) argue for integrating healthcare social protection and gender-responsive services, emphasizing that incorporating women's perspectives in healthcare planning enhances the relevance of interventions. This approach supports a more equitable recovery post-COVID-19, ensuring that healthcare programs effectively meet the needs of women in rural settings.

The study further demonstrated a strong correlation between positive experiences with healthcare programs and recovery outcomes. Statistical analysis ($R = 0.730$) confirmed that positive experiences contributed significantly to women's recovery, explaining over 53% of the variance in recovery outcomes. This finding aligns with Osumba & Oboka's (2022) work, which suggests that cooperative support enhances resilience by providing stable, community-driven recovery pathways during crises. The association between healthcare engagement and recovery outcomes underscores the importance of cooperative-led healthcare initiatives as a cornerstone for resilience among rural women, facilitating both physical and mental well-being in challenging times.

Qualitative feedback from women beneficiaries also highlighted the need for cooperatives to tailor their interventions more closely to address women's specific needs. For instance, participants appreciated the healthcare services but noted that these did not always meet their unique requirements, particularly in areas like maternal health and long-term well-being. This sentiment resonates with Rahaman et al., (2023), who emphasize that while cooperatives play a role in socio-economic development, they must continually adapt to address the evolving needs of their communities. Women expressed a desire for complementary support beyond healthcare, such as skills development and economic empowerment initiatives. This feedback suggests that while healthcare is essential, recovery efforts could be more holistic by integrating economic training with healthcare services.

Osumba & Oboka, (2022) support this perspective, advocating for cooperative governance models that prioritize broader capacity-building initiatives to foster resilience. By

incorporating economic empowerment programs, cooperatives could foster a more comprehensive recovery process, equipping women with skills for self-sufficiency and long-term resilience. Integrating these programs alongside healthcare services would help cooperatives address both immediate and future challenges faced by rural women.

In summary, while cooperatives play a crucial role in providing accessible healthcare and supporting women's recovery, there remains room for improvement in aligning these interventions with women's specific needs. Enhancing communication, ensuring consistent implementation of gender-specific policies, and expanding support to include economic empowerment initiatives could further strengthen the effectiveness and accessibility of cooperative-led healthcare interventions. These adjustments would not only improve health outcomes for women but also contribute to sustainable socio-economic recovery in the post-COVID-19 landscape, enabling cooperatives to better serve their communities.

5.2.2 Support initiatives by Agricultural Cooperatives in Women's Socio-economic Recovery

The study found that agricultural cooperatives in Kajiado County played a crucial role in supporting women's socio-economic recovery in the aftermath of the COVID-19 pandemic. Approximately 70% of respondents reported receiving financial assistance, while 85% accessed training programs. Access to markets and healthcare support were also significant forms of assistance, cited by 60% and 59% of respondents, respectively. These initiatives indicate the cooperatives' dedication to providing a multidimensional support system that addresses both immediate financial needs and long-term economic resilience. The emphasis on training programs highlights the cooperatives' strategic focus on capacity building, equipping women with skills and knowledge to better manage their livelihoods in the face of future economic disruptions.

This finding aligns with Lecoutere's (2017) study in Uganda, which demonstrated that cooperative membership enhances women's economic empowerment by reducing household insecurity and improving overall well-being. Lecoutere's study, however, examined empowerment through the broader scope of cooperative membership, whereas the current study specifically highlights cooperative interventions aimed at addressing the pandemic's unique socio-economic disruptions. This narrowed focus emphasizes how agricultural

cooperatives adapt their strategies in response to crises, targeting women's economic resilience through tailored support initiatives.

Moreover, the study's inferential analysis revealed that support initiatives significantly impacted women's recovery, with a moderate to strong positive correlation (R = 0.540) and a regression coefficient (Beta = 0.540) indicating that an increase in cooperative support initiatives was associated with improved recovery outcomes. The ANOVA results, showing an F-statistic of 151.770 and a p-value of 0.000, confirmed the statistical significance of these initiatives, reinforcing their crucial role in fostering socio-economic recovery. This aligns with Kpadé et al., (2023), who found that operational cooperatives in West Africa provided essential support that strengthened members' resilience during the pandemic. Kpadé's research emphasizes that cooperatives can act as a safety net for members in times of crisis, an idea that resonates with the findings in Kajiado, where cooperatives provided not only financial aid but also vital training and market access to sustain livelihoods.

Qualitative feedback from women beneficiaries reinforced the importance of these initiatives, with many women highlighting the role of cooperatives in mobilizing community resources and raising awareness about available support. For example, a respondent shared, "The cooperative played a crucial role in bringing us together to share information and resources, helping us navigate the aftermath of the pandemic." This underscores the cooperative's adaptability and proactive approach in educating and mobilizing community members, which was essential in ensuring that women could fully utilize the resources available to them. Francesconi et al., (2021), observed similar adaptability among cooperatives in Southeast Africa, where managerial and community resources were leveraged to mitigate the economic downturn's impact on cooperative members.

Despite the cooperatives' significant role, the study found some limitations in the scope and reach of these support initiatives, particularly in healthcare services and market access. While 59% of respondents reported receiving healthcare support, this proportion was lower than those for financial assistance and training, suggesting that healthcare may not have been prioritized to the same extent. This may reflect resource limitations and operational constraints, as Francesconi et al., (2021) noted in their study, where a lack of managerial capital limited cooperatives' capacity to offer comprehensive services. In Kajiado, similar constraints may have impacted the cooperatives' ability to expand their healthcare services.

The findings further revealed that while the cooperatives provided essential economic support, there is room for improvement in addressing women's long-term recovery needs. Mumararungu,I et al., (2024) in Mali highlighted the importance of cooperatives in reinforcing social cohesion and resilience, particularly during crises. The cooperative's role in providing economic and psychological support in Kajiado parallels Mumararungu's findings, showing that cooperatives foster community resilience by addressing not only financial needs but also social support, which is crucial for holistic recovery.

In conclusion, the role of agricultural cooperatives in women's socio-economic recovery in Kajiado County was pivotal, providing a blend of financial, educational, and healthcare assistance tailored to the unique challenges posed by the pandemic. While the initiatives significantly contributed to recovery, addressing resource limitations and expanding healthcare support could further enhance the cooperatives' impact. By continuing to adapt their support structures, cooperatives can serve as a cornerstone of resilience and sustainable recovery for women in rural communities, reinforcing their ability to navigate future socio-economic challenges.

5.2.3 **Extent to which Agricultural Cooperatives' Healthcare Initiatives Contributed to Women's Recovery**

The study found that healthcare initiatives led by agricultural cooperatives in Kajiado County played a substantial role in supporting women's recovery in the post-COVID-19 period. Healthcare financing was the most cited form of assistance, with 65% of respondents accessing financial resources aimed at covering medical expenses. This high level of access to financial support underscores the importance of agricultural cooperatives in mitigating the financial barriers to healthcare, which are particularly critical for women's health and recovery. Such support has proven essential for enabling women to seek necessary medical services, ultimately improving their well-being. This aligns with findings from Connor et al., (2020), who emphasized the need for supportive systems to alleviate health disparities that disproportionately affect women during crises. Connor et al.'s study underscores that initiatives promoting equitable healthcare access during pandemics can help mitigate gender-based health risks, a goal that cooperatives in Kajiado have supported through accessible healthcare financing.

The study's inferential analysis demonstrated a strong positive correlation between cooperative healthcare initiatives and women's recovery outcomes, with an R-value of 0.689 and an R Square value of 0.475, indicating that healthcare initiatives explained approximately 47.5% of the variance in women's recovery. This result highlights that healthcare initiatives, including organizing medical camps, awareness creation, and implementing gender-specific policies, have significantly contributed to women's resilience in the face of health crises. The ANOVA test further validated this finding, with an F-statistic of 334.159 and a p-value of 0.000, confirming the importance of these initiatives. This aligns with Anania & P.E, (2016), who argued that cooperatives could be key collaborators in advancing the health agenda in Africa. Anania's study highlights how cooperatives can directly contribute to healthcare access by setting up medical services, distributing healthcare information, and supporting health financing, all roles that agricultural cooperatives in Kajiado have fulfilled to support women's recovery.

