**THE CATHOLIC UNIVERSITY OF EASTERN AFRICA**

**FACULTY OF ARTS AND SOCIAL SCIENCES**

**DEPARTMENT OF SOCIAL SCIENCES AND DEVELOPMENT STUDIES**

# MULTI-STAKEHOLDER PRACTICES AND SUSTAINABILITY OF DAIRY PROJECTS IN GITHUNGURI DAIRY COOPERATIVE SOCIETY, KIAMBU COUNTY, KENYA

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**A THESIS PRESENTED TO THE FACULTY OF ARTS AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE IN MASTER OF ARTS IN PROJECT PLANNING**

**SEPTEMBER, 2026**

## DECLARATION

I hereby declare that this thesis is my own original work that has never been presented to any other institution or university for an academic award of degree, diploma, or certificate. All sources of information used in this thesis have been duly cited and referenced.

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We confirm that this thesis is submitted for examination with our approval as the duly appointed university supervisors.

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This work was accomplished under the auspices of the department and has passed all the required stages with the approval of the Directorate of Research, Innovation and Graduate Training.

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## DEDICATION

This work is dedicated to my parents for their continuous support.

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## ABBREVIATIONS AND ACRONYMS

| | | |
|---|---|---|
| **FAO** | : | Food and Agriculture Organization |
| **GDFCS** | : | Githunguri Dairy Farmers' Cooperative Society |
| **NACOSTI** | : | National Commission for Science, Technology and Innovation |
| **NEMA** | : | National Environment Management Authority |
| **NGOs** | : | Non-Governmental Organizations |
| **RBV** | : | Resource-Based View |
| **SPSS** | : | Statistical Package for the Social Sciences |
| **UNDP** | : | United Nations Development Programme |
| **VRIN** | : | Valuable, Rare, Inimitable, and Non-substitutable |

## ABSTRACT

This study assessed the influence of multi-stakeholder practices on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society (GDFCS), Kiambu County, Kenya. Specifically, it examined how strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation influence project sustainability, guided by Stakeholder Theory and the Resource-Based View. The study adopted a convergent parallel mixed-methods design, targeting 12,000 registered smallholder dairy farmers, from whom a sample of 387 was drawn alongside six purposively selected key informants. Quantitative data were analyzed descriptively and inferentially, while qualitative data were analyzed thematically, with findings triangulated to enhance validity. Results showed that multi-stakeholder practices significantly influenced sustainability, accounting for 61.6% of the variance ($R^2 = 0.616$, $p < 0.001$), rising to 70.9% ($\Delta R^2 = 0.093$, $p < 0.001$) when institutional leadership culture was included as a moderator. Stakeholder engagement was the strongest predictor ($\beta = 0.496$, $p < 0.001$), followed by leadership culture ($\beta = 0.351$, $p < 0.001$), strategic planning ($\beta = 0.119$, $p < 0.05$), monitoring and evaluation ($\beta = 0.079$, $p < 0.05$), and resource mobilization ($\beta = 0.066$, $p < 0.05$). The study concludes that multi-stakeholder practices significantly enhance the sustainability of dairy projects in GDFCS, with stakeholder engagement playing the most influential role. It recommends that GDFCS strengthen an integrated multi-stakeholder management approach that coordinates strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation to improve efficiency and long-term sustainability.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the study

Meeting increased demand for milk and milk products without compromising food safety and causing irreparable damage to the environment calls for an accelerated shift to more sustainable practices. Sustainability promotes animal welfare, the health and safety of workers and consumers, as well as the advancement of economic sustainability, for farmers to receive fair prices for their milk and can reinvest in their farms and communities (Food and Agriculture Organization [FAO], 2023). This concept is critical for the long-term viability of the dairy sector, as it simultaneously addresses economic, social, and environmental dimensions. Specifically, sustainability is enhanced through intensive and commercially oriented production systems, coordinated fodder production by cooperatives, consolidation of operators into financially resilient entities, and joint ventures with national and international partners to foster innovation, market diversification, and environmental stewardship (Tariq, 2025). These practices collectively support long-term productivity, sector resilience, and equitable benefits for all stakeholders in dairy projects, ensuring the continued viability and growth.

However, the sustainability of these dairy projects is not automatic as they are influenced by the application of stakeholder practices such as strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation provide the essential framework that translates collaborative intent into measurable outcomes (Bryson, 2015). These practices ensure goal alignment, inclusive participation, efficient resource utilization, and accountability thereby determining the ultimate impact of on sustainability goals. Diverse stakeholders, farmers, cooperatives, government agencies, NGOs, agribusinesses, and consumers, contribute knowledge, resources, and oversight (Aminah & Marhendra, 2025).

Their active involvement ensures that dairy projects remain relevant, inclusive, and productive. Dairy projects that integrate careful planning and involve multiple actors in decision-making demonstrate higher resilience and productivity. Dairy cooperatives in the Netherlands and New Zealand that implemented coordinated production schedules, resource allocation strategies, and participatory management systems reported up to 45% higher operational efficiency and improved compliance with environmental regulations (Van der Wal & Bijman, 2022; Thompson, 2021). Further, combining farmers' traditional knowledge with structured support from cooperatives and agencies led to measurable reductions in environmental impacts and enhanced adoption of sustainable farming methods in Thailand (Piyavaranon & Panpakdee, 2025).

Equally, the availability and strategic use of resources, along with systematic oversight mechanisms, strongly influence project outcomes. In Latin America, dairy projects that ensured access to financial, technical, and human resources alongside continuous monitoring of production and quality standards achieved significant improvements in milk yield, income distribution, and compliance with environmental and safety standards (Silva, 2022; Alemu, 2021). Similarly, evidence from European Union member states indicates that projects with structured evaluation frameworks were more capable of adapting to market fluctuations, maintaining milk quality, and sustaining community benefits over time (Bauer & Hennessy, 2020; Mpangwire, Ainomugisha & Musiita, 2024).

In Africa, dairy systems are largely smallholder-based, and their sustainability is shaped by economic, social, and environmental realities. It is less a formalized concept and more a practical measure of a project's ability to deliver enduring benefits to farmers, communities, and ecosystems. These projects face challenges in sustaining productivity due to fragmented operations and limited stakeholder coordination. Well-defined strategic plans, coupled with inclusive stakeholder engagement, enhance the longevity of dairy initiatives.

In Zimbabwe, stakeholder engagement significantly contributes to the competitiveness of dairy cooperatives (Matangaidze et al., 2023). Where with active participation of stakeholders in strategic planning processes enhances the cooperatives' ability to adapt to market changes and improve service delivery to farmers. Similarly, Ayantoyinbo et al. (2024) underscored the importance of integrating smallholder farmers, local cooperatives, and governmental bodies in the planning and implementation phases in Ogun State, Nigeria. This collaborative approach facilitated the adoption of best practices and foster a shared understanding of sustainability goals and promoting collective action towards achieving them.

Resource mobilization in African dairy projects differs markedly from that in developed nations, with African projects facing limited access to formal credit, reliance on donor funding or pooled community resources, and inconsistent governmental support, which constrains investment in infrastructure, feed, veterinary care, and value addition. Furthermore, African systems frequently contend with limited managerial expertise and weak institutional frameworks, affecting the effective use of available resources. Despite these constraints, African dairy initiatives leverage social capital, including cooperative networks and community participation, to pool resources and share knowledge, which strengthens collective action and enhances sustainability, albeit on a more localized scale.

The dairy sector is a major driver of rural economies in Kenya, especially where smallholder farmers dominate milk production. The sector contributes significantly to income, employment, and food security (Siakwah, Musavengane & Leonard, 2020). Nevertheless, in Kenya, sustainability challenges often arise from fragmented stakeholder coordination. Farmers possess indigenous knowledge, but dairy processors, NGOs, and county officials frequently operate in disconnected systems, leading to gaps in planning and resource allocation (Kipkoech, 2022; Ireri, Muriithi & Kung'u, 2023). Case in point, Dairy projects risk closure if they don't perform in long-term. Sasini, an agricultural company listed on the NSE reported

that it had closed its dairy unit due to low profitability (Sasini PLC, 2023). The firm stated that high production costs have made dairy project unsustainable. Engagement of industry stakeholders such as farmers, traders, employees, and customers promotes fairness and greater opportunity and benefit for the project.

### 1.2 Statement of the problem

Githunguri's dairy sector has expanded rapidly through a strong cooperative model and an established processing platform (Fresha/Zito). The Githunguri Dairy Farmers' Cooperative has been central to productivity gains and farmer services. Yet this growth exposes structural fragilities: milk volumes have increased but collection, quality control and market absorption remain volatile, declining production per cow in the most recent season and interruptions in farm-level feed quality that have depressed yields and margins, leaving farmers vulnerable to price shocks and unsold surpluses. At the same time, an influx of cheaper imports and episodic market shortfalls created large unsold stocks in 2024, underscoring weak market integration and price buffering mechanisms.

Public–private interventions have concentrated in Githunguri: Tetra Pak's Dairy Hub model and allied initiatives (including a planned Dairy Academy and a recent Maziwa Faida PPDP) aim to professionalize farm practices, improve milk quality and raise processing capacity. These programmes emphasize coordinated fodder supply, technical training, and value-chain linkages, measures designed to reduce production inefficiencies and strengthen market access. However, despite these interventions, sustainability of dairy projects in Githunguri's remains uncertain. The cooperative's processing capacity, estimated at over 300,000 litres per day, often operates at 60–70% utilization due to inconsistent milk inflows and seasonal gluts (Kenya Dairy Board, 2024). Farm-level productivity has stagnated, with average yields declining from 12 litres per cow per day in 2021 to about 9 liters in 2024, largely due to erratic feed availability, limited pasture renewal, and rising input costs.

Moreover, the cost of commercial feeds increased by 28% between 2022 and 2024, eroding profit margins and discouraging smallholder participation (Ministry of Agriculture, 2024). While Githunguri boasts one of the country's most organized dairy cooperatives, only 42% of member farmers regularly participate in training or extension services, reflecting weak stakeholder engagement and limited knowledge diffusion. Environmental sustainability also remains under-addressed: poor waste management and manure runoff have raised nitrate concentrations in local water sources by 35% above recommended levels (NEMA, 2023).

Consequently, this resulted in increased production costs, post-harvest losses, and market inefficiencies, ultimately diminishing farmer profitability and and food security. Existing studies have primarily focused on increasing cost of production and processing efficiency, yet little is known about how strategic planning, stakeholder engagement, resource mobilization, and monitoring mechanisms collectively shape long-term resilience and equitable value distribution within the sector. Therefore, justifying a study that sought to assess the influence of multi-stakeholder practices on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.

## 1.3 Purpose of the study

The study sought to assess the influence of multi-stakeholder practices on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.

### 1.3.1 Specific Objectives

i. To determine the influence of strategic planning on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.
ii. To assess the effect of stakeholder engagement on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.

iii. To examine the influence of resource mobilization on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.

iv. To determine the influence of monitoring and evaluation on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county.

### 1.4 Research Hypotheses

**$H_{01}$:** Strategic planning has no statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County.

**$H_{02}$:** Stakeholder engagement has no statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County.

**$H_{03}$:** Resource mobilization has no statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County.

**$H_{04}$:** Monitoring and evaluation have no statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County.

### 1.5 Justification of the study

Sustainability safeguard long-term productivity, economic stability, and environmental integrity, ensuring that increasing demand for milk is met without compromising food safety or ecosystem balance. It promotes equitable growth across the value chain, enabling farmers to earn fair returns, cooperatives to remain financially resilient, and communities to benefit from a stable, inclusive, and environmentally responsible dairy industry. However, the sustainability of dairy projects remains fragile despite the cooperative's strong institutional framework and processing capacity.

Fluctuating milk yields, inconsistent feed supply, weak waste management, and limited market integration continue to challenge long-term viability. Nevertheless, few studies have assessed the influence of multi-stakeholder practices on the sustainability of dairy projects. Therefore, this study provides an evidence-based contribution to improving how dairy cooperatives manage stakeholder relations, resource allocation, and production systems for consistent milk yields and fair returns for farmers. Further, it informs sustainable dairy development frameworks that strengthen cooperative governance, and guide interventions that promote inclusive and environmentally responsible value chains. Theoretically, the study extends understanding of how multi-stakeholder collaboration and sustainability principles within cooperative-based agricultural models.

### 1.6 Significance of the study

The study findings would benefit the dairy farmers and cooperative members by gaining practical insights into improving productivity, profitability, and sustainability through better resource management and stronger stakeholder collaboration. Cooperative management and practitioners would apply the findings to enhance operational efficiency, expand value addition, and stabilize market integration for long-term resilience. Policy makers at both county and national levels would utilize the results to formulate responsive frameworks that support sustainable dairy development, equitable milk pricing, and environmental protection. Development partners and private sector investors would refine their interventions to better align with local needs and promote inclusive growth. Researchers and academicians would derive theoretical and empirical value by deepening understanding of multi-stakeholder collaboration and sustainability dynamics in cooperative-based agricultural projects, offering a foundation for future empirical and policy-oriented studies.

## 1.7 Scope and Delimitation

The study examined the influence of multi-stakeholder practices (strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation) on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu county. Strategic planning is included because it guides collective visioning, resource prioritization, and operational coherence, which are essential for sustaining cooperative competitiveness. Stakeholder engagement anchors inclusivity, accountability, and trust, ensuring that diverse actors in the dairy value chain share ownership of outcomes. Resource mobilization determines the extent to which cooperative initiatives can be implemented and scaled while monitoring and evaluation are fundamental for adaptive management and continuous improvement.

Geographically, the study was situated in Githunguri Sub-County, Kiambu County, a region renowned for its strong cooperative tradition and advanced dairy infrastructure. Githunguri offers a relevant context due to its combination of institutional maturity and emerging sustainability challenges. The focus was limited to the dairy project, Githunguri Dairy Farmers' Cooperative exemplifies organized smallholder production, yet it faces recurring issues such as fluctuating yields, feed constraints, market volatility, and price instability. Methodologically, the study adopted a convergent parallel mixed-methods design, which allowed the simultaneous collection of quantitative and qualitative data and integrate both strands for a balanced understanding of how stakeholder practices influence sustainability outcomes in practice, policy, and theory.

## 1.8 Conceptual Framework

A conceptual framework provides a structured representation of the relationship between study variables and guides how the key constructs are conceptualized and analyzed in the study (Salawu et al., 2023). In this study, the framework illustrated how independent variable; multi-stakeholder practices, including strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation, influence the dependent variable; the sustainability of dairy projects, with institutional leadership culture acting as a moderating variable that may strengthen or weaken these relationships.

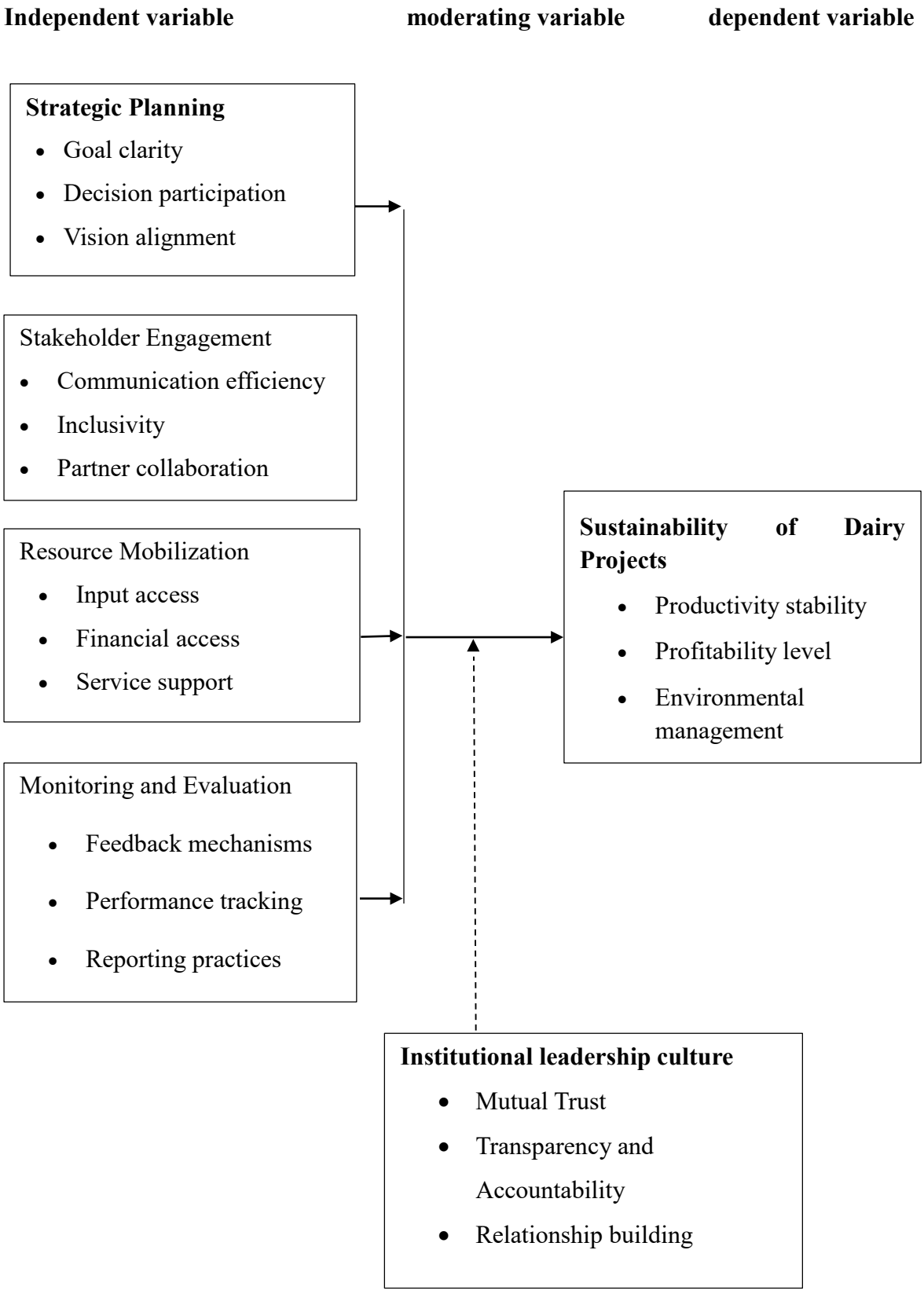



***Figure 1: Conceptual Framework***

### 1.9 Operational Definitions of Key Terms

**Institutional Leadership Culture**: The shared norms, values, and leadership behaviour within an institution that guide decision-making, accountability, and motivation toward achieving collective goals. (Chen et al., 2020)

**Monitoring and Evaluation (M&E):** A systematic process of data collection, analysis, and use to assess progress, outcomes, and performance for informed decision-making (Akanbang & Abdalla, 2021)

**Multi-Stakeholder Partnership**: A collaborative arrangement involving government, private sector, and community actors jointly implementing and monitoring initiatives for shared value and sustainable outcomes (United Nations Development Programme [UNDP], 2022)

**Resource Mobilization**: The systematic process of identifying, securing, and managing financial, human, and material resources required to sustain project activities (Food and Agriculture Organization (Ssesanga, (2021)

**Stakeholder Engagement**: The active involvement of individuals or groups who affect or are affected by organizational decisions in planning, implementation, and evaluation processes for mutual benefit (Kujala et al., 2022)

**Strategic Planning:** The process by which an organization defines its future direction, sets objectives, and aligns resources to achieve long-term goals (Paroli, 2024)

**Sustainability of Dairy Projects**: The ability of dairy initiatives to sustain productivity, profitability, and environmental balance over time without compromising future capacity (Neethirajan, 2024)

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter presents a comprehensive review of literature related to multi-stakeholder practices and their influence on the sustainability of dairy projects. It explores how strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation contribute to the effectiveness and long-term success of collaborative dairy initiatives. The chapter draws insights from global and local studies to highlight key dimensions that enhance coordination, accountability, and innovation among stakeholders. The theoretical foundations are grounded in Stakeholder Theory and the Resource-Based View, which explain how collaboration and resource utilization promote sustainable outcomes in multi-stakeholder dairy partnerships.

## 2.2 Theoretical Framework

This section discusses the theoretical foundations anchoring the study. Specifically, it reviews Stakeholder Theory and the Resource-Based View to explaining how collaboration and resource mobilization drive sustainable outcomes.

### 2.2.1 Stakeholder Theory

Stakeholder Theory was introduced by Freeman (1984), emphasizing that organizations do not exist solely to serve shareholders but must also consider the interests of all stakeholders affected by their operations. The theory argues that long-term success and sustainability depend on effectively managing relationships with diverse groups such as employees, customers, communities, governments, and partners (Freeman, Dmytriyev, & Phillips, 2021).

It highlights that when stakeholders are actively engaged and their interests aligned, organizational outcomes become more sustainable, ethical, and socially responsible (Freeman, Phillips, & Sisodia, 2020). The approach shifts the focus from profit maximization to value creation for all parties involved in or affected by organizational activities.

In the context of multi-stakeholder dairy projects, Stakeholder Theory provides a strong foundation for understanding how diverse actors farmers, cooperatives, government agencies, NGOs, and private investors can work collaboratively toward shared sustainability goals. The dairy sector typically involves multiple interdependent actors whose coordinated participation determines project outcomes (Valentinov & Chia, 2022). The theory emphasizes inclusivity, participatory decision-making, and mutual accountability, which align directly with the principles of multi-stakeholder engagement highlighted in the study (Shah & Guild, 2022). It supports the idea that when all partners' needs and contributions are recognized, partnerships foster innovation, trust, and long-term commitment (Freudenreich, Lüdeke-Freund, & Schaltegger, 2020).