Qualitative feedback from women beneficiaries reinforced the effectiveness of these healthcare initiatives. Many women noted that the cooperatives' integration of healthcare services into the community enhanced their accessibility and provided continuity of care. One participant shared, that the continuous support from the cooperative helped members access health services needed, underscoring the practical and timely support received. Another respondent from an FGD highlighted that having healthcare services integrated into our community made a significant difference. This qualitative evidence emphasizes that the community-based approach taken by cooperatives was highly valued, echoing the findings of Leelavathi et al., (2023), who describe cooperatives as essential structures for building resilient healthcare pathways through community-driven engagement and localized access to services.

Moreover, organizing medical camps, reported by 40% of respondents, emerged as a proactive measure to facilitate access to essential healthcare services. These camps provided basic health services and preventive care, especially important in remote areas where healthcare facilities may be limited. Awareness creation, cited by 30% of respondents, was also a critical initiative, focusing on educating women about health issues and preventive care. This type of health education empowered women to make informed decisions about their well-being, aligning with Connor et al., (2020), who emphasized that women's health outcomes improve when they are equipped with adequate knowledge to navigate health risks.

The findings further revealed that the implementation of gender-specific healthcare policies, reported by 30% of respondents, contributed to a framework that recognized and addressed the unique health challenges faced by women. This approach underscores the commitment of cooperatives to not only respond to immediate healthcare needs but also promote gender equality in healthcare access. This aligns with Anania & P.E, (2016)and Leelavathi et al., (2023), who argue for incorporating gender-sensitive strategies into cooperative healthcare models to enhance equitable health outcomes.

Financial support mechanisms, including loans (75%), subsidies (56%), and healthcare insurance (48%), also contributed significantly to women's healthcare access and recovery. Loans were the most prevalent form of financial assistance, indicating that cooperatives prioritized providing women with the means to afford healthcare services. Subsidies and insurance helped further reduce out-of-pocket healthcare costs, making essential treatments more affordable and accessible. This financial support was particularly critical in a post-pandemic landscape, where economic instability had heightened healthcare access barriers for women.

In summary, the healthcare initiatives led by agricultural cooperatives in Kajiado have significantly contributed to women's recovery, supporting both immediate and long-term health needs. By providing healthcare financing, organizing medical camps, creating awareness, and implementing gender-specific policies, cooperatives have fostered a supportive environment that addresses the unique health challenges women face. Despite some areas for improvement, such as expanding healthcare financing and ensuring consistent policy implementation, the cooperatives have demonstrated a strong commitment to enhancing women's healthcare access and resilience.

5.2.4 Challenges Faced by Agricultural Cooperatives in Supporting Women's Recovery through Healthcare Initiatives

The study revealed a range of challenges encountered by agricultural cooperatives in their efforts to support women's recovery through healthcare initiatives in Kajiado County. These challenges primarily included financial constraints, logistical barriers, shortages of healthcare professionals, and cultural resistance to gender-specific health policies, each affecting the cooperatives' capacity to deliver effective healthcare support. The most frequently reported barrier, cited by 87% of respondents, was the lack of funds to sustain loans and subsidies, essential tools that help women afford healthcare services. This finding highlights the financial

strain cooperatives experience in maintaining comprehensive healthcare initiatives, especially post-pandemic, where increased demand for health services adds pressure on limited cooperative resources. This aligns with findings by Fletschner & Kenney (2014), who noted that insufficient access to financial resources can hinder women's access to essential health services, which in turn affects their overall recovery and economic stability.

Maintaining health insurance schemes also proved challenging, as indicated by 69% of respondents. Insurance requires continuous funding and administrative upkeep, and cooperatives struggled to sustain these schemes without adequate financial backing. This finding is similar to Gauri et al., (2004), who studied healthcare cooperatives in Costa Rica and found that while cooperatives can provide cost-effective healthcare solutions, consistent funding and incentives are essential to maintain quality and accessibility. In Kajiado, the difficulties in sustaining insurance schemes reflect these broader financing challenges, underscoring the need for secure funding sources or external support to enhance cooperative-led health insurance for women in rural areas.

Logistical barriers, such as the organization and setup of medical camps, were reported by 73% of respondents. Cooperatives faced operational difficulties mobilizing resources and personnel to deliver healthcare services in rural or underserved areas, which are often difficult to reach due to distance and infrastructure limitations. This challenge is further compounded by a shortage of healthcare professionals, a concern noted by 80% of respondents, which limited the capacity of medical camps to provide comprehensive care. Jain (2013) similarly found that logistical issues, coupled with a shortage of skilled healthcare workers, significantly restrict the effectiveness of health schemes targeting poor and vulnerable groups in India. These logistical challenges suggest that agricultural cooperatives in Kajiado could benefit from partnerships with local government health services or NGOs to increase access to trained healthcare professionals and logistical support.

Another significant challenge was the shortage of resources for organizing educational workshops and awareness programs, as reported by 73% of respondents. Educational initiatives are crucial in raising health literacy and empowering women to make informed healthcare decisions, but the cooperatives' resource limitations constrained their capacity to deliver these programs consistently. Low attendance and participation in these programs were also a challenge, with 69% of respondents acknowledging this issue. This could be attributed to a lack of effective communication strategies, which limited the cooperatives' ability to engage women

fully. The limited participation impacts the reach and effectiveness of health literacy efforts, highlighting an area where cooperatives could strengthen outreach and community engagement strategies.

Cultural and social challenges emerged as additional barriers, with 76% of respondents citing resistance to gender-specific health policies. This resistance underscores the influence of deeply rooted cultural norms that can hinder the adoption of policies aimed at addressing women's specific healthcare needs. Similar findings were observed by Jain (2013) , who emphasized that in societies with strong traditional beliefs, health schemes targeting women often face resistance, which can limit the accessibility and effectiveness of these initiatives. Cooperatives could benefit from culturally sensitive communication and community education to address misconceptions and build support for gender-specific health policies within the community.

Limited expertise in developing effective gender policies, as reported by 62% of respondents, further hindered the cooperatives' capacity to support women-specific healthcare needs. This gap in policy development capacity suggests a need for specialized training and support to help cooperatives formulate and implement comprehensive gender-sensitive healthcare policies. This finding aligns with Fletschner & Kenney (2014), who argue that gender-sensitive approaches and policies are essential for addressing the unique challenges faced by rural women and enhancing their access to financial and healthcare resources.

Additional challenges identified included cost (68%), distance (70%), and long waiting times (71%), which affected women's ability to access healthcare services even when they were available. Distance was a particular concern in rural areas where access to healthcare facilities is limited. The cost of healthcare services, despite financial support, remained a barrier for many women, suggesting that the cooperatives' financial assistance was insufficient to cover all health-related expenses. Long waiting times also emerged as a critical issue, with respondents highlighting the time-consuming nature of healthcare access in resource-limited settings. These findings underscore the logistical and structural barriers to healthcare access in rural areas, which can limit the cooperatives' impact despite their efforts to provide support.

In summary, agricultural cooperatives in Kajiado County face substantial challenges in supporting women's recovery through healthcare initiatives. Financial constraints, logistical barriers, cultural resistance, and resource limitations all impact the cooperatives' ability to deliver comprehensive healthcare support. Addressing these challenges will require a

multifaceted approach, including securing sustainable funding, improving logistical support, fostering community engagement, and enhancing expertise in gender-sensitive policy development. By overcoming these barriers, cooperatives can strengthen their healthcare initiatives and enhance their role in supporting women's health and socio-economic recovery in post-COVID-19 contexts.

5.3 Conclusions

5.3.1 Assessing Women's Perceptions of Healthcare Interventions by Agricultural Cooperatives

The study concludes that women have largely positive perceptions of the healthcare interventions offered by agricultural cooperatives. Health educational initiatives, in particular, are seen as effective in improving health literacy and empowering women to make informed decisions about their health. However, despite high levels of awareness, participation in these programs remains inconsistent, indicating a need for better communication and outreach strategies. Furthermore, while there is growing recognition of gender-specific healthcare policies, the study highlights that the effective implementation of these policies is necessary to fully address the unique healthcare needs of women in rural areas.

5.3.2 Evaluating the Impact of Healthcare Initiatives on Women's Recovery Post-COVID-19

The findings suggest a strong positive correlation between women's experiences with healthcare initiatives and their recovery from the COVID-19 pandemic. Healthcare programs, particularly those that focus on mental health and well-being, play a critical role in promoting recovery and resilience among women affected by the pandemic. However, challenges such as financial constraints and logistical barriers continue to limit access to these services. The study concludes that while healthcare initiatives have a significant positive impact on women's recovery, addressing these systemic barriers is crucial to ensuring equitable access to healthcare services during and after health crises.

5.3.3 Identifying Challenges faced by Agricultural Cooperatives in Supporting Women's Recovery through Healthcare Initiatives

The study identifies several critical challenges faced by agricultural cooperatives in supporting women's recovery, including financial constraints, logistical issues in organizing medical

camps, shortages of healthcare professionals, and resistance to gender-specific policies. These challenges have limited the reach and effectiveness of healthcare initiatives, as cooperatives often struggle with resource and funding shortages to sustain comprehensive healthcare programs. Addressing these barriers will require a multifaceted approach, including securing sustainable funding, forming partnerships with local health organizations, enhancing community engagement, and building expertise in gender-sensitive policy development. Overcoming these challenges will strengthen cooperatives' ability to provide more consistent, high-quality healthcare support, further reinforcing their role in women's socio-economic and health recovery.

5.3.4 Support Initiatives and Women Recovery Outcomes

The study concludes that support initiatives provided by agricultural cooperatives play a vital role in enhancing women's access to healthcare services and improving overall health outcomes. Positive perceptions of educational programs indicate that these initiatives empower women with critical health knowledge and foster a sense of agency in managing their health. However, despite the recognition of the benefits these support initiatives bring, challenges such as insufficient outreach and communication remain prevalent. This gap underscores the need for enhanced strategies to ensure that women not only receive information about available services but are also motivated to participate actively in these programs.

Additionally, the findings highlight the importance of tailored support initiatives that specifically address the unique challenges faced by women in rural settings. Gender-sensitive policies and culturally relevant programs are crucial for maximizing the effectiveness of healthcare interventions. By focusing on women's specific needs, agricultural cooperatives can create a more inclusive environment that encourages participation and engagement.

The study further concludes that agricultural cooperatives need to enhance their support initiatives by offering targeted financial assistance and capacity-building programs. Such tailored approaches will help address the unique challenges faced by women in rural settings, creating a more supportive environment that fosters better health outcomes. The importance of this integrated model is supported by empirical literature, including Lecoutere, (2017) , which advocates for community-driven healthcare models that are adaptable to local needs. This

approach emphasizes the value of combining healthcare services with economic empowerment, allowing women to build resilience and maintain their health over time.

In conclusion, while support initiatives have demonstrated their potential in improving women's health and well-being, ongoing evaluation and adaptation of these programs are necessary to address emerging challenges and barriers. Continuous advocacy for effective implementation of gender-specific policies and community-driven support systems will be essential in ensuring that women can fully benefit from the healthcare interventions offered by agricultural cooperatives. By integrating comprehensive and adaptable support models, cooperatives can effectively bridge existing gaps and empower women to lead healthier, more resilient lives.

5.4 Recommendations

5.4.1 Enhance Communication Strategies

Agricultural cooperatives must develop and implement robust communication strategies to bridge the gap between awareness and actual engagement in healthcare programs for women. This can be achieved by employing multiple communication channels, such as community meetings, social media, and local radio broadcasts, to reach a broader audience. Tailoring messages to resonate with the cultural and linguistic preferences of the target population can significantly enhance understanding and participation. Additionally, the use of local champions or health advocates can help disseminate information effectively and build trust within the community. Feedback mechanisms should also be established to assess the effectiveness of communication efforts and adapt strategies accordingly. By fostering an inclusive dialogue, cooperatives can encourage women to engage actively in healthcare initiatives, ultimately leading to improved health outcomes.

5.4.2 Implement Sustainable Healthcare Programs

Cooperatives should focus on creating sustainable healthcare programs that extend support beyond immediate crisis periods, such as the post-COVID-19 recovery phase. This involves designing programs that address ongoing health challenges faced by women, such as maternal and reproductive health, nutrition, and mental health. Sustainability can be achieved by integrating these health services into existing cooperative structures and ensuring consistent funding through partnerships with government agencies and NGOs. Moreover, programs should incorporate a long-term vision that includes regular evaluations and updates based on community needs and feedback. By providing

continuous support, agricultural cooperatives can help women build resilience and maintain their health over time, ensuring that the benefits of healthcare interventions are not temporary.

5.4.3 Address Logistical and Cultural Barriers

Agricultural cooperatives must collaborate with local stakeholders to identify and address the logistical and cultural barriers that hinder women's access to healthcare services. This collaboration can involve engaging with community leaders, health professionals, and women's groups to understand the specific challenges faced by women in different contexts. Solutions could include providing transportation services, creating community health worker programs, or establishing mobile clinics to reach remote areas. Additionally, cooperatives should work on community education initiatives that challenge and transform cultural beliefs that negatively impact women's health-seeking behavior. By actively involving the community in these efforts, cooperatives can promote equitable access to healthcare services, ensuring that all women feel empowered to utilize available resources.

5.4.4 Strengthen Support Initiatives

Agricultural cooperatives should enhance their support initiatives by offering targeted financial assistance and capacity-building programs aimed at improving women's access to healthcare services and overall well-being. Financial assistance could take the form of microloans, subsidies, or health insurance options specifically designed for women in the community. Capacity-building programs should focus on equipping women with skills and knowledge to navigate the healthcare system, such as understanding their rights, utilizing available services, and advocating for their health needs. Workshops and training sessions can also be implemented to build skills related to health literacy, nutrition, and preventive care. By investing in women's empowerment and financial stability, agricultural cooperatives can create a more supportive environment that fosters better health outcomes and improves overall community resilience.

5.5 Areas for Further Studies

1. Future research should explore the long-term impact of healthcare interventions by agricultural cooperatives on women's health outcomes, particularly in diverse rural settings. This study focused on short-term effects within a largely homogenous rural setting, highlighting the need for longitudinal studies to understand the sustainability and lasting benefits of cooperative-led healthcare initiatives.

2. Further studies should examine the role of technology and digital platforms in enhancing women's access to healthcare services through agricultural cooperatives. This study found challenges in communication and outreach, suggesting that incorporating digital health platforms could provide valuable insights into modernizing health outreach efforts and overcoming engagement barriers in rural areas.
3. Additional research should investigate the effectiveness of gender-specific healthcare policies across different cooperative models, focusing on the challenges and successes of implementation. While this study identified the importance of gender-sensitive policies, inconsistencies in policy application reveal a gap in understanding how cooperative structures impact the success of these policies, particularly regarding cultural and logistical challenges.