The relevance of this theory to the study lies in its ability to explain why some partnerships succeed while others fail. Projects that neglect stakeholder engagement often face inefficiencies, conflicts, and reduced sustainability (Freeman, 2023). Conversely, those that integrate stakeholder interests through communication, collaboration, and transparency tend to achieve improved performance and shared value creation (Dmytriyev & Freeman, 2023). Therefore, Stakeholder Theory serves as a conceptual lens to assess how stakeholder engagement, decision participation, and shared vision enhance the effectiveness and sustainability of dairy projects under multi-stakeholder frameworks (Awa, Etim, & Ogbonda, 2024).

Despite its wide application in organizational and project management studies, Stakeholder Theory has faced several criticisms. One major critique is its lack of clarity in identifying and prioritizing stakeholders, as it does not provide a clear framework for determining whose interests should take precedence when conflicts arise. Scholars also argue that the theory is often normative rather than practical, offering ethical guidelines without sufficient tools for implementation in complex, multi-stakeholder environments (Freeman, Phillips, & Sisodia, 2020). Furthermore, it has been faulted for assuming that all stakeholder relationships are cooperative, overlooking potential power imbalances, conflicting interests, and the political dynamics that influence decision-making in collaborative projects. In the context of multi-stakeholder dairy projects, these challenges may manifest in unequal resource contributions, limited participation of smallholder farmers, and dominance by financially stronger actors (Shah & Guild, 2022).

This study bridged these theoretical gaps by applying Stakeholder Theory within the specific framework of multi-stakeholder dairy projects, emphasizing balanced participation, transparency, and mutual accountability among all actors. By empirically examining how communication, coordination, and resource sharing influence sustainability outcomes, the study operationalizes the theory's principles in a practical, measurable way (Freeman, Dmytriyev, & Phillips, 2021). It also contributed to the refinement of Stakeholder Theory by highlighting strategies to manage power asymmetries and enhance inclusivity in collaborative agricultural projects. Thus, the study extends the theory beyond its normative assumptions to demonstrate its applicability in guiding sustainable, equitable partnerships in the dairy sector.

### 2.2.2 Resource-Based View

The Resource-Based View (RBV) was introduced by Barney (1991), proposing that an organization's competitive advantage and performance stem from its ability to acquire, develop, and utilize valuable, rare, inimitable, and non-substitutable (VRIN) resources.

The RBV emphasizes internal capabilities and resource mobilization as key determinants of success, suggesting that effective management of these resources leads to superior outcomes compared to competitors (Davis and DeWitt, 2021). This framework highlights how organizations that strategically align their internal strengths with market opportunities are more likely to achieve sustainable performance (Barney, Ketchen, and Wright, 2021).

In relation to multi-stakeholder dairy projects, RBV provides a framework for understanding how partnerships harness and integrate resources from various actors to enhance project sustainability. Dairy projects often rely on a combination of financial inputs, technical expertise, human capital, and institutional support (Gibson, Gibson, and Webster, 2021). The theory explains that partnerships become more effective when stakeholders pool and complement their unique resources such as government policies, private investment, farmer knowledge, and NGO capacity-building support (Gerhart and Feng, 2021). This interdependence creates a synergistic environment that strengthens project performance, innovation, and resilience (Collins, 2022).

The relevance of the RBV to the study lies in its explanation of how resource mobilization contributes to effective partnership outcomes. In multi-stakeholder settings, sustainable results depend not only on collaboration but also on how resources are distributed, accessed, and utilized among partners (McGahan, 2021). The theory supports the study's examination of how resource access (financial, technical, and service support) influences the sustainability of dairy projects (Rodriguez, Ricart, and Sanchez, 2002). Ultimately, RBV underscores the idea that effective resource management through shared commitment, strategic planning, and collaboration is central to the long-term effectiveness of multi-stakeholder partnerships (Lubis, 2022; Chadwick and Flinchbaugh, 2021).

Despite its strengths, the Resource-Based View has faced several critiques. One major criticism is its inward-looking orientation, which focuses primarily on internal resources while underestimating the influence of external environmental factors such as market dynamics, institutional frameworks, and socio-political contexts (Priem & Butler, 2021). Scholars also argue that the RBV provides limited guidance on how resources are developed or combined across organizations, particularly in collaborative settings like multi-stakeholder projects (Davis and DeWitt, 2021). Moreover, the theory assumes that all valuable resources can be controlled or owned, overlooking shared or co-created resources that arise from partnerships and collective action. These gaps limit its applicability to contexts where interdependence and shared resource governance are essential to sustainability (Rodriguez, Ricart, & Sanchez, 2020).

This study bridged these theoretical limitations by extending the RBV beyond the firm level to the multi-stakeholder project context, emphasizing collective resource mobilization and shared value creation (Collins, 2022). By investigating how financial, technical, and institutional resources are pooled and utilized among diverse actors in dairy projects, the study operationalizes RBV principles in a collaborative environment. It demonstrates how resource complementarity, rather than individual ownership, drives sustainability and long-term effectiveness (Rodriguez, Ricart, & Sanchez, 2020). Consequently, the study refines the RBV by incorporating the dynamics of inter-organizational cooperation, offering a more holistic understanding of how shared resources enhance sustainability within multi-stakeholder dairy partnerships.

### 2.3 Strategic Planning and Sustainability of Dairy Projects

Strategic planning influences the effectiveness of multistakeholder partnerships by providing goal clarity, enabling informed decision participation, and ensuring vision alignment. When goals are clearly defined, partners understand their roles and shared objectives (Amanuma, Onoda, and Olsen, 2024). Inclusive decision-making fosters ownership and accountability among stakeholders, while a unified vision aligns individual efforts toward collective outcomes. Together, these elements enhance coordination, reduce conflicts, and improve long-term sustainability, enabling partnerships to respond strategically to emerging challenges and optimize the use of shared resources for achieving their common mission (MacDonald, Clarke, and Huang, 2022).

In Germany, goal clarity has been identified as a critical determinant in enhancing the effectiveness of multistakeholder partnerships. Clear and measurable goals help align diverse actors, such as government agencies, private firms, and civil society organizations, toward shared objectives in sustainability and innovation initiatives (Raupach-Sumiya, 2024). Studies reveal that when strategic planning explicitly defines goals and responsibilities, coordination improves, leading to more efficient resource utilization and accountability among partners (MacDonald, Clarke, and Huang, 2022). Conversely, ambiguous or conflicting goals often create confusion and weaken trust, thereby limiting the partnership's ability to deliver impactful and sustainable outcomes (Morozov, Panikar, and Dmitriiev, 2024).

In South Korea, decision participation significantly influences the success of multistakeholder collaborations. Research indicates that inclusive strategic planning processes where all stakeholders actively contribute to decision-making foster shared ownership and commitment to project outcomes (Jo, 2024). The government's collaborative governance models demonstrate that participatory decision structures enhance adaptability and responsiveness to emerging challenges (Lee, Yoon, Yang, Namkoong, and Kim, 2024).

Such engagement not only strengthens mutual trust but also ensures that diverse perspectives are incorporated, leading to more innovative and context-sensitive solutions (Dulay, 2021). Hence, broad-based decision participation is central to partnership effectiveness in complex development projects.

In Brazil, vision alignment has emerged as a cornerstone of effective multistakeholder partnerships, particularly in social and environmental programs. When stakeholders share a unified vision developed through participatory strategic planning, collaboration becomes more cohesive and goal-oriented (Matzembacher, Vieira, and de Barcellos, 2021). Studies on public-private partnerships in Brazil show that vision alignment mitigates conflicts of interest and enhances long-term commitment among partners (Falqueto, Hoffmann, Gomes, and Onoyama Mori, 2020). Furthermore, aligned visions encourage transparent communication and sustained motivation, both of which are essential for achieving strategic objectives and ensuring that partnership efforts remain consistent with shared societal values (dos Santos Treichel, Borges Saidel, Lourencetti, Lirani dos Reis, Pereira Figueiredo, Brandão da Silva, and Onocko Campos, 2025).

In Nigeria, strategic planning enhances multistakeholder partnerships by promoting goal clarity among collaborating entities. When partners in sectors such as agriculture and education engage in structured planning sessions, they develop a common understanding of objectives, leading to smoother coordination and reduced overlap of efforts (Nwagwu, 2020). Partnerships with clearly defined goals achieve stronger accountability and higher performance compared to those with vague targets (Onasanya, Oladepo, Forje, Abua, and Amazigo, 2025). This clarity ensures that each participant understands their role, expected results, and timelines, fostering trust, efficiency, and shared commitment to partnership success (Enechi and Pattberg, 2025).

In South Africa, decision participation serves as a vital factor in strengthening the effectiveness of multistakeholder partnerships. Inclusive decision-making where government agencies, civil society, and private organizations jointly contribute encourages transparency, innovation, and ownership of outcomes (Jansen and Kalas, 2020). Active participation allows diverse perspectives to influence planning and implementation, ensuring that all voices are valued (Selebi and Mhlongo, 2022). This collective engagement strengthens collaboration and increases adaptability, enabling partnerships to respond effectively to emerging challenges while maintaining unity and sustainability in their operations (Selebi, Slabbert, and Van Niekerk, 2023).

In Ghana, vision alignment plays a central role in ensuring the success of multistakeholder partnerships. When partners share a unified vision that reflects national development priorities, their efforts become more coherent and focused (Kumi, Yeboah, and Amoako, 2024). A shared vision allows government bodies, NGOs, and local communities to channel their resources and expertise toward common goals (Asamoah and Anyinah, 2024). This harmony reduces conflicts, enhances coordination, and builds long-term commitment, enabling partnerships in sectors such as environmental management and education to achieve meaningful, sustainable impact through aligned strategic direction (Kumawu, 2025).

In Tanzania, goal clarity has been pivotal in enhancing the effectiveness of multistakeholder partnerships, especially in sectors like health and agriculture. When organizations establish clear and measurable objectives, it creates a unified understanding among partners, minimizing conflicts and duplication of efforts (Mrema, 2024). For instance, development programs in Tanzania have demonstrated that transparent communication of strategic goals allows government agencies, NGOs, and private actors to align their roles effectively toward shared outcomes (Sigalla, Tumbo, and Joseph, 2021).

This clarity fosters accountability and ensures that resources are directed efficiently toward prioritized targets, thereby improving partnership outcomes and sustainability in multi-actor initiatives (Nuhu, Mpambije, and Ngussa, 2020).

In Uganda, decision participation significantly contributes to the success of multistakeholder partnerships by fostering inclusivity and shared ownership. When stakeholders from different sectors such as government, civil society, and community-based organizations actively participate in decision-making processes, they develop stronger commitment to joint objectives (Nuwagaba, Molokwane, Nduhura, Tshombe, and Muhwezi, 2022). Evidence from Uganda's agricultural value-chain collaborations shows that participatory decision-making mechanisms encourage mutual trust, innovation, and adaptability to local needs (Mwesigwa, Nanteza, Mayengo, Nabwami, and Tumwesige, 2024). This inclusiveness reduces power imbalances, enhances transparency, and strengthens the legitimacy of collective actions, ensuring that diverse voices contribute meaningfully to planning and implementation within strategic frameworks (Atuhaire, Bahati, Atukunda, Kindiki, Namubiru, and Kyohairwe, 2024).

In Rwanda, vision alignment has proven to be a key determinant in maintaining coherence and long-term success among multistakeholder partnerships. Through the country's Vision 2050 framework, various actors including government institutions, private entities, and international donors have effectively aligned their strategic objectives toward national development priorities (Gaudence and de Dieu Dushimimana, 2025). This shared vision reduces fragmentation and promotes synergy across sectors (Tuyishime, Hahirwa, Njunwa, and Nyiligira, 2025). Partnerships in infrastructure and education have benefited particularly from this alignment, leading to more coordinated interventions and efficient resource use. Vision congruence also enhances collective motivation, as partners perceive their contributions as part of a larger national mission, thus improving the sustainability of partnership outcomes (Kyembwa and Kwena, 2025).

In Nairobi County, goal clarity has played a crucial role in enhancing the effectiveness of multistakeholder partnerships, especially in urban development and waste management initiatives. Clearly defined objectives among county authorities, private investors, and community groups have streamlined planning processes and minimized resource duplication (Musila, 2023). When all partners understand their specific roles and expected outcomes, coordination improves and progress becomes measurable (Ogada, Koros, and Adhiambo, 2023). For instance, in joint infrastructure projects, clarity of purpose has ensured accountability and improved service delivery. This shared understanding allows the county to track milestones efficiently and sustain trust among collaborators, resulting in more impactful and sustainable outcomes (Ndeke, 2023).

In Makueni County, decision participation has been a cornerstone of effective partnership implementation, particularly in agricultural and water resource management programs. The county's inclusive governance model encourages farmers, cooperatives, NGOs, and government departments to take part in decision-making (Kituku, 2020). This participatory approach strengthens ownership, reduces conflict, and enhances the responsiveness of interventions to community needs (Kioko and Muchelule, 2023). When all partners contribute to planning and implementation decisions, they feel equally accountable for outcomes. Such inclusivity has promoted transparency, trust, and long-term commitment, allowing the county's partnerships to achieve sustainable results in service delivery and economic development (Kabwere, 2024).

In Kisumu County, vision alignment has been fundamental in promoting cohesive and goal-driven partnerships, especially within the health and environmental sectors. Harmonizing the long-term visions of the county government, donor agencies, and local organizations ensures that development initiatives are consistent and mutually reinforcing (Omondi, 2023).

For example, aligning partners' visions on sustainable urban health has improved coordination in resource use and policy implementation (Otieno, 2025). This shared vision fosters synergy, reduces competition, and creates a unified direction that supports scalability and sustainability. Through consistent vision alignment, Kisumu's partnerships have maintained focus, coherence, and measurable progress in achieving county development goals (Apondo, 2021).

### 2.4 Stakeholder Engagement and Sustainability of Dairy Projects

Stakeholder engagement is essential for effective multistakeholder partnerships as it promotes communication efficiency, inclusivity, and partner collaboration. Open and transparent communication ensures that all parties are informed and able to contribute meaningfully to joint initiatives (Wanner and Miljand, 2025). Inclusivity allows diverse perspectives and expertise to shape strategic decisions, increasing innovation and relevance. Strong collaboration among partners builds trust, enhances knowledge sharing, and supports collective problem-solving, all of which strengthen the partnership's capacity to achieve mutual goals and sustain long-term impact (Radhika and Kumar, 2025).

In Nepal, the Bagmati River Basin Improvement Project demonstrates the crucial role of communication efficiency in enhancing the effectiveness of multistakeholder partnerships. The project, coordinated by the Asian Development Bank, engaged diverse actors such as government ministries, local municipalities, water-user associations, and community-based organizations to restore the river ecosystem (Maskey, 2020). A structured communication framework was established, involving regular stakeholder consultations, multi-channel updates, and community radio programs to ensure transparency and mutual understanding (Willetts, Al'Afghani, Qowamuna, Karama, Njoroge, Omufwoko, and Roaf, 2022). Efficient communication mechanisms facilitated rapid information flow, minimized conflicts, and helped synchronize activities among partners.

This clarity and openness in communication created trust, improved accountability, and ensured that all parties remained aligned toward shared environmental and social objectives (Koirala, Khadka, Neupane, and KC, 2024).

In India, the Himachal Pradesh Sustainable Forest Management initiative highlights how inclusivity enhances stakeholder engagement and partnership effectiveness. The program, supported by the Global Environment Facility, brought together forest departments, indigenous communities, women's self-help groups, and local NGOs to jointly manage forest resources (Rajendran, Nayak, Siva, Phagdol, Pai, D'Souza, and Noronha, 2025). Decision-making platforms were deliberately designed to incorporate the voices of marginalized and indigenous groups traditionally excluded from formal planning (Radhika and Kumar, 2025). This inclusive approach improved the legitimacy of interventions, promoted equitable resource distribution, and enhanced compliance with conservation measures. Inclusivity also increased social ownership of outcomes, as communities felt empowered to contribute local knowledge and participate in project monitoring. Consequently, the partnership achieved stronger environmental stewardship and long-term sustainability (Singh, 2024).

In Japan, the Kanazawa City SDG Localisation Project offers a strong example of how partner collaboration contributes to the success of multistakeholder partnerships. The initiative integrated the efforts of municipal authorities, universities, private companies, civil society organizations, and international agencies to promote sustainable urban development (Suto and Takehara, 2025). Collaboration was institutionalized through joint committees, co-creation workshops, and shared data systems that encouraged transparency and joint accountability (Sato, 2021). This cooperative structure fostered resource sharing, knowledge exchange, and mutual learning among partners, leading to innovative solutions for waste reduction, energy efficiency, and community welfare. The synergy among diverse actors allowed Kanazawa to

serve as a model for integrated local governance aligned with global sustainability goals (Amanuma, Onoda, and Olsen, 2024).

In Nigeria, stakeholder engagement has proven crucial in enhancing communication efficiency within multistakeholder partnerships. Effective communication channels among government agencies, private entities, and civil society organizations facilitate transparency and the timely exchange of information, reducing duplication of efforts and misunderstandings (Ogar and Idajor, 2024). For instance, in national health and environmental initiatives, open dialogue platforms and regular stakeholder meetings have enabled coordinated action and problem-solving (Oruwari, Obunwa, Ahuchogu, and Ayuba, 2024). This efficient communication structure has improved accountability, enabling each partner to align their efforts toward shared objectives and enhancing project delivery outcomes. Consequently, communication efficiency strengthens mutual trust and ensures that all partners remain informed and responsive throughout project implementation (Amanuma, Onoda, and Olsen, 2024).

In South Africa, inclusivity in multistakeholder partnerships has been vital in ensuring equitable participation and representation of marginalized groups. The inclusion of community-based organizations, women, and youth in collaborative frameworks fosters diverse perspectives and enhances the legitimacy of decision-making processes (Mukhawa and Magau, 2024). For example, in sustainable development and housing programs, inclusive engagement mechanisms have empowered local communities to voice their priorities and co-create solutions with institutional actors (Maqhubela, 2025). This inclusivity not only bridges power imbalances but also enhances social cohesion and ownership, ensuring that outcomes are socially accepted and sustainably implemented (Anabaraonye, Anukwonke, Samuel, Dibia, Olisah, and Ezeukwu, 2022).

In Ghana, partner collaboration has been instrumental in enhancing the effectiveness of multistakeholder partnerships through joint planning, shared resources, and coordinated action. Collaborative engagement among public institutions, private sectors, and NGOs has improved synergy in implementing agricultural and environmental programs (Bimpong and David, 2024). By fostering mutual respect and recognizing the comparative advantages of each partner, these collaborations have improved innovation and policy coherence (Yeleliere, Nyamekye, Antwi-Agyei, and Boamah, 2022). Strong collaboration mechanisms have led to efficient use of resources, minimized conflicts, and fostered adaptive strategies that enhance the resilience and sustainability of partnership initiatives across different sectors (Faanu and Andrews, 2025).

In Tanzania, multistakeholder partnerships in sectors such as water, sanitation, and local governance have highlighted the centrality of communication efficiency in determining partnership effectiveness. For example, in the Lake Victoria Initiative, multistakeholder forums were established at local town levels to bring together government, NGOs, community groups, private sector, and media, which helped streamline the flow of information, reduce misunderstandings, and speed decision-making processes (Sanka, 2024). Through structured meeting schedules, designated liaison roles, and consensus-oriented discussion protocols, these forums reduced delays arising from conflicting messages and improved alignment across partners (Faki, Matoka, and Mutasa, 2024). This efficient communication was critical in ensuring timely implementation and adaptive adjustments within the multistakeholder collaborations (Katikiro, Kweka, Minja, Namkesa, and Ponte, 2021).

In Rwanda, the Rubavu horticulture multi-stakeholder platform illustrates how inclusivity strengthens the legitimacy of multistakeholder partnerships by ensuring marginalized voices are heard. The platform deliberately includes smallholder farmers, women, youth, and persons with disabilities in decision forums alongside government and private actors (Ufitimfura and

Juma Amolo, 2025). By structuring participatory spaces where vulnerable groups can contribute meaningfully to policy dialogue, the partnership ensures that multiple perspectives shape interventions and that policies are socially responsive (Ruhumuriza and de Dieu Dushimimana, 2024). This inclusive approach has been credited with improving equity and acceptance of partnership outcomes in the agriculture value-chain domain in Rwanda (Lucien and Amolo, 2025).

In Uganda, experimental studies on multi-stakeholder forums (MSFs) in oil-affected communities demonstrate how effective partner collaboration undergirds partnership results. Osumba & Recha (2022) assessed MSFs' impact, noting that when community representatives, corporate, and government actors engaged in joint problem solving and co-management, the attribution of credit and shared accountability improved. The forums fostered a culture of collaborative planning and follow-through, reducing siloed actions and increasing coherence in interventions across actors (Magoola, Mwesigwa, and Nabwami, 2023). Where collaboration was weaker, outcomes were fragmented and less durable. Thus, sustained and interdependent partner collaboration in Uganda has been pivotal to multistakeholder partnership effectiveness (Ebubedike, Dawadi, Alla-Mensah, Kwaibwe, Kamunvi, Cingtho, and Ngobi, 2024).