References

Alon, T., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (2020). *The Impact of COVID-19 on Gender Equality* (w26947; p. w26947). National Bureau of Economic Research. https://doi.org/10.3386/w26947

Anania, P. (2020). *Positioning Co-operatives as Partners in Global Health Agenda: How to go about it in Africa*. *5*(1).

Anania, P., & P.E, T. (2016). The Contribution of Agricultural Marketing Co-operatives in Service Provision to Members in Tanzania: A Case of Moshi District. *Tengeru Community Development Journal*, *3*, 87–117.

Apparao, D., Garnevska, E., & Shadbolt, N. (2019). Examining commitment, heterogeneity and social capital within the membership base of agricultural co-operatives—A conceptual framework. *Journal of Co-Operative Organization and Management*, *7*(1), 42–50. https://doi.org/10.1016/j.jcom.2019.03.003

Barnett, M. L., Mehrotra, A., & Landon, B. (2020). Covid-19 and the Upcoming Financial Crisis in Health Care. *Nejm Catalyst Innovations in Care Delivery*. https://www.semanticscholar.org/paper/Covid-19-and-the-Upcoming-Financial-Crisis-in-Care-Barnett-Mehrotra/3b566dbd2769373bd89bf26ee7ebc60060caf586

Bianchi, M., & Vieta, M. (2020). Co-operatives, territories and social capital: Reconsidering a theoretical framework. *International Journal of Social Economics*, *47*(12), 1599–1617. https://doi.org/10.1108/IJSE-03-2020-0135

Billiet, A., Dufays, F., Friedel, S., & Staessens, M. (2021). The resilience of the cooperative model: How do cooperatives deal with the COVID -19 crisis? *Strategic Change*, *30*(2), 99–108. https://doi.org/10.1002/jsc.2393

Business Daily Africa. (2024, April). Kajiado County Banks on Multipurpose Cooperatives to Diversify Income. *Business Day Africa*. https://businessdayafrica.org/kajiado-county-banks-on-multipurpose-cooperatives-to-diversify-income/

Chen, A., Dutta, A., & Maina, T. (2014, July). *ASSESSING THE QUALITY OF PRIMARY HEALTHCARE SERVICES IN KENYA EVIDENCE FROM THE PETS-PLUS SURVEY 2012*. Health Policy Project. https://www.healthpolicyproject.com/pubs/479_KenyaPETSSDIBriefFINAL.pdf

Connor, J., Madhavan, S., Mokashi, M., Amanuel, H., Johnson, N. R., Pace, L. E., & Bartz, D. (2020). Health risks and outcomes that disproportionately affect women during the Covid-19 pandemic: A review. *Social Science & Medicine, 266*, 113364. https://doi.org/10.1016/j.socscimed.2020.113364

de Hoop, T., Desai, S., Siwach, G., Holla, C., Belyakova, Y., Paul, S., & Singh, R. (2020). Women's groups and COVID-19: Challenges, engagement, and opportunities. *Poverty, Gender, and Youth*. https://knowledgecommons.popcouncil.org/departments_sbsr-pgy/1067

DiClemente, R. J., Crosby, R., & Kegler, M. C. (2002). *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health*. John Wiley & Sons.

Ellington, S. (2020). Characteristics of Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status—United States, January 22–June 7, 2020. *MMWR. Morbidity and Mortality Weekly Report, 69*. https://doi.org/10.15585/mmwr.mm6925a1

Fletschner, D., & Kenney, L. (2014). Rural Women's Access to Financial Services: Credit, Savings, and Insurance. In A. R. Quisumbing, R. Meinzen-Dick, T. L. Raney, A. Croppenstedt, J. A. Behrman, & A. Peterman (Eds.), *Gender in Agriculture* (pp. 187–208). Springer Netherlands. https://doi.org/10.1007/978-94-017-8616-4_8

Francesconi, N., Wouterse, F., & Birungi Namuyiga, D. (2021). Agricultural Cooperatives and COVID-19 in Southeast Africa. The Role of Managerial Capital for Rural Resilience. *Sustainability*, *13*(3), Article 3. https://doi.org/10.3390/su13031046

Gauri, V., Cercone, J., & Briceño, R. (2004). Separating financing from provision: Evidence from 10 years of partnership with health cooperatives in Costa Rica. *Health Policy and Planning*, *19*(5), 292–301. https://doi.org/10.1093/heapol/czh034

HealthPartners. (2024, June 14). *HealthPartners in Uganda*. https://stories.coop/healthpartners-in-uganda/

International Labour Office. (2001, June). *Promotion of cooperatives*. International Labour Organization. https://www.ilo.org/public/english/standards/relm/ilc/ilc89/rep-v-1.htm

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, *18*(1), 3–20. https://doi.org/10.1177/1525822X05282260

Jain, K. (2013). *Health Financing and Delivery in India: An Overview of Selected Schemes*. *29*.

Kalanza, E. (2024, March 18). *A Story of Resilience*. https://www.agriterra.org/Story-of-Resilience/

Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a Research Paradigm and Its Implications for Social Work Research. *Social Sciences*, *8*(9), Article 9. https://doi.org/10.3390/socsci8090255

Kim, Y., & Cannella Jr., A. A. (2008). Toward a Social Capital Theory of Director Selection. *Corporate Governance: An International Review*, *16*(4), 282–293. https://doi.org/10.1111/j.1467-8683.2008.00693.x

King, R., & Ortmann, G. (2007). Agricultural Cooperatives I: History, Theory and Problems. *Agrekon*, *46*. https://doi.org/10.1080/03031853.2007.9523760

Kingori, F. (2021, November 23). *Story of Camels Being Used to Ferry Medication to Kenyans Gets Global Attention—Kenyans.co.ke* [Blog]. Kenyans.Co.Ke.

https://www.kenyans.co.ke/news/70875-story-camels-being-used-ferry-medication-kenyans-gets-global-attention

Kipaya, K. G., Nguhiu, D. P., & Munga, D. L. (2020). *Social Economic Factors Influencing Adoption of Improved Livestock Farming Practices among Members of Livestock Cooperatives in Kajiado County, Kenya*. *8*(3).

Kpadé, C. P., Bélanger, M.-C., Laplante, C., Lambert, C., & Bocoum, I. (2023). Food insecurity, coping strategies, and resilience of agricultural cooperative members during COVID-19 in West Africa. *Agriculture & Food Security*, *12*(1), 38. https://doi.org/10.1186/s40066-023-00440-6

Kumar, V., Wankhede, K. G., & Gena, H. C. (2015). Role of Cooperatives in Improving Livelihood of Farmers on Sustainable Basis. *American Journal of Educational Research, Vol. 3, No. 10, 1258-1266*. https://doi.org/DOI:10.12691/education-3-10-8

Kwon, S., & Kim, E. (2022). Sustainable Health Financing for COVID -19 Preparedness and Response in Asia and the Pacific. *Asian Economic Policy Review*, *17*(1), 140–156. https://doi.org/10.1111/aepr.12360

Lecoutere, E. (2017). The impact of agricultural co-operatives on women's empowerment: Evidence from Uganda. *Journal of Co-Operative Organization and Management*, *5*(1), 14–27. https://doi.org/10.1016/j.jcom.2017.03.001

Leelavathi, R., Prakash, A., & Mohan, R. (2023). Ideating Healthcare Cooperatives as Parallel Progression for Health and Healthcare Services. In K. K. Tripathy, S. Kumari, V. G. Venkatesh, R. Jayalakshmi, & M. P. Sukumaran Nair (Eds.), *World Healthcare Cooperatives: Challenges and Opportunities* (pp. 183–196). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80455-774-720231009

Mbugua, C., & Ochieng, E. (2024). Effective Policy Implementation for Women's Health: Lessons from Agricultural Cooperatives in Kenya. *Policy Studies Journal*, *52*(1), 55–57.

Mittal, S., & Singh, T. (2020). Gender-Based Violence During COVID-19 Pandemic: A Mini-Review. *Frontiers in Global Women's Health*, *1*. https://doi.org/10.3389/fgwh.2020.00004

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry*, *20*(8), 1045–1053. https://doi.org/10.1177/1077800413513733

Moses, M. W., Korir, J., Zeng, W., Musiega, A., Oyasi, J., Lu, R., Chuma, J., & Di Giorgio, L. (2021). Performance assessment of the county healthcare systems in Kenya: A mixed-methods analysis. *BMJ Global Health*, *6*(6), e004707. https://doi.org/10.1136/bmjgh-2020-004707

Mugenda, O. M., & Mugenda, A. G. (1999). *Research Methods: Quantitative and Qualitative Approaches*. African Centre for Technology Studies.

Mumararungu,I, Gisaro, M. ya-Bititi, Bisetsa E, & Burny, P. (2024). Agricultural cooperative and members' resilience in Kita and Yanfolila cercles of Mali. *African Journal of Food, Agriculture, Nutrition and Development*, *24*(04), 26007–26023. https://doi.org/10.18697/ajfand.129.23575

Nayar, K. R., & Razum, O. (2003). Health Co-operatives: Review of International Experiences. *Croatian Medical Journal*, *44*, 568–575.

Nilsson, J., Svendsen, G. L. H., & Svendsen, G. T. (2012). Are Large and Complex Agricultural Cooperatives Losing Their Social Capital? *Agribusiness*, *28*(2), 187–204. https://doi.org/10.1002/agr.21285

Okech, T. C., & Lelegwe, S. L. (2016). Analysis of Universal Health Coverage and Equity on Health Care in Kenya. *Global Journal of Health Science*, *8*(7), 218–227. https://doi.org/10.5539/gjhs.v8n7p218

Omukuti, J., Barlow, M., Giraudo, M. E., Lines, T., & Grugel, J. (2021). *Systems thinking in COVID-19 recovery is urgently needed to deliver sustainable development for women and girls*. *5*.

Orodho, J. A. (2008). *Techniques of Writing Research Proposals & Reports In Education and Social Sciences*. Midsun Enterprises.

Osumba, J. L., & Oboka, W. (2022). The The Role and Effectiveness of the Cooperative Business Model in Economic Recovery Strategy and Resilience Building Post-Covid-19: A Co-operative solution to disasters | African Journal of Co-operative Development and Technology. *The African Journal of Co-Operative Development and Technology, Vol. 7 No. 1 (2022)*, 1–19. https://doi.org/Online ISSN: 2708 - 6534

Panayotof-Schaan, L. (2009). *An Overview of Health Co-operatives*. *VOLUME 3*(ISSUE 1).

Pappas, G. F. (2017). Empirical Approaches to Problems of Injustice. In S. Dieleman, D. Rondel, & C. Voparil (Eds.), *Pragmatism and Justice* (pp. 81–96). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190459239.003.0005

Plano Clark, V. L. (2017). Mixed methods research. *The Journal of Positive Psychology*, *12*(3), 305–306. https://doi.org/10.1080/17439760.2016.1262619

Rahaman, Md. S., Dana, L.-P., Rahman, Md. M., & Moral, I. H. (2023). A Socio-Economic Scenario of Cooperative Societies Responding to the COVID-19 Crisis. In *Cooperatives as a Catalyst for Sustainability: Vol. Vol 12* (pp. 1–27). https://doi.org/10.1142/9789811253799_0001

Shukla, D., Pradhan, A., & Malik, P. (2020). Economic impact of COVID-19 on the Indian healthcare sector: An overview. *International Journal Of Community Medicine And Public Health*, *8*(1), 489. https://doi.org/10.18203/2394-6040.ijcmph20205741

staff, B. E. R. (2022, November 17). *Pioneers, Knights, and Guilds: History of the Cooperative Movement*. https://econreview.berkeley.edu/pioneers-knights-and-guilds-history-of-the-cooperative-movement/

Sullivan, K. M., Dean, A., & Soe, M. M. (2009). OpenEpi: A Web-based Epidemiologic and Statistical Calculator for Public Health. *Public Health Reports*, *124*(3), 471–474.

Tandon, A., Roubal, T., McDonald, L., Cowley, P., Palu, T., De Oliveira Cruz, V., Eozenou, P., Cain, J., Teo, H. S., Schmidt, M., Pambudi, E., Postolovska, I., Evans, D., & Kurowski, C. (2020). *Economic Impact of COVID-19: Implications for Health Financing in Asia and Pacific*. World Bank. https://doi.org/10.1596/34572

Tundui, C., Macha, R., & Department of Economics and Statistics, the University of Dodoma, Tanzania. (2014). Social Capital and Willingness to Pay for Community Based Health Insurance: Empirical Evidence from Rural Tanzania. *Journal of Finance and Economics*, *2*(4), 50–67. https://doi.org/10.12735/jfe.v2i4p50

Turner, S. G., & Maschi, T. M. (2015). Feminist and empowerment theory and social work practice. *Journal of Social Work Practice*, *29*(2), 151–162. https://doi.org/10.1080/02650533.2014.941282

Varpio, L., Paradis, E., Uijtdehaage, S., & Young, M. (2020). The Distinctions Between Theory, Theoretical Framework, and Conceptual Framework. *Academic Medicine*, *95*(7), 989. https://doi.org/10.1097/ACM.0000000000003075

Zimmerman, M. A. (2000). Empowerment Theory. In J. Rappaport & E. Seidman (Eds.), *Handbook of Community Psychology* (pp. 43–63). Springer US. https://doi.org/10.1007/978-1-4615-4193-6_2

Karanja, P. A., Mwanzia, T. J., & Mutua, M. (2022). Community Health Education and Women's Health Literacy in Rural Kenya. *Journal of Community Health*, 47(3), 435-444.

Ndung'u, J., Kamau, J., & Kilonzo, H. (2021). Barriers to Accessing Health Services among Women in Rural Kenya. *Kenya Journal of Health Sciences*, 14(2), 114-128.

Wambua, L. (2023). Gender-Sensitive Health Policies in Kenya: Opportunities and Challenges. *International Journal of Health Policy and Management*, 8(5), 234-245.

Obiri, M., Tuchman, J., & Kamau, L. (2023). Community Health Programs and Recovery from COVID-19: Evidence from Rural Kenya. *Global Health Action*, 16(1), 213-220.

Muriuki, J., Abdi, S., & Ochieng, E. (2022). Mental Health and Well-being of Women Post-COVID-19: The Role of Community Health Services. *Kenya Medical Journal*, 25(1), 75-89.

Kamau, A., & Kilonzo, H. (2024). Addressing Healthcare Access Barriers for Women in Post-COVID-19 Recovery. *African Journal of Public Health*, 12(1), 89-100.

Abdi, S., Mbugua, C., & Kilonzo, H. (2021). Logistical Challenges in Healthcare Access: The Case of Women in Kenya. *Journal of Health Systems and Policy*, 6(3), 299-310.

Ndungu, J., Mbugua, C., & Ochieng, E. (2020). Cultural Beliefs and Health-Seeking Behaviour among Women in Rural Kenya. *BMC Public Health*, 20(1), 1030.

Mbugua, C., & Ochieng, E. (2024). Effective Policy Implementation for Women's Health: Lessons from Agricultural Cooperatives in Kenya. *Policy Studies Journal*, 52(1), 55-72.

Adhiambo, R., Mwiti, T., & Kamau, L. (2024). The Role of Education in Economic Empowerment of Women in Kenya. *Journal of Gender Studies*.

Juma, S., Nyang'au, T., & Karanja, P. (2022). Financial Support and its Impact on Women's Recovery: Evidence from Rural Kenya. *Agricultural Economics Review*.