In Kiambu County, communication efficiency has played a crucial role in enhancing the performance of multistakeholder partnerships. Effective stakeholder engagement relies on clear, consistent, and timely communication among actors such as county officials, local cooperatives, and private sector players (Osumba and Recha, 2022). Through structured dialogue platforms and feedback mechanisms, stakeholders in Kiambu have managed to reduce misunderstandings and duplication of efforts (Karumba, Oluoch, Mutua, Gathara, Fuller, English, and Maina, 2024). The county's success in agricultural and waste management collaborations illustrates how transparent information flow builds trust and accelerates

decision-making, ultimately leading to better project implementation outcomes and shared accountability across all partners (Waroinge, Kirima, and Bichage, 2024).

In Mombasa County, inclusivity has been a defining factor in the success of multistakeholder partnerships addressing environmental and infrastructural challenges. Efforts to engage all relevant parties—including local communities, government agencies, non-governmental organizations, and private investors—have strengthened ownership and representation in decision-making processes (Farrah and Ng'ang'a, 2022). By ensuring that marginalized groups such as women and youth are included, Mombasa's initiatives in coastal resource management have achieved more sustainable outcomes (Kioko, 2025). This inclusive approach has encouraged mutual understanding and equitable benefit distribution, making partnerships more responsive to community needs and resilient against social and political barriers (Otundo Richard, 2024).

In Nakuru County, partner collaboration has emerged as a key determinant of effective stakeholder engagement in multistakeholder partnerships. The county's partnerships in water resource management and urban planning demonstrate how joint planning, shared responsibilities, and resource pooling enhance project success (Samwel, Micheni, Susi, Nicholas, and Kemuma, 2023). Collaboration between local authorities, donor agencies, and community groups has improved efficiency in service delivery and innovation in problem-solving (Mulumba and Muchelule, 2024). When partners align their goals and complement each other's strengths, they create synergy that leads to measurable improvements in project sustainability and long-term impact (Wambugu, Osinga, Murk, and Lamers, 2025).

## 2.5 Resource Mobilization and Sustainability of Dairy Projects

Resource mobilization significantly affects partnership effectiveness through input access, financial access, and service support. Adequate access to inputs such as technology, information, and human capital enables partners to implement activities efficiently. Reliable financial resources ensure program continuity and enable investments in innovation (Maskey, 2020). Service support, including training and technical assistance, enhances operational capacity and promotes equity among partners. Effective resource mobilization therefore ensures that partnerships have the necessary means to pursue their objectives, maintain momentum, and deliver measurable outcomes that benefit all stakeholders (Wanner and Miljand, 2025).

In Brazil, resource mobilization has played a crucial role in enhancing input access within multistakeholder partnerships. Collaborative agricultural and environmental programs in the Amazon have demonstrated that equitable access to inputs such as technology, seeds, and expertise significantly strengthens partnership outcomes (Tovar, 2020). Public-private partnerships between the government, NGOs, and local cooperatives have improved the distribution of agricultural inputs and knowledge sharing, leading to increased productivity and sustainability (Ratner, Larson, Barletti, ElDidi, Catacutan, Flintan, and Meinzen-Dick, 2022). Moreover, community-led initiatives supported by international donors have enabled marginalized groups to gain access to improved farming tools and inputs, fostering inclusivity and local empowerment (Wanner and Miljand, 2025). Thus, efficient resource mobilization in Brazil enhances stakeholder coordination, allowing for collective action toward sustainable development goals.

In India, financial access through resource mobilization has significantly influenced the effectiveness of multistakeholder partnerships, especially in rural development and microfinance initiatives.

Partnerships among government bodies, private financial institutions, and self-help groups have expanded credit access for small-scale entrepreneurs and farmers (ElDidi, Rawat, Meinzen-Dick, and Chaturvedi, 2021). This financial inclusion has improved economic resilience, enabling stakeholders to contribute more meaningfully to joint projects (Singh, 2024). Effective mobilization of funds from international donors and development banks has also fostered innovation in sustainable agriculture and renewable energy sectors (MacDonald, Clarke, and Huang, 2022). Consequently, financial access has not only improved livelihood outcomes but also strengthened collaboration and accountability among partners, promoting equitable growth.

In Spain, service support as an aspect of resource mobilization has been instrumental in ensuring effective multistakeholder partnerships, particularly within social welfare and environmental management programs. The integration of technical assistance, capacity-building services, and advisory support from both public and private sectors has enhanced project implementation efficiency (Moreno-Serna, Purcell, Sánchez-Chaparro, Soberón, Lumbreras, and Mataix, 2020). Partnerships in renewable energy and rural tourism have thrived due to the government's investment in supportive infrastructure and training programs (Serna and Chaparro, 2021). Additionally, digital platforms have facilitated service delivery and communication among partners, ensuring timely coordination and problem-solving (Gortazar, 2024). These service-based resources have thus reinforced institutional trust, improved responsiveness, and sustained long-term collaboration among stakeholders.

In Senegal, the influence of input access on the effectiveness of multistakeholder partnerships has been demonstrated through agricultural and environmental programs that rely on diverse resource contributions. Access to essential inputs such as seeds, technology, and infrastructure from both governmental and non-governmental actors has strengthened collaborative outcomes (Ndione, Tall, Sall, Ciss, Rousseau, Amarnath, and Okem, 2023).

Partnerships among farmers' associations, research institutions, and international agencies have enabled local producers to adopt sustainable practices, thereby enhancing productivity and resilience (Ozor, Nwobodo, Nyambane, Muhatiah, and Nwakaire, 2025). The integration of technical input and shared resources among partners fosters mutual learning and capacity building, ensuring that projects remain sustainable and impactful over time (Staeger, 2023).

In Cameroon, financial access has been identified as a critical determinant of successful multistakeholder partnerships, particularly in community development initiatives. Limited access to credit and financial instruments often constrains local actors, yet partnerships that include financial institutions and donor agencies have bridged these gaps (Nkangu, Obegu, Ngo, Wanda, Sinsai, Kepgang, and Yaya, 2024). Collaborative funding models, including microfinance and public-private grants, have enabled community groups to expand operations and maintain accountability (AjebeNnoko, Juscar, and Brown, 2024). These financial partnerships promote transparency and inclusivity, ensuring that marginalized groups participate effectively in decision-making and project implementation (Tchouankam and Ngaha, 2020).

In Burkina Faso, service support plays a pivotal role in sustaining multistakeholder partnerships, particularly in sectors such as water management and rural development. When stakeholders receive consistent technical support, capacity-building services, and policy guidance, the overall performance of partnerships improves significantly. Training programs facilitated by NGOs and international partners have enhanced the ability of local communities to manage shared resources efficiently. Furthermore, coordinated service delivery across sectors—such as health, agriculture, and education—ensures long-term engagement and reinforces trust among partners, leading to more cohesive and effective outcomes (Ndione, Tall, Sall, Ciss, Rousseau, Amarnath, and Okem, 2023).

In Uganda, access to inputs plays a vital role in strengthening multistakeholder partnerships, particularly in agricultural and community development initiatives. Collaborative programs involving government agencies, NGOs, and private sector actors have enhanced the availability of agricultural inputs such as seeds, fertilizers, and technology to rural farmers (Nuwagaba, Molokwane, Nduhura, Tshombe, and Muhwezi, 2022). However, uneven distribution and logistical constraints have occasionally undermined partnership efficiency (Mwesigwa, Nanteza, Mayengo, Nabwami, and Tumwesige, 2024). Studies highlight that effective input mobilization encourages greater participation and ownership among stakeholders, leading to improved productivity and sustainability of joint projects (Atuhaire, Bahati, Atukunda, Kindiki, Namubiru, and Kyohairwe, 2024). Conversely, limited coordination between partners often results in duplication of efforts and inefficient resource utilization, emphasizing the importance of structured input mobilization frameworks for partnership success.

In Tanzania, financial access has emerged as a decisive factor influencing the success of multistakeholder partnerships. Effective financial mobilization has enabled the pooling of funds from diverse source government budgets, donor agencies, and community contributions to support projects in health, education, and environmental management (Nuhu, Mpambije, and Ngussa, 2020). Initiatives such as the Tanzania Social Action Fund demonstrate how inclusive financing structures enhance transparency and accountability within partnerships (Sigalla, Tumbo, and Joseph, 2021). However, bureaucratic inefficiencies and delayed disbursements still impede consistent implementation. Strengthening financial mobilization mechanisms through digital financing tools and decentralized fund management has been found to improve partnership responsiveness and long-term sustainability (Mrema, 2024).

In Rwanda, service support mechanisms have proven critical for ensuring the effectiveness of multistakeholder partnerships, particularly in public service delivery and infrastructure development. The Rwandan government’s collaboration with international organizations and

local cooperatives has facilitated the provision of technical training, advisory services, and capacity-building programs that empower local actors (Kyembwa and Kwena, 2025). These service support structures enhance coordination, trust, and accountability among partners (Tuyishime, Hahirwa, Njunwa, and Nyiligira, 2025). Nonetheless, disparities in institutional capacities and limited technical expertise in rural areas occasionally hinder the full potential of partnerships. Research underscores that sustained service support and knowledge-sharing platforms are central to maintaining functional, adaptive, and outcome-oriented partnerships (Gaudence and de Dieu Dushimimana, 2025).

In Nairobi County, resource mobilization through effective input access has significantly influenced the success of multistakeholder partnerships, particularly in urban development and environmental management initiatives. Collaboration between county authorities, private investors, and community-based organizations has enhanced the accessibility of critical inputs such as technical expertise, equipment, and data-sharing platforms (Musila, 2023). These partnerships have improved the planning and implementation of sustainable projects by pooling diverse resources and knowledge bases (Ogada, Koros, and Adhiambo, 2023). Moreover, the availability of quality inputs has led to more efficient project execution, reducing redundancy and enhancing accountability across stakeholders. Such coordinated input mobilization has strengthened stakeholder trust and improved the long-term sustainability of joint interventions (Ndeke, 2023).

In Makueni County, financial access plays a pivotal role in determining the effectiveness of multistakeholder partnerships aimed at improving agricultural productivity and water resource management. The county's participatory budgeting approach and the establishment of the Makueni County Development Fund have enhanced stakeholders' capacity to jointly fund community projects (Kituku, 2020).

Partnerships involving local cooperatives, NGOs, and donor agencies have expanded financing channels and introduced transparent fund management mechanisms (Kioko and Muchelule, 2023). This financial inclusivity has enabled the implementation of projects that address local priorities, thereby fostering ownership and accountability. Enhanced financial access thus ensures that partnership activities remain consistent, well-coordinated, and resilient to funding disruptions (Kabwere, 2024).

In Kisumu County, service support has emerged as a key determinant of effective multistakeholder partnerships, particularly in the health and sanitation sectors. The integration of public health institutions, private healthcare providers, and international organizations has strengthened service delivery through shared infrastructure and technical training (Omondi, 2023). County-level coordination units ensure that services are equitably distributed and responsive to community needs (Otieno, 2025). Regular stakeholder consultations and feedback mechanisms promote adaptive management, allowing services to be adjusted to emerging challenges. As a result, the partnerships have achieved measurable improvements in health outcomes, including better disease surveillance and sanitation coverage. This demonstrates that consistent service support underpins the sustainability and impact of multistakeholder collaborations (Apondo, 2021).

### 2.6 Monitoring and Evaluation and Sustainability of Dairy Projects

Monitoring and evaluation (M&E) play a vital role in ensuring partnership effectiveness through feedback mechanisms, performance tracking, and reporting practices. Continuous feedback allows partners to identify gaps and make timely improvements. Systematic performance tracking provides evidence of progress toward shared goals, while transparent reporting enhances accountability and trust among stakeholders (Shah and Guild, 2022).

A robust M&E framework supports learning, adaptation, and informed decision-making, ensuring that multistakeholder partnerships remain results-oriented, responsive to contextual changes, and capable of achieving sustainable and impactful outcomes.

In Brazil, feedback mechanisms have played a central role in enhancing the accountability and adaptability of multistakeholder partnerships, particularly in environmental and social development initiatives. Through participatory monitoring frameworks, local communities, NGOs, and government agencies exchange regular feedback that informs project adjustments and fosters shared ownership (Willetts, Al'Afghani, Qowamuna, Karama, Njoroge, Omufwoko, and Roaf, 2022). For instance, sustainable agriculture programs supported by the Amazon Fund employ structured stakeholder consultations to ensure that partners' perspectives shape implementation strategies and correct inefficiencies early in the process (Maskey, 2020). This continuous flow of information has strengthened coordination among actors, enabling partnerships to align their objectives with community needs and improve responsiveness to emerging challenges, ultimately enhancing overall project effectiveness (Koirala, Khadka, Neupane, and KC, 2024).

In Germany, performance tracking has been institutionalized as a key component of multistakeholder partnership effectiveness, especially in energy transition and climate governance programs. The government, private sector, and civil society collaboratively use performance indicators such as emissions reduction, energy efficiency, and innovation uptake to measure progress against shared goals (Suto and Takehara, 2025). Regular evaluation cycles and benchmarking tools enable partners to identify performance gaps, streamline resource allocation, and enhance operational efficiency (Sato, 2021). Moreover, transparent sharing of progress metrics fosters trust and reinforces mutual accountability among partners. This systematic approach to tracking performance has made German partnerships models of evidence-based management and policy integration (Amanuma, Onoda, and Olsen, 2024).

In India, reporting practices have become a cornerstone of multistakeholder partnership success, particularly in rural development and public health sectors. Partnerships such as the National Rural Health Mission rely on comprehensive reporting systems that document progress, financial expenditures, and social impact (Rajendran, Nayak, Siva, Phagdol, Pai, D'Souza, and Noronha, 2025). These reports are often disseminated through digital platforms and public audits, promoting transparency and encouraging stakeholder participation (Radhika and Kumar, 2025). Regular reporting not only allows for continuous learning but also ensures that external donors and communities are informed about outcomes and challenges. This practice has strengthened the credibility and sustainability of collaborative initiatives, as transparent documentation of achievements and constraints helps refine strategic planning and improve partnership efficiency over time (Singh, 2024).

In Nigeria, effective feedback mechanisms have been found to strengthen multistakeholder partnerships by promoting transparency, accountability, and adaptive learning. A study on agricultural and health partnerships revealed that structured feedback loops among stakeholders allowed for continuous improvement in project design and execution, thereby enhancing long-term sustainability (Ogar and Idajor, 2024). Furthermore, digital platforms for real-time feedback have enabled partners to address implementation challenges promptly, improving trust and collaboration (Oruwari, Obunwa, Ahuchogu, and Ayuba, 2024). However, limited technological infrastructure and inconsistent stakeholder participation in feedback sessions were identified as barriers to optimal partnership performance. Hence, developing inclusive and accessible feedback systems remains crucial for strengthening coordination and responsiveness among diverse stakeholders in Nigeria's development initiatives (Anabaraonye, Anukwonke, Samuel, Dibia, Olisah, and Ezeukwu, 2022).

In Cameroon, performance tracking has emerged as a vital determinant of partnership effectiveness, particularly in public health and environmental programs. Studies have indicated that the establishment of clear performance indicators and regular assessments facilitated accountability among stakeholders and guided evidence-based decision-making (Mukhawa and Magau, 2024). The use of monitoring scorecards helped identify gaps in implementation and allocate resources efficiently across partner organizations (Maqhubela, 2025). Nevertheless, inadequate technical capacity and fragmented data collection systems often limited the consistency of tracking outcomes. Strengthening institutional frameworks and harmonizing monitoring tools have been recommended to enhance the precision and timeliness of partnership evaluations in Cameroon (Bimpong and David, 2024).

In Zambia, reporting practices significantly influenced the effectiveness of multistakeholder partnerships by ensuring transparency and mutual accountability. According to recent evaluations, consistent and standardized reporting formats enabled partners to communicate progress effectively, align objectives, and make informed decisions (Yeleliere, Nyamekye, Antwi-Agyei, and Boamah, 2022). The integration of participatory reporting approaches, where all stakeholders contribute to progress documentation, was shown to foster shared ownership and inclusivity (Faanu and Andrews, 2025). However, challenges such as delayed submission of reports, poor data quality, and inadequate dissemination of findings were noted. To improve partnership outcomes, it is essential that Zambia institutionalizes digital and participatory reporting systems that promote accuracy, accessibility, and stakeholder engagement (Mukhawa and Magau, 2024).

In Tanzania, feedback mechanisms have been instrumental in enhancing the effectiveness of multistakeholder partnerships, particularly in community development and agricultural programs. Regular stakeholder consultations, participatory evaluations, and beneficiary feedback loops have improved project ownership and adaptive learning among partners (Sanka,

2024). The incorporation of digital feedback tools has allowed for real-time data sharing and adjustments in project implementation (Faki, Matoka, and Mutasa, 2024). This inclusivity has strengthened trust and accountability among stakeholders, ensuring that interventions remain responsive to community needs. Consequently, effective feedback mechanisms have enhanced coordination among government agencies, non-governmental organizations, and local communities, leading to more sustainable outcomes in multistakeholder initiatives (Katikiro, Kweka, Minja, Namkesa, and Ponte, 2021).

In Uganda, performance tracking has been a critical component of monitoring and evaluation systems that determine the success of multistakeholder partnerships. The use of key performance indicators (KPIs) and performance scorecards in initiatives such as health and education programs has enabled stakeholders to assess progress systematically (Magoola, Mwesigwa, and Nabwami, 2023). Through continuous monitoring, project managers have been able to identify implementation bottlenecks early and provide timely corrective actions (Ebubedike, Dawadi, Alla-Mensah, Kwaibwe, Kamunvi, Cingtho, and Ngobi, 2024). The government's emphasis on results-based management frameworks has encouraged transparency and accountability in joint initiatives, enhancing partners' confidence and shared responsibility for outcomes. As a result, performance tracking has significantly contributed to achieving program efficiency and effectiveness (Osumba and Recha, 2022).

In Rwanda, reporting practices within monitoring and evaluation frameworks have reinforced the effectiveness of multistakeholder partnerships by fostering data-driven decision-making and accountability. The establishment of standardized reporting templates and digital dashboards has facilitated consistent communication among partners, including government agencies, donors, and community organizations (Ufitimfura and Juma Amolo, 2025). Regular progress reports and performance audits have improved transparency and provided a foundation for policy learning and resource reallocation (Lucien and Amolo, 2025).

Furthermore, annual stakeholder review meetings have strengthened collaboration by ensuring that all partners are informed and engaged in assessing project outcomes. Therefore, structured reporting practices have played a vital role in sustaining effective coordination and shared commitment within Rwanda's multistakeholder development programs (Ruhumuriza and de Dieu Dushimimana, 2024).

In Kisumu County, feedback mechanisms have played a crucial role in strengthening the effectiveness of multistakeholder partnerships, particularly in health and water management projects. Regular stakeholder meetings and community dialogue forums have been used to gather feedback on project performance and service delivery (Karumba, Oluoch, Mutua, Gathara, Fuller, English, and Maina, 2024). These engagements allow stakeholders to identify challenges early and propose joint solutions that enhance accountability and transparency (Mulumba and Muchelule, 2024). The county government's use of open feedback platforms has also improved coordination between public institutions, private actors, and local communities. By ensuring that the voices of all partners are heard and integrated into planning and decision-making, Kisumu County has enhanced trust, responsiveness, and the overall sustainability of its collaborative development initiatives (Waroinge, Kirima, and Bichage, 2024).

In Turkana County, performance tracking has been instrumental in promoting accountability and efficiency among development partners working in humanitarian, education, and infrastructure programs. The county's monitoring frameworks emphasize continuous assessment through indicators such as project milestones, timelines, and resource utilization (Farrah and Ng'ang'a, 2022). Regular evaluations by both governmental and non-governmental stakeholders help ensure that activities stay aligned with partnership objectives (Otundo Richard, 2024). Data collected from field visits and progress reports enable early identification of bottlenecks and facilitate timely adjustments.

These practices have improved transparency and coordination among partners, leading to more consistent project outcomes. Turkana's structured tracking systems therefore help sustain collaboration and ensure that partnerships achieve their intended goals (Wambugu, Osinga, Murk, and Lamers, 2025).

In Machakos County, strong reporting practices have enhanced the coordination and transparency of multistakeholder partnerships in agriculture, waste management, and community development. Partners consistently document project progress, challenges, and achievements, allowing for clear communication and accountability (Samwel, Micheni, Susi, Nicholas, and Kemuma, 2023). Periodic reports shared across departments and organizations enable stakeholders to review outcomes, align strategies, and make informed decisions (Kioko, 2025). This culture of open reporting has minimized duplication of efforts and fostered a sense of shared responsibility among participants. Through accessible and timely reporting, Machakos County has strengthened stakeholder confidence and improved the implementation of joint initiatives, demonstrating how structured communication supports effective monitoring and evaluation across development sectors (Otundo Richard, 2024).

## 2.7 Research Gaps

The table present the gaps identifying in the empirical literature.