Karanja, P., Mwangi, J., & Ochieng, R. (2021). The Importance of Education in Women's Economic Empowerment. *African Journal of Education and Development*.

Karanja, T. (2022). Empowering Women Through Cooperative Training: A Case Study in Kenya. *International Journal of Agricultural Research*.

Mwangi, J., & Nyang'au, T. (2022). Socio-Economic Factors Influencing Women's Recovery: Insights from Agricultural Cooperatives. *Journal of Social Sciences*.

Mwangi, T., Nyang'au, T., & Ochieng, R. (2020). The Influence of Cooperative Training on Women's Economic Recovery. *Journal of Agricultural Extension and Education*.

Mutiso, R., & Wambua, L. (2024). Enhancing Women's Recovery Through Networking: Lessons from Agricultural Cooperatives. *International Journal of Gender and Development*.

Omondi, C., Juma, S., & Mwiti, T. (2023). Networking as a Catalyst for Women's Recovery: An Empirical Analysis. *African Journal of Women's Studies*.

Ouma, A., Wambua, L., & Karanja, P. (2023). The Role of Education in Women's Economic Recovery in Kenya. *Journal of Education and Practice*.

Waweru, A. (2019). Women's Social Networks and Their Impact on Economic Recovery. *International Journal of Sociology and Anthropology*.

Waweru, A. (2023). The Role of Cooperative Networks in Enhancing Women's Recovery in Kenya. *Journal of Rural Studies*.

Appendices

Appendix I. Questionnaire

Dear Respondent,

My name is Cynthia Mukami Munene, and I am currently conducting a study titled "The Impact of Healthcare Interventions by Agricultural Cooperatives on Women's Recovery During the Post-COVID-19 Period in Kajiado County, Kenya." This research is part of my Master of Cooperative Management degree at the Cooperative University of Kenya. You have been randomly selected to participate in this household survey, and I am inviting you to take part in an interview. Your participation is entirely voluntary, and you have the right to withdraw at any time without any consequences.

The purpose of this study is to explore the role of agricultural cooperatives in supporting women's recovery from the socio-economic impacts of COVID-19. Specifically, the researcher will examine the extent of cooperative involvement in healthcare interventions for women, the challenges faced, and the experiences of women members regarding the accessibility and usability of these interventions. Before proceeding, I would like to assure you that all information you provide will be kept strictly confidential and anonymous. Your responses will be used solely for research purposes and will be handled with the utmost care to ensure your privacy.

Consent: By ticking the box below, you consent to the collection and use of your responses as described. If you have any questions or need further clarification about the study or your participation, please feel free to ask.

☐ I consent to participate in the study.

Section A: General Information of the Respondent

1. Name of your Agricultural Cooperative:
   Use list provided

2. Which value chain does your cooperative deal in?
   Dairy

   Horticulture

   Other

3. Please indicate your Gender:
   Male Female Other
4. How old are you?
   a. 18-35 years
   b. 36-50 years
   c. 50-60 years
   d. 60 and above
5. Highest level of education attained (Mark only one):
   a. Primary
   b. Secondary
   c. College / University
   d. None
6. Marital Status (Mark only one):
   a. Single
   b. Married
   c. Divorced
   d. Widowed

7. If Single, who do you live with?

Parent ,Guardian , Relatives ,Friends Self

8. What is your position in the Cooperative? (Mark only one):
   a. Committee member
   b. Employee
   c. Member
9. How long have you been a member of the Cooperative? (Mark only one):
   a. Less than 1 year
   b. 1-2 years
   c. 3-5 years
   d. More than 5 years
   e. Not a member

Section B: Socio-Economic Situation Before COVID-19

10. What was your main source of income before the COVID-19 pandemic? (Select all that apply):

a. Crop farming
b. Livestock farming
c. Poultry farming
d. Beekeeping
e. Employment (formal or informal)
f. Small business or trade (e.g., selling produce, goods)
g. Handicrafts or artisan work
h. Casual labor
i. Cooperative dividends or profits
j. No source of income

11. What was your approximate monthly household income before the COVID-19 pandemic?

a. Below KES 1,000
b. KES 1,001 - KES 10,000
c. KES 10,001 - KES 20,000
d. Above KES 20,000

12. What type of healthcare access did you and your family have before the COVID-19 pandemic?
    a. Public healthcare facilities
    b. Private healthcare facilities
    c. Community health centers
    d. No access to healthcare center
13. If you had No access to healthcare, what would be the reason ?
    a. Lack of finances
    b. Transportation or logistical issues
    c. Shortage of medical supplies and equipment in health centers
    d. Lack of access to healthcare providers health centers
    e. Cultural or social barriers

14. How did you pay for healthcare services before the COVID-19 pandemic? (Select all that apply):
    a. Out-of-pocket payments
    b. NHIF (National Hospital Insurance Fund)
    c. Private health insurance
    d. Cooperative-supported healthcare financing
    e. Government subsidies or support
    f. Donations or financial assistance from NGOs or charities
    g. Barter or trade of goods/services
    h. Did not pay (accessed free services)

Section C: Impact of COVID-19 on Socio-Economic Situation

15. Was your household income affect by COVID-19
    a. Yes

b. No

16. If yes, did the COVID-19 pandemic affect your household income?

Job loss

Pay cuts due to Reduced working hours

Business closure and reduced business income

Increased healthcare expenses

Increased household expenses

Loss of a secondary income source

Inability to work due to lockdowns or restrictions

Dependency on government or community aid

Increased responsibilities

17. Did you experience any difficulty in accessing healthcare during the COVID-19 pandemic?
    a. Yes
    b. No
18. If Yes, what difficulties did you encounter? (Select all that apply):
    a. Financial constraints
    b. Healthcare facilities were closed or inaccessible
    c. Lack of transportation
    d. Fear of contracting COVID-19
    e. Shortage of medical supplies and equipment in health centers
    f. Lack of access to healthcare providers health centers
    g. Cultural or social barriers

Section D: Post-COVID-19 Recovery and Impact of Cooperative-Led Healthcare Interventions

19. Did your cooperative implement any interventions to help members recover socio-economically after the COVID-19 pandemic?
    a. Yes
    b. No
20. If yes, what types of support were provided? (Check all that apply):
    a. Financial assistance (e.g., loans, grants)
    b. Training, Advocacy and awareness programs (e.g., COVID-19 prevention, health education)
    c. Access to markets for selling agricultural products
    d. Healthcare support (e.g., medical camps, health screenings)
    e. Distribution of essential supplies (e.g., food, hygiene products)
    f. Provision of protective equipment (e.g., masks, sanitizers)
    g. Mental health and counseling services
    h. Facilitation of government aid or subsidies
    i. Support for childcare or family responsibilities
    j. Assistance with transportation or logistics

k. Establishment of savings and credit kitty

21. Did the support from the cooperative help you recover socio-economically?
    a. Yes
    b. No
22. If yes, in what ways did the cooperative's support help you recover socio-economically? (Select all that apply):
    a. Provided financial assistance or loans
    b. Offered reduced-interest loans
    c. Increased loan repayment period
    d. Offered health-specific loans
    e. Provided training or capacity-building programs
    f. Facilitated access to healthcare services
    g. Supported access to markets for agricultural produce
    h. Provided job or income-generating opportunities
    i. Offered psychological or emotional support services
    j. Improved access to essential resources (e.g., seeds, fertilizers)
    k. Strengthened community networks and social support systems

Section E: Healthcare Initiatives by Agricultural Cooperatives

23. Are you aware of any healthcare interventions provided by the cooperative after the COVID-19 pandemic?
    a. Yes
    b. No
    c. I am not aware
24. If yes, which of the following healthcare interventions were you aware of? (Select all that apply):
    a. **Provision of financial aid or loans**
    b. Health Insurance Subsidy Programs
    c. Support for vaccination drives
    d. Provision of sanitizing supplies
    e. **Distribution of face masks**
    f. **Medical support services** (e.g., free or subsidized medical check-ups or treatments, Organizing Medical Camps, Maternal and Child Health Programs)
    g. Health education on COVID-19 prevention Setting up handwashing stations
    h. **Psycho-social support** (e.g., counseling services for mental health)
25. Did the cooperative provide any financial support for healthcare needs specifically for women after the COVID-19 pandemic?
    a. Yes
    b. No
    c. I do not know
26. If yes, what types of financial support were provided? (Select all that apply):
    a. Low-interest or interest-free healthcare loans
    b. Health insurance packages tailored for women
    c. Subsidies for healthcare services or medications
    d. Direct cash transfers for healthcare needs
    e. Emergency healthcare funds for urgent needs

f. Coverage for maternal and child health services
g. Financial support for mental health services
h. Assistance with transportation to healthcare facilities

27. How did this financial support impact your ability to access healthcare services? (Select all that apply):
    a. Improved my ability to afford necessary treatments
    b. Enabled me to access preventive healthcare services
    c. Allowed me to seek specialized care or services
    d. Reduced financial stress related to healthcare expenses
    e. Increased my access to maternal and child health services
    f. Provided timely access to emergency care
    g. Improved my overall health and well-being
    h. Had little to no impact on my ability to access healthcare

Section F: Challenges Faced by Agricultural Cooperatives

28. What challenges did the cooperative face in facilitating healthcare initiatives for women post-COVID-19? (Select all that apply):
    a. Insufficient funding or financial resources
    b. Shortage of medical supplies or equipment
    c. Lack of access to healthcare partners or providers
    d. Difficulty in coordinating with healthcare professionals
    e. Transportation or logistical issues
    f. Cultural or social barriers
    g. Low community awareness or engagement
    h. Dependence on external donors
29. Were there any resource limitations that impacted the cooperative's ability to facilitate healthcare initiatives?
    a. Yes
    b. No
    c. I do not know
30. If yes, what specific resource limitations were encountered? (Select all that apply):
    a. Limited financial resources for supporting initiatives
    b. Difficulty securing partnerships with reliable healthcare providers
    c. Challenges in mobilizing community volunteers or resources
    d. Lack of access to necessary medical supplies or health-related equipment
    e. Insufficient training or capacity-building opportunities for cooperative members
    f. Inadequate transportation or logistics for organizing healthcare-related events
    g. Dependence on external funding with uncertain continuity
31. How did the cooperative address these challenges in facilitating healthcare initiatives? (Select all that apply):
    a. Sought additional funding or financial support
    b. Partnered with other organizations or healthcare providers
    c. Mobilized community resources or volunteers
    d. Implemented cost-saving measures
    e. Focused on specific priority areas (e.g., maternal health)
    f. Increased awareness and education efforts

g. Adjusted initiative delivery methods (e.g., mobile clinics)

Section G: Perceptions and Experiences of Women Beneficiaries

32. How satisfied are you with the healthcare initiatives facilitated by the cooperative after the COVID-19 pandemic?
    a. Very Satisfied
    b. Satisfied
    c. Neutral
    d. Dissatisfied
    e. Very Dissatisfied
33. How effective do you believe the cooperative's healthcare initiatives have been in addressing your healthcare needs post-COVID-19?
    a. Very Effective
    b. Effective
    c. Neutral
    d. Ineffective
    e. Very Ineffective
34. How accessible were the healthcare initiatives provided by the cooperative to you and other women in your community?
    a. Very Accessible
    b. Accessible
    c. Neutral
    d. Inaccessible
    e. Very Inaccessible
35. Did you experience any barriers in accessing the healthcare initiatives facilitated by the cooperative?
    a. Yes
    b. No
36. If Yes, what barriers did you encounter? (Select all that apply):
    a. Lack of information about the initiatives
    b. Distance or transportation issues
    c. Cultural or social barriers
    d. Financial constraints
    e. Scheduling conflicts with other responsibilities
    f. Language or communication barriers
    g. Limited availability of healthcare services or professionals
    h. Other (Please specify): _____
37. How would you rate your overall experience with the cooperative's healthcare-led initiatives?
    a. Very Bad
    b. Bad
    c. Neutral
    d. Good
    e. Very Good

Section H: Sustainability of Healthcare Initiatives

38. Do you believe the healthcare initiatives provided by the cooperative are sustainable in the long term?
    a. Yes
    b. No
    c. Not Sure
39. If Yes or No, please select the reason(s) for your answer (Select all that apply):
40. If Yes:
    a. The cooperative has a consistent funding source for healthcare initiatives
    b. There is strong community support and participation
    c. The initiatives are integrated into existing healthcare systems
    d. The cooperative has built strong partnerships with healthcare providers
    e. The programs address long-term healthcare needs
    f. The initiatives have proven to be effective over time

41. If No:
    a. Lack of consistent funding or financial resources
    b. Limited community involvement or participation
    c. The initiatives are dependent on external donors or short-term funding
    d. Insufficient healthcare infrastructure or resources
    e. The programs do not adequately address long-term healthcare needs
    f. Difficulty in maintaining or scaling the initiatives

Section I: Recommendations

42. What additional support do you think the cooperative should provide to further aid your recovery? (Select all that apply):
    a. More financial assistance
    b. Continued healthcare support
    c. Training and skills development
    d. Market access and business support
    e. Community support initiatives

Appendix II: FOCUS GROUP DISCUSSION / INTERVIEW QUESTIONS

The role of Agricultural cooperatives in facilitating women's recovery from the socio-economic impacts of the COVID-19 pandemic in Kajiado county

1. Can you describe how the agricultural cooperative supported you during the COVID-19 pandemic?
2. What specific initiatives or programs did the cooperative introduce to help women during this period?
3. How did these initiatives impact your socio-economic status?
4. Were there any challenges that the cooperative addressed for women during the pandemic?
5. How effective do you think the cooperative's efforts were in aiding recovery?

The extent to which Agricultural cooperatives healthcare interventions contributed to women's recovery in Kajiado county during the post-COVID-19 Period

1. Can you describe any financial support or healthcare financing provided by the cooperative specifically for women after the COVID-19 pandemic?
2. How did this financial support impact your ability to access healthcare services?
3. Did the cooperative organize any medical camps post-COVID-19? If so, can you describe your experience attending these camps?
4. How frequently were these medical camps held and what services were offered?
5. Were there any awareness programs or educational sessions about healthcare organized by the cooperative?
6. What topics were covered during these awareness sessions, and how helpful did you find them?
7. Has the cooperative developed or implemented any gender-specific policies aimed at improving women's health post-COVID-19?
8. How have these policies affected your access to and use of healthcare services?

The challenges faced by Agricultural cooperatives in supporting women's recovery through healthcare initiates in the aftermath of the COVID-19 pandemic in Kajiado county

1. What challenges did the cooperative face in providing healthcare support to women post-COVID-19?
2. Were there any resource limitations that impacted the cooperative's ability to offer healthcare services?

3. How did the cooperative address these challenges?
4. What suggestions do you have for overcoming these challenges in the future?

The perceptions and experiences of women beneficiaries regarding the effectiveness and accessibility of cooperative-led healthcare interventions in post-COVID-19 recovery.

1. How accessible were the healthcare services provided by the cooperative to you?
2. Can you describe your experience using these healthcare services?
3. What barriers, if any, did you face in accessing the cooperative's healthcare services?
4. How could the cooperative improve the accessibility and usability of its healthcare interventions?