**Table 2.1: Research Gap**

| Authors (Year) | Study Title | Research Gap | How to Fill the Gap | Focus of Current Study in Addressing the Gap |
|---|---|---|---|---|
| Raupach-Sumiya (2024) | Relevance, Potentials and Success Factors of Regional Multi-Stakeholder Cooperation for Corporate Decarbonization | Focuses on success factors in Germany but limited empirical linkage to M&E practices in multi-stakeholder dairy projects. | Conduct empirical measurement of M&E components (feedback, performance tracking, reporting) within dairy partnerships. | Apply M&E indicators to assess partnership effectiveness in dairy projects. |
| MacDonald, Clarke & Huang (2022) | Multi-stakeholder partnerships for sustainability: Designing decision-making processes for partnership capacity | Describes decision processes theoretically but lacks county-level empirical tests in Kenya. | Carry out county-level case studies and quantitative assessment of decision participation effects. | Test how decision participation affects coordination and outcomes in Kenyan dairy partnerships. |
| Jo (2024) | Differential effects of collaborative partners on financial and growth outcomes in ventures in South Korea | Context-specific (Korea) findings; limited transferability to agricultural/dairy sector in Kenya. | Replicate analysis in Kenyan dairy multi-stakeholder contexts to assess external validity. | Examine partner composition and financial outcomes in dairy cooperatives. |
| Matzembacher et al. (2021) | Analysis of multi-stakeholder initiatives to reduce food loss and waste in Brazil | Focus on food loss; scarce attention to resource mobilization and service support in | Investigate input access and service support within dairy value-chain partnerships. | Assess how resource mobilization influences dairy project sustainability. |

| | | | | |
|---|---|---|---|---|
| | | dairy value chains. | | |
| Nwagwu (2020) | Partnering for Sustainable Development in Nigeria | Broad overview of partnerships but limited on monitoring & evaluation mechanisms and reporting practices. | Integrate M&E indicators and report-practice assessments in partnership evaluations. | Measure feedback and reporting practices within multi-stakeholder dairy projects. |
| Musila (2023) | Effects of Strategic Partnership on Performance of Non-governmental Organizations in Nairobi, Kenya | NGO-focused; lacks focus on agricultural cooperatives and operational M&E systems. | Include dairy cooperatives and examine their M&E and resource mobilization frameworks. | Apply strategic partnership measures to dairy cooperatives and assess M&E role. |
| Kituku (2020) | Influence of stakeholder participation on performance of water projects funded by Makueni County Government | Water-sector centric; limited insights into financial access and input mobilization for agricultural partnerships. | Compare stakeholder participation effects across sectors including dairy projects. | Investigate participatory budgeting and input access in county-level dairy initiatives. |
| Omondi (2023) | Stakeholder Engagement Practices and Implementation of Modernized Market Projects in Kisumu County | Examines market projects; limited measurement of performance tracking and reporting systems. | Embed performance tracking metrics and evaluate their association with project outcomes. | Assess how performance tracking improves market access for dairy producers. |
| Willetts et al. (2022) | Strengthening multi-stakeholder engagement and mutual accountability in water, sanitation and hygiene: Cross-country synthesis | Cross-sector synthesis with limited sector-specific M&E instrument adaptation for dairy partnerships. | Adapt cross-country M&E tools to dairy sector and pilot in county case studies. | Use adapted M&E tools to capture feedback mechanisms in dairy projects. |
| Koirala et al. (2024) | Guidelines for developing a | Guidelines are context-specific | Pilot digital reporting and | Introduce and evaluate digital |

| | | | | |
|---|---|---|---|---|
| | multi-stakeholder agriculture knowledge-hub for strengthening mixed farming systems in Nepal's mid-hills | and do not empirically test reporting practices or digital feedback tools. | feedback platforms in dairy partnerships and evaluate uptake. | reporting platforms for enhanced feedback in dairy cooperatives. |
| Sigalla (2024) | Examining the Implementation of Public-Private Partnership Model in Primary Education Provision in Kigamboni Municipality, Tanzania | Focus on education PPPs; limited evidence on financial mobilization mechanisms applicable to agricultural partnerships. | Analyze PPP financing models and adapt best practices to dairy multi-stakeholder financing. | Assess PPP-derived financing mechanisms for county-level dairy projects. |
| Nuhu, Mpambije & Ngussa (2020) | Challenges in health service delivery under public-private partnership in Tanzania | Identifies logistical and coordination challenges but limited transferable solutions for resource mobilization in rural dairy systems. | Evaluate logistics, input distribution, and financing models within dairy partnership contexts. | Examine logistical bottlenecks and propose input distribution models for dairy cooperatives. |
| Suto & Takehara (2025) | Stakeholder Engagement and Innovation in Japan | High-income context; lacks relevance tests in low-resource rural dairy settings. | Test which engagement models translate to resource-constrained county contexts in Kenya. | Adapt engagement-for-innovation practices to smallholder dairy partnerships. |
| Rajendran et al. (2025) | Stakeholder engagement in healthcare research in India–A systematic review | Systematic review in health; limited empirical translation to agricultural/dairy partnerships and M&E. | Use review insights to design engagement and reporting templates tailored to dairy projects. | Develop and validate stakeholder engagement templates for dairy M&E. |

| | | | | |
|---|---|---|---|---|
| Nkangu et al. (2024) | The role of intersectoral collaboration and continuous stakeholder engagement in the implementation of the BornFyne PNMS project in Cameroon | Shows intersectoral benefits but provides limited measurement of performance-tracking tools across sectors. | Introduce standardized KPIs and scorecards for cross-sector dairy partnerships. | Implement and test standardized performance scorecards in dairy multi-stakeholder platforms. |
| Ndione et al. (2023) | Mapping of adaptation interventions in Senegal | Mapping useful but lacks focused evaluation of reporting practices and their effect on uptake of interventions. | Conduct impact evaluation linking reporting formats to intervention uptake in dairy-related initiatives. | Investigate how reporting practices influence adoption of adaptation measures by dairy farmers. |
| ElDidi et al. (2021) | Polycentricity and multi-stakeholder platforms: Governance of the commons in India | Theoretical governance insights but limited operationalization of M&E metrics in smallholder value chains. | Operationalize polycentric governance with measurable M&E indicators within dairy cooperatives. | Translate polycentric governance into measurable monitoring frameworks for dairy partnerships. |
| Tovar (2020) | Can Multi-Stakeholder Forums Promote Balanced Power Relations? Comparative Analysis in Brazil | Analytical comparison but limited quantitative evidence on resource mobilization and feedback mechanisms. | Combine qualitative forum analysis with quantitative measures of input access and feedback efficacy. | Measure power dynamics alongside input access and feedback in dairy multi-stakeholder forums. |
| Ratner et al. (2022) | Multistakeholder platforms for natural resource governance: lessons from eight landscape-level cases | Case lessons are broad; specific gaps exist on standardized reporting and performance tracking for value chains like dairy. | Develop standardized reporting templates and test them in dairy landscape platforms. | Pilot standardized reporting and evaluate effect on coordination and outcomes in dairy landscapes. |

## 2.8 Summary of the Chapter

This chapter provides a detailed review of literature on multi-stakeholder practices and their impact on the sustainability and effectiveness of dairy projects. It focuses on four core dimensions strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation as essential pillars of successful partnerships. Under strategic planning, the literature emphasizes that clear goals, participatory decision-making, and shared vision foster coordination, accountability, and collective ownership. In stakeholder engagement, effective communication, inclusivity, and collaboration are shown to enhance transparency, trust, and joint problem-solving. Resource mobilization is highlighted as critical, with access to inputs, finances, and service support driving innovation, equity, and operational efficiency. Monitoring and evaluation (M&E) is identified as a cornerstone for ensuring transparency and continuous learning through feedback systems, performance tracking, and reporting. The discussion is guided by Stakeholder Theory and the Resource-Based View, which explain how inclusivity, collaboration, and optimal resource use promote sustainable outcomes. Notably, the review reveals gaps in empirical studies on M&E, financial mobilization, and stakeholder participation in dairy projects. This study, therefore, aims to bridge these gaps by investigating how these four dimensions collectively shape the effectiveness and sustainability of multi-stakeholder dairy partnerships.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

The chapter presents the research methodology adopted to achieve the study objectives. It outlines the systematic procedures and approaches that guide the sampling, data collection, analysis, and interpretation of data. The chapter begins by describing the study site, research design, and target population. It then details the sample size determination, sampling procedures, the tools and methods used for data collection. Additionally, it explains the data collection procedures, data analysis techniques, and concludes with a discussion of the ethical considerations that guide the study to ensure integrity, confidentiality, and adherence to research ethics.

## 3.2 Study Site

The study was conducted at Githunguri Dairy Farmers' Cooperative Society (GDFCS), located in Githunguri Sub-County, Kiambu County, Kenya. Githunguri lies approximately 45 kilometers north of Nairobi and is situated within Kenya's central highlands, an area characterized by fertile soils and favorable climatic conditions for dairy farming. The region experiences bimodal rainfall patterns, with an average annual precipitation of about 1,200 mm and moderate temperatures ranging between 14°C and 26°C, making it one of the most suitable zones for intensive smallholder dairy production. Economically, Githunguri is predominantly an agrarian community, with dairy farming serving as the backbone of household livelihoods. The GDFCS, established in 1961, has grown into one of the largest dairy cooperatives in Kenya, with over 12,000 active members. Most members are smallholder farmers who depend on dairy farming as their main source of income, and whose livelihoods are directly tied to the sustainability of cooperative projects.

The cooperative manages milk collection, processing, and marketing through its Fresha Dairy brand, which supplies a wide range of processed products both locally and regionally. This institutional framework offers an ideal setting for studying multistakeholder practices since it integrates farmers, management teams, board members, financiers, and input suppliers under a coordinated production and marketing system.

Institutionally, GDFCS is governed by an elected Board of Directors supported by a professional management team that oversees day-to-day operations. The cooperative's structure allows for vertical and horizontal linkages across various stakeholder levels, farmers, management, financiers, and external partners, making it a rich case for investigating how multistakeholder practices enhance sustainability in agricultural projects.

### 3.3 Research Design

A research design is the overall plan, structure, and strategy that guides the process of collecting, analyzing, and interpreting data in order to answer the research questions and test hypotheses (Ganesha & Aithal, 2022). It provides the logical framework that links the research problem to the methods and procedures used to generate credible and reliable findings. This study adopts a convergent parallel mixed-methods design, which allows simultaneous collection, analysis of both quantitative and qualitative data as well as triangulation of the study findings. It integrates the strengths of both methodological approaches; quantitative precision and qualitative depth, within a single phase of research, thereby enhancing the validity, richness, and interpretive power of the findings (Creswell & Plano Clark, 2018). Quantitative strand, cross-sectional design, focus on measurable relationships between the key variables: strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation as the independent variables, and the sustainability of dairy projects as the dependent variable.

Conversely, the qualitative strand, exploratory design, is designed to capture and provide interpretive insight into *how* and *why* certain practices influence sustainability, complementing the quantitative strand by revealing contextual explanations for observed patterns. It particularly illuminates areas where numerical findings require deeper meaning, such as differences in implementation practices or organizational culture that shape sustainability outcomes.

### 3.4 Target Population

The study targets 12,000 active smallholder dairy farmers who are registered members of the Githunguri Dairy Farmers' Cooperative Society (GDFCS, 2025). This group forms the primary respondents, as they directly participate in milk production, supply, and sustainability practices that define the cooperative's success. As active participants in the cooperative system, these farmers experience firsthand the effects of these multi-stakeholder practices on productivity, income stability, and environmental management, making their perspectives essential for understanding the effectiveness of multistakeholder partnerships on the sustainability of dairy projects. Additionally, the study includes six key informants drawn from various institutional and managerial levels to offer strategic and institutional perspectives that complement the farmers' operational experiences. These include: two cooperative leaders (Chairperson and Board Representative) to provide governance and planning perspectives; one processor representative from Fresha or Zito plants to address processing, quality control, and market integration; one county officials (Livestock Officer or Extension Coordinator) to highlight policy and regulatory issues; one partner organization representative from Tetra Pak or Maziwa Faida PPDP to contribute insights on donor and private-sector collaboration; and one input and value-chain supplier (feed and veterinary input provider) to elaborate on supply.

This configuration ensures diverse yet complementary perspectives across governance, production, policy, partnership, and supply, offering a holistic understanding of the institutional and operational factors influencing the sustainability of dairy projects in Githunguri.

**Table 3.1: Target Population**

| Category | Target population |
|---|---|
| Smallholder dairy farmers (primary respondents) | 12,000 |
| Cooperative Leaders (Key Informants) | 2 |
| Processor Representative (Key Informant) | 1 |
| County Official (Key Informant) | 1 |
| Partner Organization Representative (Key Informant) | 1 |
| Input/Value-Chain Supplier (Key Informant) | 1 |
| **Total** | **12,006** |

### 3.5 Sample size and sampling procedures

#### 3.5.1 Sample size

A sample size is a portion of the population chosen to reflect the greater population (Levy & Goldfarb, 2021). The study employs the Yamane's formula to determine the sample size because it is applicable when the target population is greater than 10,000 items, definite and with a define precision value (usually 5%) at 95% confidence level. The formula is given as;

$n=N/1 + N(e^2)$

Where; -

n = sample size

N= population size

e =the level of precision

Substituting in the formula to get

$12000/1+ 12000(0.05^2)$

12000/1+ 12000(0.0025)

12000/1+ 30

12000/ 31= 387

Therefore, the sample size is 399, including 387 smallholder dairy farmers and 6 key informants.

**Table 3.2: Sample Size Distribution**

| **Category** | **Target population** |
|---|---|
| Smallholder dairy farmers (primary respondents) | 387 |
| Cooperative Leaders (Key Informants) | 2 |
| Processor Representative (Key Informant) | 1 |
| County Official (Key Informant) | 1 |
| Partner Organization Representative (Key Informant) | 1 |
| Input/Value-Chain Supplier (Key Informant) | 1 |
| **Total** | **399** |

**Source: Researcher (2026)**

### 3.5.2 Sampling Procedures

Sampling procedures are the methods or processes the researcher uses to pick the sample for the study (Kothari, 2014). The study used simple random sampling to select 387 respondents from 12,000 active farmers registered under the Githunguri Dairy Farmers' Cooperative Society.

This approach is appropriate because the farmers share homogeneous characteristics, they operate under the same cooperative system, adhere to common production standards, and are influenced by similar management, market, and environmental conditions. Therefore, each farmer has an equal chance of being included in the sample, minimizing selection bias and ensuring that the findings are statistically representative of the entire cooperative membership.

Additionally, the study purposively sampled six key informants. This sampling technique is suitable because it enables the researcher to select respondents based on their roles, expertise, and direct involvement in decision-making, coordination, and oversight of dairy partnerships. Purposive sampling ensures that the study captures rich, context-specific insights that cannot be obtained through random selection, thereby deepening understanding of the structural, managerial, and policy dimensions influencing the sustainability of dairy projects in Githunguri.

### 3.6 Data Collection Instruments

The study employed a structured questionnaire and a semi-structured interview guide to collect quantitative and qualitative data respectively. The structured questionnaire was administered to the 387 randomly selected smallholder dairy farmers who were active members of the Githunguri Dairy Farmers' Cooperative Society. It consisted mainly of closed-ended questions organized on a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." The tool was organized into six thematic sections capturing the study's key constructs. The first section collected demographic and background information such as age, gender, herd size, years of dairy experience, and membership duration.

The subsequent sections (Sections B, C, D, E, F, and G) assessed respondents' perceptions on strategic planning, stakeholder engagement, resource mobilization, monitoring and evaluation, institutional leadership culture, and sustainability of dairy projects, respectively. The statements were formulated based on indicators derived from the conceptual framework. The structured format facilitated statistical analysis using SPSS to test hypotheses and examine relationships among variables.

To complement the quantitative data, the study also employed a semi-structured interview guide targeting six purposively selected key informants representing strategic, operational, and support functions within the dairy value chain. The guide contained open-ended probing questions designed to elicit detailed information in line with the study objectives. It allowed flexibility for participants to elaborate on emerging issues and provide in-depth explanations based on their institutional experiences. The integration of the two tools ensured that the study captured both the breadth and depth of multi-stakeholder practices influencing the sustainability of dairy projects in Githunguri, thereby generating comprehensive evidence to inform practice, policy, and theory.

### 3.7 Pilot Study

The pilot study was conducted among smallholder dairy farmers affiliated with the Limuru Dairy Farmers' Cooperative Society in Kiambu County to evaluate the effectiveness of the research instruments by identifying ambiguities, inconsistencies, and irrelevant items, while also testing the resources required for data collection. The feedback used to refine the tools for improved validity, reliability, and accuracy in the main study. Limuru shares similar socio-economic, climatic, and operational characteristics with the Githunguri Dairy Farmers' Cooperative Society, including comparable production systems, cooperative management structures, and stakeholder partnerships within the dairy value chain.

Conducting the pilot in Limuru ensures that the tools are tested in a context closely resembling the main study area while preventing bias or contamination of the actual study population. The pilot involved 39 respondents, of whom 31 completed and returned the questionnaires, yielding a response rate of 79%. The pilot study was undertaken to assess the clarity, relevance, validity, and reliability of the questionnaire and interview guide, as well as to identify potential challenges that could arise during the main data collection exercise.

### 3.7.1 Validity test for the tools

Validity test whether the research instruments accurately measure the intended constructs. The study employed content validity, face validity and construct validity. Content validity was established to determine whether the research instruments comprehensively cover all relevant dimensions of the study variables, strategic planning, stakeholder engagement, resource mobilization, institutional leadership culture and sustainability of dairy projects. The researcher submitted the draft questionnaire to a panel of experts such university supervisors, to independently review the instruments to assess the representativeness, clarity, and relevance of each item. Their feedback was used to revise or eliminate items that are ambiguous, repetitive, or not directly aligned with the study objectives. The Scale Content Validity Ratio (S-CVR) was also computed based on expert ratings to quantify the overall adequacy of the instrument's content coverage. The results presented in table 3.3 below.

**Table 3.3: Content Validity Results**

| Construct | No. of items | CVR range | Scale CVR | Decision |
|---|---|---|---|---|
| Strategic Planning | 9 | 0.58–0.90 | 0.74 | Retained |
| Stakeholder Engagement | 9 | 0.71–0.90 | 0.81 | Retained |
| Resource Mobilization | 9 | 0.32–0.87 | 0.53 | Reviewed |
| Monitoring & Evaluation | 10 | 0.58–0.77 | 0.70 | Retained |
| Leadership Culture | 10 | 0.48–0.97 | 0.66 | Retained |
| Sustainability | 10 | 0.58–0.97 | 0.74 | Retained |

The results showed that most constructs achieved acceptable levels of content validity, with scale CVRs ranging from 0.53 to 0.81. Strategic Planning, Stakeholder Engagement, Monitoring & Evaluation, Leadership Culture, and Sustainability all exceeded the minimum acceptable threshold of 0.355, while Resource Mobilization recorded a relatively lower value of 0.53 but still above the critical level, indicating that most items were relevant and suitable for inclusion in the final instrument.

Additionally, construct validity was also conducted to evaluate whether the instrument appears to measure the intended concepts from the respondents' point of view. During the pilot study, participants were asked to comment on the clarity, simplicity, and logical flow of the questionnaire items. Their feedback guided minor adjustments in wording, sequencing, and formatting to enhance respondent understanding and engagement.

### 3.7.2 Reliability of the Research Instruments (Pilot Study)

Reliability tests the extent to which items within a research instrument consistently measure the same construct. The study employed internal consistency reliability using Cronbach's Alpha coefficient, which evaluates the average correlation among items within each variable section of the questionnaire.

Consequently, the research instruments would be considered reliable and suitable for the main data collection only if they yield a Cronbach's Alpha coefficient of 0.70 or higher during the pilot study. If any variable records an alpha below the acceptable threshold, problematic items would be reviewed, revised, or eliminated to enhance internal consistency before the main data collection.

The pilot study reliability results are presented in Table 3.4.

**Table 3.4: Pilot Study Reliability Results**

| Construct | No. of Items | Cronbach's Alpha | Decision |
|---|---|---|---|
| Strategic planning | 9 | 0.815 | Good |
| Stakeholder Engagement | 9 | 0.965 | Excellent |
| Resource Mobilization | 9 | 0.719 | Acceptable |
| Monitoring & Evaluation | 10 | 0.836 | Good |
| Leadership Culture | 10 | 0.888 | Good |
| Sustainability of Projects | 10 | 0.846 | Good |

The results alpha indicated that all constructs achieved acceptable internal consistency, with coefficients ranging from 0.689 to 0.965. Stakeholder Engagement recorded the highest reliability ($\alpha = 0.965$), indicating excellent internal consistency among its items, while Resource Mobilization recorded the lowest reliability ($\alpha = 0.719$), but still within the acceptable threshold for statistical measurement. Overall, the results demonstrate that all measurement scales were reliable and suitable for use in the main study.

### 3.8 Data Collection Procedures

The data collection process was conducted systematically to ensure the accuracy, credibility, and completeness of both quantitative and qualitative information.

The process began with obtaining all necessary research approvals and ethical clearances. Formal authorization was sought from the Catholic University of Eastern Africa (CUEA) and the National Commission for Science, Technology and Innovation (NACOSTI), which permitted the researcher to conduct fieldwork in Githunguri. Additionally, an introductory letter was presented to the management of the Githunguri Dairy Farmers' Cooperative Society (GDFCS) to obtain institutional consent and cooperation during data collection.