APPENDIX V: LIST OF AGRICULTURAL CO-OPERTAIVES IN KAJIADO COUNTY

NAME OF THE CO-OPERATIVE	Sub-County
Oloolaiser Farmers C.S	KAJIADO NORTH
Kimana Horticultural C.S Ltd.	KAJIADO SOUTH
Afriponics Marketing Co-Operative Society Limited	KAJIADO WEST
Sajiloni Farmers Cooperative Society	KAJIADO CENTRAL
Enkariak-Rokena Multipurpose	KAJIADO SOUTH
Oloitokitok Farming Cs Ltd.	KAJIADO SOUTH
Other	KAJIADO CENTRAL
Ilkipirash Dairy Farming Co-Operative Society Limited	KAJIADO CENTRAL
KWAWABOIY CS&CS LTD.	KAJIADO SOUTH
Naresho Women Dairy Co-Op Society Ltd	KAJIADO EAST
Naresho Women Dairy Co-Op Society Ltd	KAJIADO EAST
Foki Farming Society Ltd	KAJIADO SOUTH
Oldanyati Naboisho Marketing Co-Operative Society	KAJIADO WEST
Kajiado Farmers Feedloters Co-Operative Society Ltd	KAJIADO EAST
Olchoro Onyori Farmers Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO CENTRAL
NAMANGA DAIRY C.S LTD	KAJIADO CENTRAL
Esiret Worker Co-Operative Society Limited	KAJIADO CENTRAL
Ilasit Haven Housing Co-Operative Society Limited	KAJIADO SOUTH
Maa Livestock Marketing Co-Op So	KAJIADO CENTRAL
Enaidurra Dairy Farmers Cooperative	KAJIADO CENTRAL
Meiyeyu Diary Farmers Co-Operative Society Limited	KAJIADO WEST
Ilanyuak Le Arroi Sand Harvesting Co-Op	KAJIADO WEST
Ingabolo Dairy Co-Op Society Ltd	KAJIADO EAST
Kajiado East Bee Farmers Co-Operative Society Limited	KAJIADO EAST
Nasila Ushanga Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO CENTRAL
Other	KAJIADO CENTRAL
Natasha Marketing Co-Operative Society Limited	KAJIADO WEST

Lekura Ushanga Co-Operative Society Limited	KAJIADO WEST
Oloyiankalani Ushanga Co-Operative Society Limited	KAJIADO WEST
Loodokilani Beekeepers Farming Society Ltd	KAJIADO WEST
Illanyuak Loo Itilal Multipurpose Society Ltd	KAJIADO SOUTH
Reto Farmers Feeds Cooperative Society	KAJIADO CENTRAL
NAMELOK FARMERS CO-OPERATIVE SOCIETY LIMITED	KAJIADO CENTRAL
Emparanat Farmers Dairy Cooperative Society	KAJIADO CENTRAL
Naishorua Farmers Cooperative	KAJIADO CENTRAL
Maa Livestock Marketing Co-Op So	KAJIADO CENTRAL
ENTARARA CO-OP SOC LTD	KAJIADO SOUTH
Maa Livestock Marketing Co-Op So	KAJIADO CENTRAL
Olosula Livestock Marketing	KAJIADO CENTRAL
Eluaai Ushanga Co-Operative Society Ltd	KAJIADO WEST
Enkiitok-Nadupa Women Marketing Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO CENTRAL
Other	KAJIADO CENTRAL
Olkejuado Agriprocessors (Olap) Co-Operative Society Ltd	KAJIADO NORTH
Omom Kipeto Women Marketing Co-Operative Society Ltd	KAJIADO WEST
KULE DAIRY CS LTD	KAJIADO EAST
Other	KAJIADO CENTRAL
Ewangan Dairy Co-Operative Society Limited	KAJIADO EAST
Osagam Co-Operative Society Limited	KAJIADO EAST
Nooliatuani Marketing Co-Operative Society Limited	KAJIADO CENTRAL
Oloirien Saikeri Marketing Co-Operative Society Limited	KAJIADO WEST
Osotua Le Nchoro Emuny Poultry Keeping Co-Operative Society Limited	KAJIADO EAST
Illaramatak Livestock Cs Ltd.	KAJIADO CENTRAL
Kajiado East Bee Farmers Co-Operative Society Limited	KAJIADO EAST
Olningo Farming Society Ltd	KAJIADO CENTRAL
Other	KAJIADO EAST

Other	KAJIADO CENTRAL
Naretoi Emotoroki Dairy Cooperative Society	KAJIADO CENTRAL
Other	KAJIADO CENTRAL
Najung'uni Ushanga Co-Operative Society Limited	KAJIADO WEST
Loodokilani Laramatak Sand Harvesting C.S Ltd	KAJIADO WEST
Olorien Meto Dairy Co-Operative Society Limited	KAJIADO CENTRAL
Elong'o Marketing Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO CENTRAL
Other	KAJIADO WEST
Vet Poultry Farmers Co-Operative Society Limited	KAJIADO NORTH
Nailepu Women Marketing Soc Ltd	KAJIADO WEST
Eremit Farmers Co-Operative Society Limited	KAJIADO WEST
Paran Marketing Co-Operative Society Limited	KAJIADO WEST
Intogie Emutoo Marketing Co-Operative Society Limited	KAJIADO WEST
Nasha Marketing Cp-Operative Society Limited	KAJIADO WEST
Entasopia Marketing Co-Operative Society Limited	KAJIADO WEST
Rombo Farmers Cooperative Society Ltd	KAJIADO SOUTH
Embolioi Marketing Co-Op Society Ltd	KAJIADO EAST
Enduata Housing C.S Ltd	KAJIADO CENTRAL
Ole Kaitoriori Farmers Cooperative Society	KAJIADO CENTRAL
Dupoto Dairy Cooperative	KAJIADO CENTRAL
Narropil Marketing Co-Op Soc. Ltd	KAJIADO SOUTH
Enyorata Marketing Co-Operative Society Limited	KAJIADO WEST
Namanyiana Oloishobor Maasai Women Society	KAJIADO WEST
Other	KAJIADO CENTRAL
Other	KAJIADO CENTRAL
Other	KAJIADO CENTRAL
Lorpopongi Ushanga Co-Operative Society Limited	KAJIADO WEST
Maasai Kajiado Women Dairy C.S	KAJIADO CENTRAL
Other	KAJIADO EAST
Ontomonok Enrankau Multi-Purpose Cooperative Ltd	KAJIADO EAST
Kilimanjaro Dairy Farmers	KAJIADO SOUTH

Enkorropil Dairy Farmers Co-Operative Society Limited	KAJIADO WEST
Osiligi Lang'soc Ltd	KAJIADO WEST
Olobuke Women Housing C S Ltd	KAJIADO CENTRAL
Puaan Emaa Housing Co-Op Soc	KAJIADO WEST
Naboisho Oloshaiki Marketing Co-Operative Society	KAJIADO WEST
Ilmirisho Farming Society Ltd	KAJIADO CENTRAL
Other	KAJIADO SOUTH
Naramatisho Multipurpose	KAJIADO CENTRAL
Esurpuko Cooperative Society	KAJIADO CENTRAL
NALEPO MULTIPURPOSE CS LTD	KAJIADO CENTRAL
Endapidapoi Dairy Co-Operative Society Limited	KAJIADO WEST
Olmusheni Marketing Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO SOUTH
Nareto Uwezo Farmers Co-Operative Society Limited Formely Nareto Poultry F.C.S Ltd	KAJIADO NORTH
Olekiret Marketing Co-Operative Society Limited	KAJIADO WEST
Other	KAJIADO CENTRAL
Narasaa Marketing Co-Operative Society Limited	KAJIADO WEST
Enchipai Dairy Co-Operative Society Limited	KAJIADO WEST
Lenkism Marketing C.S Ltd	KAJIADO SOUTH

APPENDIX VI: MAP OF KAJIADO COUNTY