Once approvals were secured, the researcher undertook preparatory activities, including pre-testing of the questionnaire. For the quantitative phase, structured questionnaires were administered to a randomly selected sample of 387 smallholder dairy farmers. A list of all registered active members was obtained from the GDFCS database to create the sampling frame. The selection was done using simple random sampling to ensure equal representation and minimize bias. Data collection took place at milk collection centers, cooperative offices, and training points to maximize accessibility. The questionnaires were self-administered for literate respondents and researcher-assisted for less literate participants through guided reading and clarification to ensure completeness and accuracy of responses. Completed questionnaires were checked daily for completeness and consistency before being securely stored.

For the qualitative phase, appointments were scheduled in advance to accommodate informants' availability, and interviews were conducted in quiet, professional settings such as cooperative offices or county departments. With permission from participants, interviews were audio-recorded and supplemented with notes to capture contextual details and non-verbal cues. Each session lasted between 30 and 60 minutes. Throughout the process, ethical considerations such as informed consent, confidentiality, and voluntary participation were strictly observed. Respondents were briefed on the study purpose, their right to withdraw at any stage, and assurance that data would be used solely for academic purposes. No identifying information was included in the final dataset or report.

### 3.9 Data Analysis Techniques

The study employed both quantitative and qualitative data analysis techniques consistent with the convergent parallel mixed-methods design, integrating numerical results with contextual insights.

Quantitative Data Analysis

Quantitative data obtained from the structured questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS) version 30.0. The analysis began with descriptive statistics such as means, standard deviations, frequencies, and percentages to summarize respondents' demographic characteristics and variable distributions. Inferential statistics were then applied to determine the relationships between the independent variables (strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation) and the dependent variable (sustainability of dairy projects). Specifically, Multiple Linear Regression analysis was used to test the four research hypotheses ($H_{01}$–$H_{04}$). The decision to reject or accept each null hypothesis was based on regression beta coefficients (β) and their corresponding p-values at a 95% confidence level ($p < 0.05$). Two models were specified as follows:

Model 1: Main Effects Model (Without Moderation)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$Y$= Sustainability of Dairy Projects (Dependent Variable)

$X_1$= Strategic Planning

$X_2$= Stakeholder Engagement

$X_3$= Resource Mobilization

$X_4$= Monitoring and Evaluation

$\beta_0$= Constant (Intercept)

$\beta_1 \ldots \beta_4$= Regression Coefficients for respective independent variables

$\varepsilon$= Error term capturing unexplained variance

This model estimates the direct effect of each independent variable on the sustainability of dairy projects. It helped determine which factors have a statistically significant influence and their relative contribution to sustainability outcomes in Githunguri before moderating effect is entered.

Model 2: Moderated Effects Model (Overall Interaction Effect)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_6 (XZ) + \varepsilon$$

Where:

$Y$= Sustainability of Dairy Projects (Dependent Variable)

$X_1$= Strategic Planning

$X_2$= Stakeholder Engagement

$X_3$= Resource Mobilization

$X_4$= Monitoring and Evaluation

$Z$= Moderating Variable (Institutional Leadership Culture)

$XZ$= Combined interaction term between the composite of all independent variables and the moderator

$\beta_0$= Constant (Intercept)

$\beta_1 \ldots \beta_6$= Regression coefficients for respective terms

$\varepsilon$= Error term

For this model, the first four coefficients ($\beta_1 \ldots \beta_4$) captured the direct influence of the independent variables on sustainability. The coefficient $\beta_5$represents the direct effect of institutional leadership culture. The interaction coefficient ($\beta_6$) tests whether the collective influence of the four determinants, strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation on sustainability changes depending on the strength or presence of institutional leadership culture. A statistically significant $\beta_6$implies that leadership culture moderates the overall relationship between multistakeholder partnership practices and sustainability outcomes in Githunguri's dairy projects. Specifically, it would mean that when leadership culture is participatory, transparent, and supportive, the combined effect of these management practices on sustainability is strengthened; conversely, weak leadership culture may dampen or distort this relationship.

Qualitative Data Analysis

Qualitative data were analyzed thematically. The analysis involved transcription of recorded interviews, coding of responses into emerging themes, and organization of patterns that reflected strategic, managerial, and policy perspectives on sustainability. This method captured nuanced insights, lived experiences, and contextual explanations that quantitative techniques may have overlooked. Thematic analysis allowed the researcher to identify how and why certain multi-stakeholder practices succeeded or failed in enhancing sustainability, thereby enriching the interpretation of statistical findings.

Triangulation of Results

Integration of both data strands occurred during the interpretation phase, where triangulation was applied to compare, contrast, and corroborate findings from the quantitative and qualitative analyses. Descriptive perceptions and statistical relationships revealed by regression analysis

were cross-validated with qualitative insights from interviews explaining how engagement mechanisms contributed to sustainability outcomes.

### 3.10 Ethical Considerations

Ethical integrity was maintained throughout the study in line with established academic and institutional standards. Prior to data collection, ethical clearance was obtained from the CUEA Ethics Review Committee and a research permit from NACOSTI, ensuring compliance with national research ethics and institutional protocols. All participants were informed about the purpose of the study, their right to voluntary participation, and their freedom to withdraw at any stage without penalty. Informed consent was obtained through signed consent forms before data collection commenced. Confidentiality and anonymity were strictly observed by assigning identification codes instead of names, ensuring that no personal information could be traced back to respondents.

Academic honesty and transparency guided the entire research process. All sources were appropriately acknowledged to avoid plagiarism, findings were reported accurately without manipulation or fabrication, and interpretations were based solely on collected evidence. The data were stored securely and used exclusively for academic purposes. The study also ensured non-maleficence, meaning no harm, psychological, social, or economic, was caused to participants as a result of participation.

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## 4.1 Introduction

The chapter presents the study findings alongside the discussion in relation to the research objectives. The findings are analyzed, interpreted, and discussed while linking them to the relevant literature reviewed and theoretical foundation in Chapter Two. The chapter begins with the response rate and the reliability analysis of the data collection instruments. Furthermore, it presents descriptive statistics, including frequencies, percentages, means, and standard deviations. The inferential statistical techniques applied include Pearson correlation, and multiple linear regression. The statistical results are presented using frequency tables. Further, the chapter present the qualitative results through verbatim and triangulated with quantitative findings.

## 4.2 Response Rate

Response rate analysis was conducted to determine the proportion of questionnaires that were successfully completed by respondents. Results presented in table 4. 1

**Table 4.1: Questionnaire Response Rate**

| Instrument | Targeted | Returned/completed | Not Returned/ Not complete |
|---|---|---|---|
| Questionnaires | 387 | 318 (82%) | 69 (18%) |
| KII Guides | 6 | 5 | 1 |

Out of 387 structured questionnaires administered to the respondents, 318 were successfully completed, producing a response rate of 82%. Response rate above 70% are generally regarded as acceptable for quantitative research (Kebede, Tona & Fitamo, 2025). Moreover, Iwanaga et

al. (2026) established that quantitative studies require a minimum sample size of 30 subjects. In addition, five of the six targeted key informants participated in the interviews, a response rate of 83%.

The high response rate was facilitated by self-administration of questionnaires, which allowed respondents to fill in the questionnaires themselves and encouraged immediate completion. Data collection was also conducted during break sessions and within the cooperative premises where the respondents were easily accessible, allowing for follow-ups. Assurance of confidentiality and anonymity further encouraged participation, while the questionnaires were structured clearly and designed to require a reasonable amount of time to complete. On the other hand, the 18% non-response rate would be attributed to respondents' not interested in the study purpose, busy work schedules and absence during the period of data collection.

### 4.3 Reliability Test Results (Main Study)

Internal consistency reliability of the study constructs was assessed using Cronbach's Alpha coefficient to determine the degree to which the items measuring each construct were consistent and reliable. Results presented in table 4. 2

**Table 4.2: Main Study Reliability Test Results**

| Variable/Construct | Number of Items | Cronbach's Alpha | Interpretation |
|---|---|---|---|
| Strategic Planning | 9 | 0.719 | Acceptable |
| Resource Mobilization | 9 | 0.718 | Acceptable |
| Stakeholder Engagement | 9 | 0.881 | Good |
| Monitoring and Evaluation | 10 | 0.786 | Acceptable |
| Leadership Culture | 10 | 0.861 | Good |
| Sustainability of Projects | 10 | 0.741 | Acceptable |

These results represent the reliability of the research instrument during the main data collection phase, and are distinct from the pilot study reliability values reported in Chapter Three (Table 3.5). The findings showed that all study constructs attained Cronbach's alpha coefficients exceeding the accepted threshold of 0.70, suggesting that the measurement items were sufficiently reliable for subsequent statistical analysis. Specifically, strategic planning recorded an alpha of 0.719, resource mobilization 0.718, monitoring and evaluation 0.786, Leadership Culture 0.861 and sustainability of dairy projects 0.741, indicating acceptable internal consistency among their respective items. In addition, stakeholder engagement ($\alpha = 0.881$) and leadership culture ($\alpha = 0.861$) demonstrated higher reliability coefficients, reflecting strong internal consistency. Overall, these results confirm that the instrument used in the study produced consistent and dependable measurements across all constructs.

### 4.4 Descriptive Statistics Results: Background Information

The study analyzed respondents' demographic characteristics using frequencies and percentages to describe their attributes. The results are presented in Table 4.3.

**Table 4.3: Descriptive Statistics for Background Information**

| Variable | Response | Count | Percent |
|---|---|---|---|
| Gender | Male | 183 | 57.5% |
| | Female | 135 | 42.5% |
| Age | Below 25 years | 38 | 11.9% |
| | 25–34 years | 154 | 48.4% |
| | 35–44 years | 80 | 25.2% |
| | 45 years and above | 46 | 14.5% |
| Education Level | Diploma/Certificate | 53 | 16.7% |
| | Diploma | 146 | 45.9% |
| | Bachelor's Degree | 96 | 30.2% |
| | Postgraduate Degree | 23 | 7.2% |
| Duration of Membership | Less than 3 years | 20 | 6.3% |
| | 3–5 years | 169 | 53.1% |
| | 6–10 years | 88 | 27.7% |
| | Over 10 years | 41 | 12.9% |
| Farm Size | Less than 1 acre | 169 | 53.1% |
| | 1–3 acres | 121 | 38.1% |
| | 4–6 acres | 28 | 8.8% |

### 4.4.1 Gender

The findings indicate that the majority of the respondents were male, accounting for 183 (57.5%), while female respondents were 135 (42.5%). This suggests a higher representation of male participants in dairy project activities within the cooperative. This distribution reflects the active involvement of men in dairy farming and cooperative participation, particularly in smallholder agricultural systems.

The implication is that both gender perspectives are adequately captured. Gender is an important variable as it may influence decision-making, resource utilization, and participation in multi-stakeholder processes.

### 4.4.2 Age

The results show that the majority of respondents were aged 25–34 years, comprising 154 (48.4%), followed by those aged 35–44 years at 80 (25.2%). Respondents aged 45 years and above accounted for 46 (14.5%), while those below 25 years were the least represented at 38 (11.9%). The findings indicate that most respondents are in their economically active and productive age group, characterized by high engagement in dairy farming and openness to innovation.

### 4.4.3 Education Level

The findings reveal that most respondents held Diploma level qualifications, accounting for 146 (45.9%), followed by those with Bachelor's degree level at 96 (30.2%). Certificate holders were 53 (16.7%), while those with postgraduate qualifications were 23 (7.2%). This suggests that the majority of respondents possess moderate levels of education, which are adequate to support adoption of improved dairy practices and engagement with stakeholders.

### 4.4.4 Duration of Membership in the Cooperative

The results indicate that the majority of respondents had been members of the cooperative for 3–5 years, accounting for 169 (53.1%), followed by those with 6–10 years at 88 (27.7%). Respondents with over 10 years of membership were 41 (12.9%), while those with less than 3 years were 20 (6.3%). This implies that most respondents have moderate experience within the cooperative, enhancing their familiarity with its operations and stakeholder interactions.

### 4.4.5 Farm Size

The findings show that the majority of respondents operated on less than 1 acre of land, accounting for 169 (53.1%), followed by those with 1–3 acres at 121 (38.1%). Only 28 (8.8%) had farm sizes of 4–6 acres. These results indicate that dairy farming within the cooperative is predominantly smallholder-based, which has implications for resource access, productivity, and reliance on multi-stakeholder support systems.

## 4.6 Descriptive Statistics: Strategic Planning

The first study objective was to determine the influence of strategic planning on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County. Strategic planning was assessed through three indicators: goal clarity, decision participation, and vision alignment.

**Table 4.4: Respondents' Opinion on Strategic Planning**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | SD |
|---|---|---|---|---|---|---|---|
| The project goals are well-defined and provide clear guidance for day-to-day operations. | 1 (0.3%) | 0 (0.0%) | 76 (23.9%) | 180 (56.6%) | 61 (19.2%) | 3.94 | .676 |
| Decision-making processes tend to exclude key stakeholders who are directly involved in project activities. | 0 (0.0%) | 2 (0.6%) | 85 (26.7%) | 143 (45.0%) | 88 (27.7%) | 4.00 | .756 |
| There is a shared understanding among participants regarding the overall direction the project intends to take. | 0 (0.0%) | 0 (0.0%) | 104 (32.7%) | 169 (53.1%) | 45 (14.2%) | 3.81 | .660 |
| Strategic objectives are often vague, making it difficult to track progress effectively. | 2 (0.6%) | 2 (0.6%) | 119 (37.4%) | 145 (45.6%) | 50 (15.7%) | 3.75 | .744 |
| Team members actively participate in setting project priorities and action plans. | 0 (0.0%) | 4 (1.3%) | 55 (17.3%) | 208 (65.4%) | 51 (16.0%) | 3.96 | .619 |
| The project's long-term vision is not clearly linked to its short-term activities. | 0 (0.0%) | 2 (0.6%) | 25 (7.9%) | 184 (57.9%) | 107 (33.6%) | 4.25 | .617 |
| Key decisions are reached through consultations that encourage input from different levels of management and beneficiaries. | 2 (0.6%) | 49 (15.4%) | 102 (32.1%) | 119 (37.4%) | 46 (14.5%) | 3.50 | .942 |
| Project strategies are frequently implemented | 8 (2.5%) | 11 (3.5%) | 47 (14.8%) | 149 (46.9%) | 103 (32.4%) | 4.03 | .915 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| without adequate reference to established goals. | | | | | | | |
| The vision guiding the project inspires commitment and unity among those involved. | 10 (3.1%) | 28 (8.8%) | 78 (24.5%) | 169 (53.1%) | 33 (10.4%) | 3.59 | .904 |
| Aggregate Composite Scores | | | | | | 3.87 | .424 |

The findings show that respondents generally agreed that strategic planning influences sustainability, as indicated by an overall mean of 3.87 and a standard deviation of 0.424. This suggests a moderately strong and consistent perception that strategic planning contributes to productivity stability, profitability, and environmental management of dairy projects.

### 4.6.1 Goal Clarity

The findings indicate that goal clarity plays an important role in guiding project operations. A majority of respondents (56.6% agreed and 19.2% strongly agreed) confirmed that project goals are well-defined (Mean = 3.94, SD = 0.676). However, contradictions emerged as 45.6% agreed and 15.7% strongly agreed that strategic objectives are often vague (Mean = 3.75, SD = 0.744), and 79.3% (agree + strongly agree) indicated that strategies are sometimes implemented without reference to goals (Mean = 4.03, SD = 0.915).

The qualitative findings supported quantitative results, revealing that while goals exist, their clarity and consistency vary across stakeholders.

One respondent noted:

*"… The cooperative has clear strategic goals, especially at the top management level, but these goals are not always simplified for farmers to understand and apply …"*

*(KII_1, Male, 04 Feb, 2026)*

Another stated:

*"... Farmers sometimes operate based on routine practices rather than clearly defined goals because communication of those goals is not always consistent. You know, when goals are clearly explained, farmers would improve milk production and management practices, but this clarity is not uniform across all departments ..."*

*(KII_3, Female & KII_2, Male, 04 Feb, 2026)*

These findings suggest that goal clarity exists in the cooperative but is not consistently operationalized. From the Resource-Based View (RBV), clearly defined goals help in the effective deployment of internal resources such as knowledge, skills, and production capacity. Where goals are unclear, resource utilization becomes inefficient, weakening sustainability outcomes. Additionally, as oriented in Stakeholder Theory, poor communication of goals limits stakeholder alignment and reduces collective commitment. These findings agree with Mwangi and Ndiritu (2023) who found that clear strategic goals in agricultural cooperatives improve coordination of farmer activities, leading to increased productivity and sustainability. Similarly, Otieno et al. (2022) established that clarity of project objectives enhances resource allocation efficiency and performance in cooperative-based projects. However, Kariuki (2021) found that goal clarity alone does not significantly influence project sustainability unless supported by strong institutional leadership and monitoring systems. That, in community-based projects, informal practices often override formal goal structures, making goal clarity less influential in determining project outcomes (Abdi & Hassan, 2020).

### 4.6.2 Decision Participation

The findings revealed that while participation exists, it is not fully inclusive. A majority (81.4% agreed) indicating active participation in setting priorities (Mean = 3.96, SD = 0.619).

However, 72.7% (agree + strongly agree) also indicated exclusion of key stakeholders (Mean = 4.00, SD = 0.756). The qualitative findings reinforced the presence of both participation and exclusion as one respondent stated:

*"... Decision-making structures exist, but they are more accessible to leaders than to ordinary farmers. Even though sometimes farmers are consulted, their input is not always reflected in final decisions ..."*

*(KII_2, Male, 09 March 2026)*

Another explained:

*"... Participation tends to happen during meetings, but not all farmers attend, which limits inclusivity. When farmers are fully involved in decision-making, they feel ownership and are more committed to project activities ..."*

*(KII_5, Male, 09 March 2026)*

These findings highlight partial inclusivity. According to Stakeholder Theory, effective stakeholder engagement requires meaningful involvement of all relevant actors in decision-making. Limited participation reduces trust, ownership, and long-term commitment.

In line with the RBV perspective, stakeholder knowledge and experience are valuable intangible resources. Excluding stakeholders means underutilizing these resources, which negatively affects sustainability. The findings are consistent with Oppong and Mathibe (2024), who emphasized that inclusive stakeholder participation enhances organizational performance and sustainability. Similarly, Mukeku (2024) found that participatory decision-making in dairy cooperatives improves farmer commitment and productivity.

Nonetheless, the findings differ from Omondi (2020) who argued that centralized decision-making in cooperatives can improve efficiency and reduce delays in implementation. Similarly, Tumpa and Naeni (2025) found that excessive stakeholder involvement may slow down decision-making and reduce operational efficiency in project environments.

### 4.6.3 Vision Alignment

The findings show moderate inspiration from the project vision but a major disconnect with implementation. While 63.5% agreed indicating vision inspires commitment (Mean = 3.59, SD = 0.904), a large majority (91.5%) agreed that long-term vision is not linked to short-term activities (Mean = 4.25, SD = 0.617). The qualitative findings strongly supported this disconnect that even the cooperative has visions, alignment remain a challenge

One respondent stated:

*"... The cooperative has a strong long-term vision, but translating that vision into daily farm practices remains a challenge ..."*

*(KII_5, Male, 09 March 2026)*

Another explained:

*"... Many activities are implemented without clearly showing how they contribute to long-term goals ..."*

*(KII_1, Male, 09 March 2026)*

Another noted:

*"... Farmers understand the vision in general terms, but they lack clear guidance on how to align their actions with it. This imply there is a gap between planning and execution, especially when it comes to linking strategic vision to operational activities ..."*

*(KII_3, Female, 09 March 2026)*

These findings indicate weak strategic alignment. Misalignment between vision and operations leads to inefficient use of resources, reducing competitive advantage and sustainability. Explained within Stakeholder Theory, lack of alignment reduces shared understanding, weakening collaboration and commitment among stakeholders. The findings agree with Mutua and Kiragu (2023) who emphasized that strategic alignment is critical for achieving sustainable competitive advantage in agricultural cooperatives. However, the findings contrast with Johnson et al. (2020) and Ndegwa (2021) who argued that flexibility rather than strict alignment allows projects to adapt to changing environments and that some cooperative projects succeed despite weak formal alignment due to strong informal coordination mechanisms, respectively.

### 4.7 Descriptive Statistics: Stakeholder Engagement

The second study objective was to assess the effect of stakeholder engagement on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County. Stakeholder engagement was assessed through communication efficiency, inclusivity, and partner collaboration.

**Table 4.5: Respondents' Opinion on Stakeholder Engagement**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| The project often struggles to access quality inputs due to poor supplier networks. | 4 (1.3%) | 4 (1.3%) | 87 (27.4%) | 138 (43.4%) | 85 (26.7%) | 3.93 | .838 |
| Some stakeholders feel excluded from key discussions that affect project outcomes. | 4 (1.3%) | 2 (0.6%) | 66 (20.8%) | 198 (62.3%) | 48 (15.1%) | 3.89 | .698 |
| The communication channels used are effective in keeping all parties informed about ongoing activities. | 0 (0.0%) | 4 (1.3%) | 55 (17.3%) | 208 (65.4%) | 51 (16.0%) | 3.96 | .619 |
| Collaboration among partners is often weak, resulting in duplication of efforts. | 0 (0.0%) | 2 (0.6%) | 25 (7.9%) | 184 (57.9%) | 107 (33.6%) | 4.25 | .617 |
| Stakeholders' opinions are valued and considered when important project decisions are made. | 0 (0.0%) | 33 (10.4%) | 55 (17.3%) | 171 (53.8%) | 59 (18.6%) | 3.81 | .859 |
| There is limited openness in information sharing, which hinders | 4 (1.3%) | 2 (0.6%) | 99 (31.1%) | 163 (51.3%) | 50 (15.7%) | 3.80 | .753 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| coordination and trust. | | | | | | | |
| Joint activities between different partners strengthen teamwork and collective responsibility. | 2 (0.6%) | 4 (1.3%) | 76 (23.9%) | 185 (58.2%) | 51 (16.0%) | 3.88 | .702 |
| Inclusivity is poorly practiced, with certain groups consistently left out of project consultations. | 2 (0.6%) | 2 (0.6%) | 88 (27.7%) | 176 (55.3%) | 50 (15.7%) | 3.85 | .703 |
| Regular meetings and feedback sessions enhance cooperation and mutual understanding among stakeholders. | 2 (0.6%) | 36 (11.3%) | 87 (27.4%) | 129 (40.6%) | 64 (20.1%) | 3.68 | .941 |
| Aggregate Composite Scores | | | | | | 3.89 | .540 |

Majority of the respondents generally perceive stakeholder engagement to influence the sustainability of dairy projects (aggregate composite mean = 3.89; SD = 0.540). This imply that while most respondents acknowledge the importance of stakeholder engagement, their experiences differ across the cooperative.

### 4.7.1 Communication Efficiency

The findings indicate that respondents generally perceive communication channels to be effective, although some limitations exist. A majority (65.4% agreed and 16.0% strongly agreed) indicated that communication channels effectively keep stakeholders informed (Mean = 3.96, SD = 0.619).

This suggests that communication systems support coordination and information flow within the cooperative. However, a notable proportion (51.3% agreed and 15.7% strongly agreed) perceived that there is limited openness in information sharing (Mean = 3.80, SD = 0.753), indicating that transparency in communication remains a concern in the cooperatives.

The qualitative findings confirmed both strengths and gaps in communication practices.

One respondent noted:

*"… Communication structures exist, especially through meetings and cooperative channels, but not all information reaches farmers on time …"*

*(KII_1, Male, 09 March 2026)*

Another stated:

*"… There is information sharing, but sometimes it is selective, which affects trust among stakeholders. When communication is clear and timely, coordination improves and farmers are able to respond effectively …"*

*(KII_4, Female, 09 March 2026)*

From Stakeholder Theory and RBV perspective, effective communication is central to building trust, transparency, and coordination among stakeholders. Communication systems are valuable organizational capabilities that enhance coordination and efficient use of resources. Instead, weak communication limits the cooperative's ability to fully utilize stakeholder knowledge and inputs. The findings agree with Singh, Agrawal and Kumar (2025) that effective communication enhances coordination and improves performance in cooperative societies by strengthening trust and stakeholder commitment in agricultural value chains.

However, the findings contrast with Ochieng (2020) who found that communication alone has minimal impact on project outcomes unless supported by strong institutional structures. The results there imply that over-reliance on formal communication channels may not necessarily improve coordination in community-based projects.

### 4.7.2 Inclusivity

The findings indicate that respondents perceive inclusivity to be present but not fully achieved. A majority (53.8% agreed and 18.6% strongly agreed) indicated that stakeholders' opinions are valued (Mean = 3.81, SD = 0.859). However, 55.3% agreed and 15.7% strongly agreed that inclusivity is poorly practiced (Mean = 3.85, SD = 0.703), and 62.3% agreed that some stakeholders feel excluded from key discussions (Mean = 3.89, SD = 0.698).

Qualitative Findings (KII)

The qualitative findings revealed similar contradictions regarding inclusivity, that:

*"... Inclusivity depends on participation in meetings, and not all stakeholders are able to attend regularly. For example, the cooperative tries to involve farmers, but some groups still feel left out, especially those in remote areas ..."*

*(KII_2, Male, 09 March 2026)*

Another noted:

*"... When stakeholders are involved, they feel a sense of ownership and commitment to the project. But traditionally, some decisions are made at higher levels without adequate consultation with all stakeholders ..."*

*(KII_5, Male, 09 March 2026)*

The findings imply that inclusivity is critical for ensuring fairness, trust, and long-term commitment. Perceived exclusion reduces stakeholder ownership and weakens sustainability. As align with stakeholder theory, Stakeholders themselves are valuable resources, excluding them limits the cooperative's ability to leverage diverse knowledge, skills, and perspectives necessary for sustainability. The findings collaborated with Hansen et al. (2020) who emphasized inclusivity as a core principle of stakeholder management. Similarly, Wanjiku and Kibet (2022) found that inclusive practices improve project ownership and sustainability in cooperative organizations. Conversely, full inclusivity may slow decision-making and reduce efficiency (Mutiso, 2021). The study further established that selective participation can sometimes enhance efficiency in project implementation.

### 4.7.3 Partner Collaboration

The findings opined that collaboration among partners is perceived as beneficial but not consistently effective. A majority (58.2% agreed and 16.0% strongly agreed) indicated that joint activities strengthen teamwork (Mean = 3.88, SD = 0.702). However, a large proportion (57.9% agreed and 33.6% strongly agreed) indicated that collaboration is often weak, leading to duplication of efforts (Mean = 4.25, SD = 0.617). Further, 40.6% agreed and 20.1% strongly agreed that regular meetings enhance cooperation (Mean = 3.68, SD = 0.941), though the relatively higher standard deviation indicates varied experiences.

The qualitative findings reinforced the presence of both collaboration and coordination challenges.

One respondent stated:

*"… There are partnerships with different stakeholders, but coordination among them is sometimes weak …"*

*(KII_1, Male, 09 March 2026)*

Another explained:

*"... Some partners operate independently, which leads to duplication of activities and inefficiencies. When partners work together effectively, the outcomes are better and more sustainable ..."*

*(KII_3, Female, 09 March 2026)*

From Stakeholder Theory, collaboration among partners is essential for pooling resources, knowledge, and capabilities and partnerships enhance access to external resources and capabilities. Poor coordination leads to inefficiencies and underutilization of these resources. The findings agree with Karanja and Mutua (2023) who emphasized the importance of collaboration in enhancing competitive advantage and strong partnerships to improving resource sharing and sustainability in agricultural cooperatives. However, the findings contrast with Maryani and Gazali (2024) who argued that partnerships can sometimes create dependency and inefficiency, where poorly managed collaborations lead to conflicts and reduced performance.

### 4.8 Descriptive Statistics: Resource Mobilization

The third study objective was to examine the influence of resource mobilization on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County. Resource mobilization was measured with input access, financial access, and service support.

**Table 4.6: Respondents' Opinion on Resource Mobilization**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| Project inputs such as feeds and equipment are readily available when needed. | 8 (2.5%) | 11 (3.5%) | 47 (14.8%) | 149 (46.9 %) | 103 (32.4%) | 4.03 | .915 |
| Limited access to credit facilities often slows down the progress of project activities. | 7 (2.2%) | 32 (10.1%) | 56 (17.6%) | 157 (49.4 %) | 66 (20.8%) | 3.76 | .965 |
| The project effectively utilizes available resources to achieve its planned objectives. | 0 (0.0%) | 46 (14.5%) | 76 (23.9%) | 107 (33.6 %) | 89 (28.0%) | 3.75 | 1.019 |

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| Delays in acquiring essential inputs negatively affect productivity and timelines. | 10 (3.1%) | 38 (11.9%) | 67 (21.1%) | 144 (45.3 %) | 59 (18.6%) | 3.64 | 1.016 |
| Support services such as training and extension are easily accessible to project participants. | 2 (0.6%) | 40 (12.6%) | 79 (24.8%) | 132 (41.5 %) | 65 (20.4%) | 3.69 | .957 |
| Inadequate funding from partners or financial institutions hinders smooth project implementation. | 2 (0.6%) | 20 (6.3%) | 64 (20.1%) | 150 (47.2 %) | 82 (25.8%) | 3.91 | .873 |

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| Beneficiaries receive timely technical assistance that enhances project performance. | 0 (0.0%) | 16 (5.0%) | 64 (20.1%) | 145 (45.6 %) | 93 (29.2%) | 3.99 | .835 |
| The process of acquiring financial support is cumbersome and discourages participation. | 4 (1.3%) | 26 (8.2%) | 74 (23.3%) | 118 (37.1 %) | 96 (30.2%) | 3.87 | .980 |
| Resource allocation is guided by clear priorities that ensure efficient utilization. | 10 (3.1%) | 7 (2.2%) | 69 (21.7%) | 152 (47.8 %) | 80 (25.2%) | 3.90 | .912 |
| Aggregate Composite Scores | | | | | | 3.84 | .523 |

The findings show that respondents generally perceive resource mobilization to influence the sustainability of dairy projects (mean = 3.84; SD=0.523).

### 4.8.1 Input Access

The findings indicate that respondents generally perceive that project inputs are available, though with some challenges. A majority (46.9% agreed and 32.4% strongly agreed) indicated that inputs such as feeds and equipment are provided by cooperatives (Mean = 4.03, SD = 0.915). However, 45.3% agreed and 18.6% strongly agreed noted that delays in acquiring essential inputs negatively affect productivity (Mean = 3.64, SD = 1.016). The qualitative findings further indicated that while input supply systems exist and have improved, inconsistencies and delays in accessing inputs still disrupt production cycles and affect productivity outcomes.

*"... Inputs are available through the cooperative, but sometimes delays occur especially during peak demand periods ..."*

*(KII_1, Male, 09 March 2026)*

Another stated:

*"... We do get feeds and other inputs, but not always when needed, which affects planning and production cycles ..."*

*(KII_5, Male, 09 March 2026)*

Another expanded that:

*"... Availability has improved compared to the past, but inconsistency in supply still affects farmers differently ..."*

*(KII_4, Female, 09 March 2026)*

As explained within RBV theory, the findings implied that timely access to inputs is critical for efficient resource utilization and its consistent provision strengthens stakeholder trust and participation. The findings agree with Kiplagat et al. (2022), who found that timely access to agricultural inputs significantly improves dairy productivity. However, dependence on external inputs may undermine sustainability if local capacity is not developed (Lah, 2025).

### 4.8.2 Financial Access

The findings indicate that respondents perceive financial access as a major constraint. A majority (49.4% agreed and 20.8% strongly agreed) indicated that limited access to credit slows project progress (Mean = 3.76, SD = 0.965), while 47.2% agreed and 25.8% strongly agreed indicated that inadequate funding hinders implementation (Mean = 3.91, SD = 0.873).

The qualitative findings agreed with statistical results that accessing financial resources is difficult, slow, and sometimes discouraging, which limits farmers' ability to invest in and expand dairy activities. One respondent noted:

*"... Accessing credit is not easy; the process is long and discouraging especially for small-scale farmers ..."*

*(KII_3, Female, 09 March 2026)*

Another opined:

*"... Even when funding exists, the requirements are too strict for many farmers to qualify. In facts financial constraints remain one of the biggest barriers to improving my dairy* production ..."

*(KII_5, Male, 09 March 2026)*

Therefore, financial capital is a key strategic resource necessary for sustaining operations and growth. The findings align with Ouma and Wanyama (2022), who found that access to credit

significantly enhances agricultural productivity and sustainability because financial access supports adoption of improved dairy technologies. However, financial access alone does not guarantee sustainability without proper management and reliance on external funding may create dependency and weaken long-term resilience.

### 4.8.3 Service Support

The findings indicate that respondents perceive service support as available but unevenly accessible in the cooperative. A majority (41.5% agreed and 20.4% strongly agreed) indicated that support services are accessible (Mean = 3.69, SD = 0.957), while 45.6% agreed and 29.2% strongly agreed indicated that beneficiaries receive timely technical assistance (Mean = 3.99, SD = 0.835).

The qualitative findings agreed that training, extension, and technical support services are available but not consistently accessible to all farmers.

One respondent stated:

*"... Extension officers do visit, but not all farmers receive equal access to training and support ..."*

*(KII_2, Male, 09 March 2026)*

Another explained:

*"... Technical support is helpful when available, but it is not consistent across all members ..."*

*(KII_4, Female, 09 March 2026)*

Another added:

*"... Some farmers benefit more than others depending on their engagement and location ..."*

*(KII_5, Male, 09 March 2026)*

As proposed in the RBV, training and technical support are critical intangible resources that enhance capacity and productivity. Thus, service providers play a key role in strengthening stakeholder engagement and project outcomes. The findings agree with Ogola, Ngesa and Makanji (2023), that extension services significantly improve dairy productivity through adoption of best practices. However, generic service provision may not significantly influence outcomes if not tailored to local needs.

### 4.9 Descriptive Statistics: Monitoring and Evaluation

The fourth study objective was to determine the influence of monitoring and evaluation on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County. Monitoring and evaluation were assessed through feedback mechanisms, performance tracking, and reporting practices.

**Table 4.7: Respondents' Opinion on Monitoring & Evaluation**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| Regular feedback from project stakeholders helps improve implementation outcomes. | 3 (1.0%) | 8 (2.5%) | 53 (16.8%) | 177 (56.2 %) | 74 (23.5%) | 3.99 | .770 |
| Performance tracking is inconsistent, making it difficult to measure progress effectively. | 4 (1.3%) | 9 (2.9%) | 118 (37.5%) | 125 (39.7 %) | 59 (18.7%) | 3.72 | .844 |
| Reports generated from monitoring activities are used to inform future planning decisions. | 3 (1.0%) | 16 (5.1%) | 64 (20.3%) | 152 (48.3 %) | 80 (25.4%) | 3.92 | .861 |
| Feedback mechanisms are weak and rarely lead to corrective actions. | 6 (1.9%) | 7 (2.2%) | 83 (26.3%) | 156 (49.5 %) | 63 (20.0%) | 3.83 | .836 |
| Project progress is systematically tracked against predefined performance indicators. | 0 (0.0%) | 2 (0.6%) | 53 (16.8%) | 187 (59.4 %) | 73 (23.2%) | 4.05 | .651 |
| Reporting processes are often delayed, reducing their usefulness for timely decision-making. | 7 (2.2%) | 31 (9.8%) | 93 (29.5%) | 135 (42.9 %) | 49 (15.6%) | 3.60 | .941 |
| The monitoring system provides reliable data that supports accountability and learning. | 7 (2.2%) | 5 (1.6%) | 88 (27.9%) | 163 (51.7 %) | 52 (16.5%) | 3.79 | .815 |
| Limited follow-up on reported issues prevents continuous improvement in project delivery. | 2 (0.6%) | 13 (4.1%) | 86 (27.3%) | 156 (49.5 %) | 58 (18.4%) | 3.81 | .803 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Evaluation findings are shared openly with relevant stakeholders to enhance transparency. | 3 (1.0%) | 1 (0.3%) | 52 (16.5%) | 173 (54.9 %) | 86 (27.3%) | 4.07 | .730 |
| Monitoring activities are treated as a formality rather than a tool for performance improvement. | 9 (2.9%) | 11 (3.5%) | 50 (15.9%) | 155 (49.2 %) | 90 (28.6%) | 3.97 | .918 |
| Aggregate Composite Scores | | | | | | 3.87 | .480 |

The findings show that respondents generally perceive monitoring and evaluation to influence the sustainability of dairy projects, as reflected by an aggregate composite mean of 3.87 and a standard deviation of 0.480. This indicates a moderately high level of agreement with relatively low variability, suggesting that respondents share fairly consistent perceptions regarding the role of monitoring and evaluation in enhancing accountability, learning, and project improvement.

### 4.9.1 Feedback Mechanisms

The findings indicate that respondents generally perceive feedback systems as important for improving implementation outcomes, though with some weaknesses in effectiveness. A majority (56.2% agreed and 23.5% strongly agreed) indicated that regular feedback improves implementation outcomes (Mean = 3.99, SD = 0.770). However, 49.5% agreed and 20.0% strongly agreed also indicated that feedback mechanisms are weak and rarely lead to corrective actions (Mean = 3.83, SD = 0.836).

The qualitative findings reinforced that feedback is collected within the cooperative, but it is not always effectively acted upon to drive corrective improvements in project implementation.

One respondent noted:

*"… We usually give feedback during meetings, but sometimes you realize nothing changes even after raising concerns …"*

*(KII_1, Male, 09 March 2026)*

Another stated:

*"… Feedback is collected, but follow-up actions are not always taken seriously, so some issues keep recurring …"*

*(KII_2, Male, 09 March 2026)*

Another added:

*"… Farmers are allowed to speak, but implementation of their suggestions is slow, which reduces confidence in the system …"*

*(KII_4, Female, 09 March 2026)*

From the Stakeholder Theory, effective feedback mechanisms enhance participation, responsiveness, and trust among stakeholders. In regard to the Resource-Based View (RBV), feedback represents an important knowledge resource that improves decision-making and strengthens organizational learning. The findings agree with Kiptoo et al. (2023), that effective feedback systems enhance responsiveness and service delivery in dairy development projects. However, the findings contrast with Azizah and Aprylasari (2025), who argued that feedback systems in many rural cooperatives are often informal and have minimal influence on actual decision-making.

### 4.9.2 Performance Tracking

The findings indicate that respondents perceive performance tracking as generally present but not fully consistent. Majority of the respondents (82.6%) agreed that project progress is systematically tracked against performance indicators (Mean = 4.05, SD = 0.651).

However, 39.7% agreed and 18.7% strongly agreed also noted that performance tracking is inconsistent (Mean = 3.72, SD = 0.844).

Key informants observed that performance tracking systems exist and are useful, but inconsistencies in implementation limit their effectiveness in guiding timely decision-making.

One respondent stated:

*"… We have indicators, but tracking is not always done regularly or consistently …"*

*(KII_5, Male, 09 March 2026)*

Another noted:

*"… Sometimes performance is monitored, but follow-up depends on management priorities rather than a fixed system …"*

*(KII_1, Male, 09 March 2026)*

Another explained (KII_3, Female, *09 March* 2026):

*"… Not all farmers receive clear updates on performance results, which makes it hard to know whether targets are being achieved …"*

The results implied that performance tracking systems represent a critical capability for monitoring resource utilization and improving efficiency. Consistent tracking enhances accountability and strengthens stakeholder confidence in project management. The findings agree with Wanjiru and Karanja (2022), who found that systematic performance tracking improves efficiency and sustainability in cooperative projects while Mwangi et al. (2023) reported that monitoring indicators enhance project accountability and productivity in agricultural initiatives. In contrast, performance tracking systems in many cooperatives are often poorly implemented and have limited influence on outcomes (Jumawan, 2022). Similarly,

Rekha et al. (2024) found that tracking systems may not improve performance when data is not actively used for decision-making.

### 4.9.3 Reporting Practices

The respondents perceive reporting practices as useful but sometimes delayed. A majority (48.3% agreed and 25.4% strongly agreed) indicated that monitoring reports are used to inform planning decisions (Mean = 3.92, SD = 0.861). However, 42.9% agreed and 15.6% strongly agreed indicated that reporting processes are often delayed (Mean = 3.60, SD = 0.941), reducing their usefulness. Further, 54.9% agreed and 27.3% strongly agreed indicated that evaluation findings are shared openly with stakeholders (Mean = 4.07, SD = 0.730), suggesting moderate transparency in reporting practices.

The qualitative findings support quantitative results that reports and evaluation findings are generated and shared, but delays in reporting sometimes reduce their usefulness for timely decision-making and corrective action.

KII_2, Male stated that:

*"... Reports are prepared, but sometimes they reach us late, so decisions are delayed ..."*

*Another explained:*

Another added:

*"... Evaluation findings are shared, but not always in a way that all farmers fully understand or receive on time ..."*

*(KII_4, Female, 09 March 2026)*

From the Stakeholder Theory and RBV theory, transparent reporting strengthens accountability, trust, and stakeholder engagement while reporting systems provide valuable information resources that enhance strategic decision-making and learning. The findings agree

with Tumpa and Naeni (2025) that timely reporting improves accountability and decision-making in agricultural projects. But, reporting systems in many dairy cooperatives are often bureaucratic and have limited practical influence on decision-making and sustainability.

### 4.10 Descriptive Statistics: Institutional Leadership Culture

The fifth construct examined the moderating effect of institutional leadership culture in the relationship between multi-stakeholder practices and sustainability of Githunguri Dairy Farmers' Cooperative Society, focusing on mutual trust, transparency and accountability, and relationship building.

**Table 4.8: Respondents' Opinion on Leadership Culture**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| Leadership fosters an atmosphere of mutual trust that encourages open communication among team members. | 10 (3.1%) | 7 (2.2%) | 69 (21.7%) | 152 (47.8%) | 80 (25.2%) | 3.90 | .912 |
| There is limited confidence in leadership decisions due to inconsistent communication and follow-up. | 7 (2.2%) | 5 (1.6%) | 22 (6.9%) | 204 (64.2%) | 80 (25.2%) | 4.08 | .759 |
| Project leaders demonstrate transparency when allocating resources and reporting progress. | 6 (1.9%) | 3 (0.9%) | 105 (33.0%) | 129 (40.6%) | 75 (23.6%) | 3.83 | .864 |
| Lack of accountability among senior managers weakens the overall credibility of leadership. | 4 (1.3%) | 17 (5.3%) | 91 (28.6%) | 129 (40.6%) | 77 (24.2%) | 3.81 | .907 |
| Leaders actively build positive relationships that promote teamwork | 3 (0.9%) | 3 (0.9%) | 101 (31.8%) | 154 (48.4%) | 57 (17.9%) | 3.81 | .766 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| and shared commitment. | | | | | | | |
| Interpersonal conflicts are often ignored, leading to strained relationships among staff. | 20 (6.3%) | 53 (16.7%) | 107 (33.6%) | 88 (27.7%) | 50 (15.7%) | 3.30 | 1.113 |
| Leadership practices are guided by honesty and fairness in handling project matters. | 6 (1.9%) | 15 (4.7%) | 118 (37.1%) | 129 (40.6%) | 50 (15.7%) | 3.64 | .870 |
| Decision-making processes are opaque, leaving many participants uncertain about how conclusions are reached. | 5 (1.6%) | 9 (2.8%) | 122 (38.4%) | 124 (39.0%) | 58 (18.2%) | 3.69 | .854 |
| Continuous engagement between leaders and members strengthens collaboration and morale. | 1 (0.3%) | 7 (2.2%) | 70 (22.0%) | 151 (47.5%) | 89 (28.0%) | 4.01 | .786 |
| Poor relationship management by leaders often results in low motivation and reduced performance. | 5 (1.6%) | 7 (2.2%) | 57 (17.9%) | 167 (52.5%) | 82 (25.8%) | 3.99 | .818 |
| Aggregate Composite Scores | | | | | | 3.81 | .580 |

The findings indicate that respondents generally perceive institutional leadership culture to influence the sustainability of dairy projects (mean = 3.81; SD = 0.580). This suggests that experiences of leadership practices differ across stakeholder groups within the cooperative.

### 4.10.1 Mutual Trust

The respondents commonly perceive the presence of mutual trust within leadership structures, though with some concerns. A majority (47.8% agreed and 25.2% strongly agreed) indicated that leadership fosters an atmosphere of mutual trust that encourages open communication (Mean = 3.90, SD = 0.912). However, a substantial proportion also expressed concerns, with 64.2% agreeing and 25.2% strongly agreeing that there is limited confidence in leadership decisions due to inconsistent communication and follow-up (Mean = 4.08, SD = 0.759).

The qualitative findings collaborated with statistical results that trust exists in leadership structures, but it is occasionally weakened by inconsistent communication, delayed feedback, and uneven follow-up on decisions.

One respondent noted:

*"... There is some level of trust in leadership, but at times communication is not clear and this creates uncertainty among members ..."*

*(KII_1, Male, 09 March 2026)*

Another stated:

*"... We trust leaders to some extent, but delays in feedback and decision follow-up reduce confidence ..."*

*(KII_3, Female, 09 March 2026)*

Similarly, another added:

*"... When leaders communicate consistently, trust improves, but inconsistency creates doubt among farmers ..."*

*(KII_5, Male, 09 March 2026)*

From Stakeholder Theory, mutual trust is essential for strengthening cooperation, legitimacy, and sustained stakeholder engagement. From the Resource-Based View (RBV), trust is an intangible organizational resource that enhances coordination and reduces transaction costs in project implementation. The findings married those of Kathayat (2024), who found that mutual trust in cooperative leadership enhances coordination and improves project sustainability; trust between leaders and members strengthens participation. However, trust alone is insufficient to guarantee improved performance without strong institutional systems or where accountability structures are weak.

### 4.10.2 Transparency and Accountability

The findings indicate moderate perceptions regarding transparency and accountability in leadership. A majority (40.6% agreed and 23.6% strongly agreed) indicated that leaders demonstrate transparency in resource allocation and reporting (Mean = 3.83, SD = 0.864). However, 40.6% agreed and 24.2% strongly agreed also indicated that lack of accountability among senior managers weakens leadership credibility (Mean = 3.81, SD = 0.907). Additionally, 39.0% agreed and 18.2% strongly agreed noted that decision-making processes are sometimes opaque (Mean = 3.69, SD = 0.854).

The qualitative findings mirrored the quantitative results that while some transparency mechanisms exist, inconsistencies in accountability and limited clarity in decision-making processes sometimes reduce confidence in leadership structures.

One respondent stated:

*"... Sometimes we are told decisions have been made, but the process is not very clear to all members ..."*

*(KII_2, Male, 09 March 2026)*

Another explained:

*"... There is some transparency, but accountability is not always consistent among leaders ..."*

*(KII_4, Female, 09 March 2026)*

Similarly, another noted:

*"... Leaders do report on activities, but not everything is fully transparent to all stakeholders ..."*

*(KII_1, Male, 09 March 2026)*

The findings indicated that transparency and accountability are fundamental for building legitimacy and sustaining stakeholder trust. From the RBV, transparent governance systems enhance efficient resource allocation and reduce mismanagement risks. The findings agree with Ngare and Moi (2024), who found that transparency in cooperative leadership improves accountability and project performance. However, when transparency mechanisms become symbolic limit impact on actual decision-making.

### 4.10.3 Relationship Building

The findings indicate that respondents generally perceive relationship building as present within leadership practices, though with some weaknesses. A majority (48.4% agreed and 17.9% strongly agreed) indicated that leaders actively build positive relationships that promote teamwork (Mean = 3.81, SD = 0.766).

Additionally, 47.5% agreed and 28.0% strongly agreed indicated that continuous engagement between leaders and members strengthens collaboration and morale (Mean = 4.01, SD = 0.786). However, 27.7% agreed and 15.7% strongly agreed noted that interpersonal conflicts are often ignored (Mean = 3.30, SD = 1.113), suggesting gaps in conflict management.

Qualitative Findings (KII)

The qualitative findings strongly reinforced these perceptions, indicating that respondents generally felt that leadership efforts to build relationships improve teamwork and morale, but unresolved conflicts and inconsistent engagement sometimes weaken cohesion among stakeholders.

*"... Leaders try to maintain good relationships, and this improves teamwork among members ..."*

*(KII_3, Female, 09 March 2026)*

Another stated:

*"... When leaders engage with members regularly, morale improves and people feel more involved ..."*

*(KII_5, Male, 09 March 2026)*

However, another disagreed:

*"... Some conflicts are not properly addressed, and this affects unity among members ..."*

*(KII_2, Male, 09 March 2026)*

Therefore, the findings indicated that strong relationship building enhances collaboration, trust, and shared commitment among stakeholders. From the Stakeholder Theory and the RBV, relational capital is a valuable intangible resource that improves coordination and organizational effectiveness.

The findings agree with Karanja and Mutiso (2023), who found that strong leadership relationships improve teamwork and sustainability in cooperative organizations. Conversely, the findings contrast with Handoyo and Anas (2024), who argued that relationship building alone does not guarantee improved performance without strong formal governance structures. Similarly, informal relationships may sometimes lead to favoritism and reduced accountability in cooperative systems.

### 4.11 Descriptive Statistics: Sustainability of Dairy Projects

The dependent variable was sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society, Kiambu County. Sustainability was measured through three dimensions: productivity stability, profitability level, and environmental management.

**Table 4.9: Respondents' Opinion on Sustainability of Dairy Projects**

| Statement | Strongly Disagree | Disagree | Moderate | Agree | Strongly Agree | Mean | SD |
|---|---|---|---|---|---|---|---|
| The project maintains consistent levels of milk production throughout the year. | 5 (1.6%) | 2 (0.6%) | 79 (24.8%) | 165 (51.9%) | 67 (21.1%) | 3.90 | .786 |
| Frequent fluctuations in productivity make it difficult to achieve long-term stability. | 0 (0.0%) | 4 (1.3%) | 25 (7.9%) | 204 (64.2%) | 85 (26.7%) | 4.16 | .609 |
| The project generates sufficient income to cover operational costs and support future growth. | 2 (0.6%) | 4 (1.3%) | 120 (37.7%) | 135 (42.5%) | 57 (17.9%) | 3.76 | .779 |
| Profit margins have been declining, making continued operation increasingly challenging. | 3 (0.9%) | 17 (5.3%) | 50 (15.7%) | 169 (53.1%) | 79 (24.8%) | 3.96 | .839 |
| The project adopts environmentally responsible practices that promote long-term resource conservation. | 3 (0.9%) | 0 (0.0%) | 106 (33.3%) | 162 (50.9%) | 47 (14.8%) | 3.79 | .722 |
| Poor waste management practices have negatively affected the surrounding environment. | 4 (1.3%) | 4 (1.3%) | 104 (32.7%) | 162 (50.9%) | 44 (13.8%) | 3.75 | .753 |
| Stable production levels have contributed to improved market reliability and customer confidence. | 2 (0.6%) | 50 (15.7%) | 90 (28.3%) | 136 (42.8%) | 40 (12.6%) | 3.51 | .925 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The current profitability levels are too low to sustain the project without external support. | 0 (0.0%) | 22 (6.9%) | 96 (30.2%) | 161 (50.6%) | 39 (12.3%) | 3.68 | .776 |
| Efforts are made to minimize environmental degradation through efficient use of resources. | 4 (1.3%) | 2 (0.6%) | 73 (23.0%) | 151 (47.5%) | 88 (27.7%) | 4.00 | .804 |
| The project's output and returns fluctuate significantly due to inconsistent management practices. | 6 (1.9%) | 15 (4.7%) | 105 (33.0%) | 168 (52.8%) | 24 (7.5%) | 3.59 | .776 |
| Aggregate Composite Scores | | | | | | 3.81 | .428 |

The majority of the respondents generally perceive the dairy projects to have moderate levels of sustainability, as reflected by an aggregate composite mean of 3.81 and a standard deviation of 0.428.

### 4.11.1 Productivity Stability

The findings indicate that respondents generally perceive production stability to exist, although with notable fluctuations. A majority (51.9% agreed and 21.1% strongly agreed) indicated that the project maintains consistent milk production throughout the year (Mean = 3.90, SD = 0.786). However, a very strong perception of instability was also recorded, where 64.2% agreed and 26.7% strongly agreed that frequent fluctuations in productivity make long-term stability difficult (Mean = 4.16, SD = 0.609).

The qualitative findings agreed to quantitative findings that milk production is relatively stable under normal conditions, but seasonal changes, input constraints, and management inconsistencies sometimes lead to noticeable fluctuations in output levels.

One respondent noted:

*"... Milk production is fairly stable in some seasons, but it fluctuates depending on feed availability and weather conditions ..."*

*(KII_1, Male, 09 March 2026)*

Another stated:

*"... There are times production is good, but inconsistencies in inputs and costs affect stability throughout the year ..."*

*(KII_2, Male, 09 March 2026)*

Similarly, another explained:

*"... We try to maintain stable production, but external factors like feed prices and diseases cause fluctuations ..."*

*(KII_5, Male, 09 March 2026)*

From the RBV, productivity stability depends on efficient utilization of key resources such as feed, labor, and technology. Inconsistencies in these resources lead to fluctuating outputs. Additionally, stable production strengthens trust among stakeholders, while fluctuations may reduce confidence in the cooperative's performance. The findings agree with Rukenya and Kibas (2026), who found that consistent resource availability improves production stability in dairy cooperatives. However, production fluctuations are a normal feature of dairy systems, which can sometimes be offset by strong market systems and adaptive management and do not necessarily undermine sustainability.

### 4.11.2 Profitability Level

The respondents perceive profitability to be moderate but under pressure. A majority (42.5% agreed and 17.9% strongly agreed) indicated that the project generates sufficient income to cover operational costs (Mean = 3.76, SD = 0.779). However, 53.1% agreed and 24.8% strongly agreed also indicated that profit margins have been declining, making operations more challenging (Mean = 3.96, SD = 0.839). Additionally, 50.6% agreed and 12.3% strongly agreed indicated that current profitability is too low to sustain the project without external support (Mean = 3.68, SD = 0.776).

Qualitative Findings (KII)

The key informants generally felt that while dairy projects remain operationally viable, profitability is increasingly constrained by rising input costs, market fluctuations, and dependency on external support systems.

One respondent noted:

*"... The project makes some profit, but rising costs of feeds and inputs reduce the margins ..."*

*(KII_3, Female, 09 March 2026)*

Another stated:

*"... Income is there, but it is not stable enough to support expansion without external support ..."*

*(KII_4, Female, 09 March 2026)*

Similarly, another added:

*"... Profitability has been affected by fluctuating market prices and high production costs ..."*

*(KII_2, Male, 09 March 2026)*

The results imply that profitability depends on efficient resource allocation and cost management. Weak resource optimization reduces returns. Which determine stakeholder satisfaction and continued engagement in the project. The findings agree with Kapende (2024), who found that dairy cooperatives experience profitability challenges due to rising input costs and market volatility. However, Kashyap and Bhuyan (2023) argued that dairy cooperatives can remain highly profitable when supported by strong market linkages and value addition; profitability in dairy projects is more stable in well-integrated value chains.

### 4.11.3 Environmental Management

The respondents perceive environmental management practices moderately shapes the sustainability of daily projects. A majority (50.9% agreed and 14.8% strongly agreed) indicated that the project adopts environmentally responsible practices (Mean = 3.79, SD = 0.722). Additionally, 47.5% agreed and 27.7% strongly agreed indicated that efforts are made to minimize environmental degradation (Mean = 4.00, SD = 0.804). However, 50.9% agreed and 13.8% strongly agreed also indicated that poor waste management has negatively affected the environment (Mean = 3.75, SD = 0.753).

The qualitative findings confirmed these mixed perceptions that environmental conservation practices are being adopted, but challenges such as waste disposal and manure management still require improvement for full sustainability.

One respondent stated:

*"... Some farmers try to manage waste properly, but others are not consistent in environmental practices ...*

*(KII_1, Male, 09 March 2026)*

Another explained:

*"... Environmental practices are improving, but waste management remains a challenge in some farms ..."*

*(KII_5, Male, 09 March 2026)*

Similarly, another noted:

*"... There is awareness about environmental protection, but implementation is not uniform across members ..."*

*(KII_4, Female, 09 March 2026)*

The findings suggest that environmental management reflects responsible utilization of natural resources to ensure long-term productivity and influence community relations and the social legitimacy of dairy projects. The findings agree with Shamsuddoha and Nasir (2024), who found that sustainable environmental practices improve long-term viability of dairy farming systems because efficient waste management enhances environmental sustainability and community acceptance. However, environmental practices in many dairy cooperatives remain weak and largely compliance-drive, limiting influence on profitability unless integrated with production systems.

### 4.12 Correlation analysis

Bivariate Pearson product–moment correlation analysis was conducted to determine the strength, direction, and significance of the relationships between the independent variables (strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation) and the dependent variable (sustainability of dairy projects). The results are presented in Table 4.10.

**Table 4.10: Correlation Analysis**

| Variable | | Y | X1 | X2 | X3 | X4 |
|---|---|---|---|---|---|---|
| Y | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| | N | 318 | | | | |
| X1 | Pearson Correlation | .603** | 1 | | | |
| | Sig. (2-tailed) | .000 | | | | |
| | N | 318 | 318 | | | |
| X2 | Pearson Correlation | .768** | .724** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | | | |
| | N | 318 | 318 | 318 | | |
| X3 | Pearson Correlation | .214** | .262** | .107 | 1 | -.022 |
| | Sig. (2-tailed) | .000 | .000 | .058 | | .697 |
| | N | 318 | 318 | 318 | 318 | 318 |
| X4 | Pearson Correlation | .287** | .225** | .273** | -.022 | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .697 | |
| | N | 318 | 318 | 318 | 318 | 318 |

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

*Y= Sustainability; X1= Strategic Planning; X2= Stakeholder Engagement; Resource Mobilization; X4=Monitoring & Evaluation*

The correlation results indicate that all the independent variables are positively and significantly associated with sustainability of dairy projects. This suggests that sustainability of dairy projects is a multidimensional outcome shaped by the interaction of planning, engagement, resource utilization, and evaluation practices within the cooperative.

Specifically, strategic planning showed a strong positive and statistically significant relationship with sustainability ($r = 0.603$, $p < 0.01$). This implies that clearer goals, inclusive decision-making, and alignment between vision and activities are associated with improved sustainability outcomes. In practical terms, when stakeholders perceive planning processes as structured and participatory, project implementation becomes more coordinated, leading to more stable sustainable dairy projects.

Stakeholder engagement demonstrated a very strong positive and statistically significant relationship with sustainability ($r = 0.768$, $p < 0.01$). This indicates that effective communication, inclusivity, and collaboration among stakeholders are strongly associated with sustainable dairy project outcomes. In practice, well-engaged stakeholders are more likely to share information, coordinate activities, and take collective responsibility, which enhances long-term project performance.

Resource mobilization shows a weak but statistically significant positive relationship with sustainability ($r = 0.214$, $p < 0.01$). This implies that while access to inputs, finances, and support services contributes to sustainability, its influence is relatively modest. This suggest that the mere availability of resources is not sufficient; rather, how these resources are accessed, distributed, and utilized determines their effectiveness in enhancing sustainability.

Monitoring and evaluation indicate a weak but statistically significant positive relationship with sustainability ($r = 0.287$, $p < 0.01$). This suggests that feedback mechanisms, performance tracking, and reporting practices contribute to sustainability, though their influence is moderate.

In practice, consistent monitoring systems help identify gaps, support learning, and improve decision-making, thereby enhancing project outcomes over time.

Grounded in Stakeholder Theory, the strong relationship between stakeholder engagement and sustainability highlights the importance of inclusive participation, collaboration, and shared responsibility in achieving sustainable outcomes. From the Resource-Based View (RBV), the findings suggest that while resources are important, their strategic coordination through planning, engagement, and monitoring processes is what ultimately drives sustainability.

### 4.13 Multiple regression Analysis Results

Multiple regression analysis was conducted to determine the extent to which multi-stakeholder practices predict the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society. The analysis further examined the explanatory power of the model and the relative contribution of each predictor. The results of the model summary are presented in Table 4.11.

**Table 4.11: Model Summary**

| | | | | | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .785[a] | .616 | .611 | 4.896 | .616 | 124.121 | 4 | 310 | .000 |
| 2 | .842[b] | .709 | .704 | 4.267 | .093 | 99.136 | 1 | 309 | .000 |

a. Predictors: (Constant), Monitoring Evaluation, Resource Mobilization, Stakeholder Engagement, Strategic Planning

b. Predictors: (Constant), Monitoring Evaluation, Resource Mobilization, Stakeholder Engagement, Strategic Planning, Leadership Culture

c. Dependent Variable: Sustainability of dairy projects

Model 1 compromising of strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation provided a strong correlation sustainability of dairy projects (R = 0.785). furthermore, the model explained 61.6% of the variation in sustainability ($R^2$ = 0.616), while the adjusted $R^2$ of 0.611 indicates that the model remains strong even after adjusting for the number of predictors. This implies that the four variables collectively make a substantial contribution to explaining differences in sustainability outcomes. The model was statistically significant ($F(4, 310) = 124.121$, $p < 0.001$), confirming that the predictors jointly provide a meaningful explanation of sustainability of dairy projects.

In Model 2, institutional leadership culture was introduced into model 1 to assess its additional explanatory contribution. The inclusion of leadership culture improved the model fit, increasing the correlation coefficient to R = 0.842. The model explained 70.9% of the variance in sustainability ($R^2$ = 0.709), with an adjusted $R^2$ of 0.704. This indicates that institutional leadership culture contributed an additional 9.3% explanatory power ($\Delta R^2$ = 0.093). The change in $R^2$ was statistically significant (F Change = 99.136, $p < 0.001$), confirming that leadership culture significantly enhances the prediction of sustainability beyond the other four variables. The reduction in the standard error of estimate from 4.896 to 4.267 further indicates improved model accuracy.

### 4.13.1 Analysis of Variance

The ANOVA was conducted as part of multiple regression analysis to test the overall significance and goodness of fit of the regression models.

**Table 4.12: Analysis of Variance**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 11899.027 | 4 | 2974.757 | 124.121 | .000[b] |
| | Residual | 7429.625 | 310 | 23.967 | | |
| | Total | 19328.652 | 314 | | | |
| 2 | Regression | 13703.677 | 5 | 2740.735 | 150.558 | .000[c] |
| | Residual | 5624.976 | 309 | 18.204 | | |
| | Total | 19328.652 | 314 | | | |

a. Dependent Variable: Sustainability of dairy projects

b. Predictors: (Constant), Monitoring Evaluation, Resource Mobilization, Stakeholder Engagement, Strategic Planning,

c. Predictors: (Constant), Monitoring Evaluation, Resource Mobilization, Stakeholder Engagement, Strategic Planning, Leadership Culture

The results in Model 1 show that the regression model was statistically significant ($F(4, 310) = 124.121$, $p < 0.001$). This indicates that strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation collectively have a significant effect on the sustainability of dairy projects. The regression sum of squares (11899.027) is substantially higher than the residual sum of squares (7429.625), indicating that a large proportion of variation in sustainability is explained by the model.

For Model 2, after introducing institutional leadership culture, the model remained statistically significant and improved in explanatory power ($F(5, 309) = 150.558$, $p < 0.001$). The increase in the regression sums of squares (13703.677) and the corresponding reduction in residual sum of squares (5624.976) indicate that the second model provides a better fit to the data compared to Model 1. This further confirms that institutional leadership culture significantly enhances the predictive strength of the model, leading to a more robust explanation of sustainability of dairy projects.

### 4.13.2 Regression Unstandardized Coefficients

The unstandardized coefficients analysis was conducted to examine the predicted change in the sustainability of dairy projects for a one-unit increase in each predictor, holding all other variables constant. This analysis provides a practical understanding of how changes in multi-stakeholder practices influence sustainability outcomes and whether these predictions are statistically significant. The results are presented in Table 4.13.

**Table 4.13: Regression Weights**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | **B** | **Std. Error** | **Beta** | **t** | **Sig.** |
| 1 | (Constant) | 13.086 | 3.522 | | 3.715 | .000 |
| | Strategic Planning | .087 | .109 | .043 | .801 | .424 |
| | Stakeholder Engagement | .954 | .071 | .699 | 13.420 | .000 |
| | Resource Mobilization | .217 | .061 | .130 | 3.525 | .000 |
| | Monitoring Evaluation | .147 | .060 | .090 | 2.445 | .015 |
| 2 | (Constant) | 7.714 | 3.117 | | 2.475 | .014 |
| | Strategic Planning | .245 | .096 | .119 | 2.544 | .011 |
| | Stakeholder Engagement | .677 | .068 | .496 | 9.969 | .000 |
| | Resource Mobilization | .110 | .055 | .066 | 2.011 | .045 |
| | Monitoring Evaluation | .130 | .052 | .079 | 2.482 | .014 |
| | Leadership Culture | .432 | .043 | .351 | 9.957 | .000 |

a. Dependent Variable: Sustainability of dairy projects

Constant (B = 7.714, p = 0.014)

The constant represents the predicted level of sustainability of dairy projects when all independent variables are zero. Sustainability is predicted to be 7.714 units when all predictors are held at zero. The intercept is statistically significant ($p < 0.05$), indicating that the baseline level of sustainability differs significantly from zero.

Strategic Planning (B = 0.245, p = 0.011)

For every one-unit increase in strategic planning, sustainability of dairy projects is predicted to increase by 0.245 units, holding all other variables constant. The increase is statistically significant ($p < 0.05$), indicating that improvements in goal clarity, participatory decision-making, and vision alignment contribute positively to sustainability outcomes.

Stakeholder Engagement (B = 0.677, p < 0.001)

For every one-unit increase in stakeholder engagement, sustainability of dairy projects is predicted to increase by 0.677 units, holding all other variables constant. The increase is highly statistically significant ($p < 0.001$), indicating that effective communication, inclusivity, and collaboration among stakeholders strongly enhance sustainability.

Resource Mobilization (B = 0.110, p = 0.045)

For every one-unit increase in resource mobilization, sustainability of dairy projects is predicted to increase by 0.110 units, holding all other variables constant. The increase is statistically significant ($p < 0.05$), though relatively modest. This implies that access to inputs, finances, and support services contributes to sustainability.

Monitoring and Evaluation (B = 0.130, p = 0.014)

For every one-unit increase in monitoring and evaluation, sustainability of dairy projects is predicted to increase by 0.130 units, holding all other variables constant. The increase is statistically significant ($p < 0.05$), suggesting that effective feedback mechanisms, performance tracking, and reporting practices support improved sustainability outcomes.

Leadership Culture (B = 0.432, $p < 0.001$)

For every one-unit increase in institutional leadership culture, the sustainability of dairy projects is predicted to increase by 0.432 units, holding all other variables constant. The increase is highly statistically significant ($p < 0.001$), indicating that leadership practices such as mutual trust, transparency, accountability, and relationship building play a major role in enhancing sustainability. This suggests that leadership culture strengthens coordination, stakeholder confidence, and overall project performance.

### 4.13.3 Predictive Ability of Independent Variables

The standardized beta coefficients indicate the relative strength of each predictor in influencing sustainability of dairy projects. The analysis shows that stakeholder engagement ($\beta = 0.496$, $p < 0.001$) is the most influential predictor of sustainability. This implies that effective communication, inclusivity, and collaboration among stakeholders have the strongest direct effect on sustainability outcomes. It suggests that active involvement of stakeholders is a critical driver of long-term productivity, profitability, and environmental management.

Additionally, leadership culture ($\beta = 0.351$, $p < 0.001$) demonstrates a strong positive influence. This implies that trust, transparency, accountability, and relationship building significantly enhance coordination and strengthen the effectiveness of other project practices. Leadership culture therefore acts as a critical enabling factor that supports sustainability.

Strategic planning ($\beta = 0.119$, $p < 0.05$) also shows a positive and statistically significant effect. This suggests that clear goals, participatory decision-making, and alignment between vision and implementation contribute to sustainability, though its influence is moderate.

Monitoring and evaluation ($\beta = 0.079$, $p < 0.05$) and resource mobilization ($\beta = 0.066$, $p < 0.05$) exhibit positive but relatively weaker effects. This implies that while feedback systems, performance tracking, resource access, and support services are important, their direct contribution to sustainability is modest. Therefore, these variables primarily play a supportive role in enhancing sustainability outcomes.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

The chapter presents a summary of the study findings, draws conclusions based on the study objectives, and provides recommendations for practice, policy, and theory. The study investigated the influence of multi-stakeholder practices on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society. The findings are synthesized to explain how multi-stakeholder factors influence the long-term performance, resilience, and effectiveness of dairy development initiatives. The chapter further presents key conclusions derived from the empirical findings and provides recommendations aimed at improving the implementation of multi-stakeholder approaches in cooperative dairy development. Finally, it identifies areas for future research to enhance understanding of sustainability dynamics in dairy cooperative systems and similar agricultural value chains.

## 5.2 Summary of Study Findings

### 5.2.1 Model Summary

The study found that multi-stakeholder practices (model1) provide strong predictive power for the sustainability of dairy projects, explaining 61.6% of its variance ($R^2 = 0.616$; Adjusted $R^2 = 0.611$). The ANOVA results showed that Model 1 significantly predicted sustainability ($F(4, 310) = 124.121$, $p < 0.001$). When institutional leadership culture was introduced (Model 2), the explained variance increased to 70.9% ($R^2 = 0.709$; Adjusted $R^2 = 0.704$). The ANOVA confirmed that Model 2 significantly predicted sustainability of dairy projects ($F(5, 309) = 150.558$, $p < 0.001$), with the additional variable accounting for an increase of 9.3% in explained variance ($\Delta R^2 = 0.093$). This indicates that leadership culture significantly enhances the predictive strength of multi-stakeholder practices on sustainability outcomes.

Moreover, the regression coefficients revealed that all predictors had a positive and statistically significant influence on sustainability. Stakeholder engagement emerged as the strongest predictor ($\beta = 0.496$, $p < 0.001$), followed by leadership culture ($\beta = 0.351$, $p < 0.001$), indicating that collaborative involvement and strong institutional leadership play a central role in enhancing sustainability. Strategic planning ($\beta = 0.119$, $p < 0.05$) also showed a moderate positive effect, while monitoring and evaluation ($\beta = 0.079$, $p < 0.05$) and resource mobilization ($\beta = 0.066$, $p < 0.05$) had smaller but significant contributions.

The summary based on each study objectives are presented in the subsequent sections.

### 5.2.2 Strategic Planning

The results indicate that respondents generally agreed that strategic planning plays a significant role in enhancing sustainability, with relatively consistent responses across participants (composite mean score of 3.87; SD = 0.424). Regarding goal clarity, the findings show that most respondents agreed that project goals are well defined (Mean = 3.94), suggesting that strategic direction exists within the cooperative. However, inconsistencies were observed, as a significant proportion also indicated that strategic objectives are sometimes vague and not consistently linked to implementation. In terms of decision participation, the results reveal a mixed situation, where respondents agreed that team members actively participate in setting priorities (Mean = 3.96), while a considerable proportion also reported exclusion of key stakeholders in decision-making processes (Mean = 4.00). For vision alignment, respondents indicated moderate agreement that the project vision inspires commitment (Mean = 3.59), however a major gap was identified between long-term vision and short-term activities (Mean = 4.25), showing that implementation is not strongly guided by strategic direction and that day-to-day activities are not consistently linked to the cooperative's broader strategic goals.

Correlation results indicate that strategic planning showed a strong positive and statistically significant relationship with sustainability ($r = 0.603$, $p < 0.01$). Strategic planning ($\beta = 0.119$, $p < 0.05$) also shows a positive and statistically individual contribution effect on sustainability. This suggests that clear goals, participatory decision-making, and alignment between vision and implementation contribute to sustainability, though its influence is moderate.

### 5.2.3 Stakeholder Engagement

The study examined the effect of stakeholder engagement on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society using communication efficiency, inclusivity, and partner collaboration as key indicators. The overall composite mean of 3.89 (SD = 0.540) shows that respondents generally agreed stakeholder engagement influences sustainability, though experiences varied across stakeholders. For communication efficiency, respondents agreed that communication channels support coordination and information flow (Mean = 3.96), but noted limited openness in information sharing (Mean = 3.80), indicating inconsistent transparency. Regarding inclusivity, respondents agreed that stakeholders' opinions are considered (Mean = 3.81), but also indicated that inclusivity is not fully practiced, with some stakeholders feeling excluded from decision-making (Mean = 3.89). On partner collaboration, respondents acknowledged that joint activities enhance teamwork (Mean = 3.88), but also reported weak coordination leading to duplication of efforts (Mean = 4.25), while regular meetings were seen to support cooperation (Mean = 3.68), though responses showed variation in experiences.

Furthermore, correlation analysis showed that stakeholder engagement demonstrated a very strong positive and statistically significant relationship with sustainability ($r = 0.768$, $p < 0.01$). This indicates that effective communication, inclusivity, and collaboration among stakeholders are strongly associated with sustainable dairy project outcomes. The analysis also shows that stakeholder engagement ($\beta = 0.496$, $p < 0.001$) is the most influential predictor of sustainability.

### 5.2.4 Resource Mobilization

The study findings submitted that respondents generally agreed that resource mobilization influences sustainability, although challenges were noted across different resource dimensions (mean = 3.84; SD = 0.523). Regarding input access, respondents agreed that inputs such as feeds and equipment are generally available (Mean = 4.03), but also indicated that delays in acquiring essential inputs negatively affect productivity (Mean = 3.64), suggesting inconsistency in timely supply. In terms of financial access, respondents reported that limited access to credit slows project progress (Mean = 3.76) and that inadequate funding hinders implementation (Mean = 3.91), reflecting financial constraints as a major barrier to effective project execution. For service support, respondents agreed that support services are available (Mean = 3.69) and that beneficiaries receive technical assistance that enhances performance (Mean = 3.99), although access is not uniform across all farmers. Overall, the findings show that while resource mobilization systems exist within the cooperative, inefficiencies in input supply, financial access, and equitable service delivery limit their full contribution to the sustainability of dairy projects.

Resource mobilization shows a weak but statistically significant positive relationship with sustainability ($r = 0.214$, $p < 0.01$). Additionally, resource mobilization ($\beta = 0.066$, $p < 0.05$) exhibit positive but relatively weaker effects on the dependent variable. This implies that while access to inputs, finances, and support services contributes to sustainability, its influence is relatively modest. This suggest that the mere availability of resources is not sufficient; rather, how these resources are accessed, distributed, and utilized determines their effectiveness in enhancing sustainability.

### 5.2.5 Monitoring and Evaluation

The study findings indicate that respondents generally agreed that monitoring and evaluation influence sustainability, with relatively consistent perceptions across respondents (mean = 3.87; SD = 0.480). For feedback mechanisms, respondents agreed that regular feedback improves implementation outcomes (Mean = 3.99), although they also indicated that feedback systems are weak and rarely lead to corrective action (Mean = 3.83), suggesting gaps in responsiveness. In terms of performance tracking, respondents agreed that project progress is systematically tracked against indicators (Mean = 4.05), but also noted inconsistencies in implementation (Mean = 3.72), limiting effectiveness in guiding decision-making. Regarding reporting practices, respondents indicated that monitoring reports are used in planning decisions (Mean = 3.92) and that evaluation findings are shared openly (Mean = 4.07), though reporting delays were also reported (Mean = 3.60), reducing their usefulness for timely action. Overall, the findings show that while monitoring and evaluation systems exist and are generally perceived positively, weaknesses in feedback responsiveness, consistency of performance tracking, and timeliness of reporting limit their full contribution to improving sustainability of dairy projects.

Correlation analysis provided that monitoring and evaluation indicate a weak but statistically significant positive relationship with sustainability ($r = 0.287$, $p < 0.01$). Monitoring and evaluation ($\beta = 0.079$, $p < 0.05$) had weaker individual contribution. This implies that while feedback systems, performance tracking, resource access, and support services are important, their direct contribution to sustainability is modest.

## 5.3 Conclusions

The study concludes that multi-stakeholder practices significantly influence the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society. The findings show that strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation collectively contribute to improved sustainability outcomes, although their effects vary in strength.

### 5.3.1 Strategic Planning

The study concludes that strategic planning has a significant positive influence on the sustainability of dairy projects. Although respondents generally perceived strategic planning practices as moderately strong, with clear goals and participatory structures in place, weaknesses were observed in goal alignment, inclusivity in decision-making, and consistency between long-term vision and short-term activities. The statistical results further confirmed a strong positive and significant relationship between strategic planning and sustainability, indicating that effective strategic direction improves project outcomes, even though its individual predictive strength is moderate. The regression results showed that strategic planning had a p-value of 0.011, which is less than the significance level of 0.05. Therefore, the study rejected the null hypothesis ($H_{01}$) and concluded that strategic planning has a statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society.

### 5.3.2 Stakeholder Engagement

The study concludes that stakeholder engagement has the strongest and most significant influence on the sustainability of dairy projects among all the studied variables. The statistical findings confirmed a very strong positive relationship and a highly significant predictive effect of stakeholder engagement on sustainability, indicating that effective engagement of

stakeholders is a critical driver of sustainable project performance. The regression results showed that stakeholder engagement had a p-value of 0.000, which is less than the significance level of 0.05. Therefore, the study rejected the null hypothesis ($H_{02}$) and concluded that stakeholder engagement has a statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society.

### 5.3.3 Resource Mobilization

The study concludes that resource mobilization has a positive but relatively weak influence on the sustainability of dairy projects. While inputs, financial resources, and support services are available within the cooperative, challenges such as delays in input supply, limited access to credit, and uneven distribution of services reduce their effectiveness. The statistical results showed a weak but significant relationship with sustainability, indicating that resource availability alone is not sufficient unless efficiently accessed, allocated, and utilized. The regression results showed that resource mobilization had a p-value of 0.045, which is less than the significance level of 0.05. Therefore, the study rejected the null hypothesis ($H_{03}$) and concluded that resource mobilization has a statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society.

### 5.3.4 Monitoring and Evaluation

The study concludes that monitoring and evaluation have a positive but relatively modest influence on the sustainability of dairy projects. Although feedback mechanisms, performance tracking, and reporting systems are in place, their effectiveness is constrained by weak responsiveness, inconsistent implementation, and delays in reporting. The statistical results confirmed a weak but significant relationship with sustainability, indicating that monitoring and evaluation contribute to sustainability mainly by enhancing accountability and learning, but their impact is limited by implementation gaps.

The regression results showed that monitoring and evaluation had a p-value of 0.014, which is less than the significance level of 0.05. Therefore, the study rejected the null hypothesis ($H_{04}$) and concluded that monitoring and evaluation have a statistically significant influence on the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society.

## 5.4 Recommendations

Overall Recommendation

The study recommends that the cooperative adopts an integrated multi-stakeholder management approach that strengthens coordination between planning, engagement, resource allocation, and monitoring systems, as this significantly enhance the long-term sustainability of dairy projects.

Based on the study objectives and findings, the following recommendations are made to enhance the sustainability of dairy projects in Githunguri Dairy Farmers' Cooperative Society.

### 5.4.1 Strategic Planning

The study recommends strengthening the alignment between strategic goals and day-to-day operations within the cooperative. Management should ensure that strategic objectives are clearly communicated to all stakeholders, especially farmers, in a simplified and actionable manner. Greater inclusivity in decision-making should be promoted to enhance ownership and commitment among stakeholders. In addition, mechanisms should be strengthened to ensure that short-term activities are consistently linked to long-term strategic vision to improve coordination and sustainability outcomes.

### 5.4.2 Stakeholder Engagement

The study recommends enhancing stakeholder engagement by improving transparency and openness in communication processes. The cooperative should ensure that all stakeholders, including small-scale and remote farmers, are actively included in decision-making processes to strengthen ownership and trust. Collaboration among partners should also be strengthened through structured coordination frameworks to reduce duplication of efforts and improve efficiency. Regular and well-structured meetings should be reinforced to ensure effective information sharing and joint decision-making.

### 5.4.3 Resource Mobilization

The study recommends improving efficiency in the mobilization and distribution of resources within the cooperative. Timely access to inputs such as feeds and equipment should be prioritized to avoid disruptions in production cycles. Access to financial resources should be enhanced by simplifying credit procedures and strengthening linkages with financial institutions. Additionally, equitable distribution of support services such as training and extension should be ensured to guarantee that all farmers benefit equally and improve overall productivity.

### 5.4.4 Monitoring and Evaluation

The study recommends strengthening monitoring and evaluation systems to improve their responsiveness and effectiveness. Feedback mechanisms should be reinforced to ensure that stakeholder concerns are acted upon in a timely manner. Performance tracking should be conducted consistently using clearly defined indicators to enhance accountability and decision-making. Reporting systems should also be improved to ensure timely dissemination of information to all stakeholders, thereby supporting evidence-based planning and continuous improvement in project implementation.

## 5.5 Suggestions for Further Research

While this study makes significant contributions to understanding multi-stakeholder practices and sustainability in dairy cooperative development, it also reveals several areas that warrant further scholarly attention. The following suggestions are informed by the study's limitations, emergent findings, and gaps in the existing literature.

First, this study was limited to Githunguri Dairy Farmers' Cooperative Society in Kiambu County. Future research should replicate the study across multiple dairy cooperatives in different counties and agro-ecological zones in Kenya to test the generalizability of the findings. Comparative studies involving cooperatives operating under different governance structures, membership sizes, and resource endowments would provide a broader understanding of how multi-stakeholder practices influence sustainability across diverse institutional contexts within the agricultural sector.

Second, this study employed a cross-sectional research design, which provides a snapshot of the relationship between multi-stakeholder practices and sustainability at a single point in time. Future studies should adopt longitudinal designs to track changes in these relationships over time, particularly to assess whether improvements in strategic planning, stakeholder engagement, resource mobilization, and monitoring and evaluation lead to sustained and measurable gains in dairy project sustainability. Longitudinal data would also allow researchers to establish stronger causal inferences beyond the correlational evidence provided by this study.

Third, resource mobilization was found to have the weakest predictive influence on sustainability ($\beta = 0.066$, $p < 0.05$), despite its theoretical importance. Future research should employ qualitative or mixed methods approaches to investigate the specific barriers that prevent effective resource utilization from translating into improved sustainability outcomes. Studies could examine how equity in resource distribution, members' financial literacy, and the

role of external financial institutions interact to determine the effectiveness of resource mobilization in cooperative settings.

Fourth, institutional leadership culture emerged as the second strongest predictor of sustainability ($\beta = 0.351$, $p < 0.001$) and contributed an additional 9.3% explanatory power ($\Delta R^2 = 0.093$) beyond the four multi-stakeholder practices. Future research should explore how specific leadership styles—such as transformational, servant, and participatory leadership—shape the institutional culture of cooperatives and moderate the effectiveness of multi-stakeholder practices. Comparative studies examining leadership culture in cooperatives with varying levels of sustainability performance would be particularly valuable in informing targeted governance interventions.

Fifth, stakeholder engagement was identified as the strongest predictor of sustainability ($\beta = 0.496$, $p < 0.001$) in this study. Future research should examine the role of digital communication platforms and technology-enabled tools in enhancing stakeholder engagement, particularly for geographically dispersed farmer-members in large cooperatives. As digital transformation increasingly shapes agricultural value chains in Kenya and across sub-Saharan Africa, understanding how technology mediates engagement, communication efficiency, and collaborative decision-making could yield valuable insights for cooperative development practice.

Finally, this study focused on internal organisational factors as predictors of sustainability. Future research should incorporate external contextual variables—such as government policy frameworks, regulatory environments, climate variability, and market integration—to assess how the policy and environmental context moderates the relationship between multi-stakeholder practices and dairy project sustainability. Such studies would contribute to a more holistic understanding of the conditions under which multi-stakeholder approaches achieve optimal sustainability outcomes in cooperative agricultural development.

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## APPENDICES

### APPENDIX I: Authorization letter from the Department



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

Faculty of Arts and Social Sciences

Department *of Social Sciences and Development Studies*

17th December 2025

***TO WHOM IT MAY CONCERN***

Dear Sir/Madam,

***RE: LYNNET MUTUKU MUMBUA – REG. NO. 1064098***

This letter is to confirm that the above-named individual is a post-graduate student pursuing a ***Master's of Arts in Project Planning and Management*** at The Catholic University of Eastern Africa.

As part of the degree requirements, the student is required to undertake a research study with the title:

> ***"Multi-Stakeholder Practices and the Sustainability of Dairy Projects in Githunguri Dairy Cooperative Society, Kiambu County - Kenya".***

The information gathered during this study will be used solely for academic purposes and will be handled with strict confidentiality.

Any assistance accorded to her will be highly appreciated.

Yours faithfully,

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA HEAD OF DEPARTMENT 17 DEC 2025 SOCIAL SCIENCES AND DEVELOPMENT STUDIES P.O. Box 62157 - 00200, NAIROBI

***Dr. Mary Mutisya***
***HoD, Department of Social Sciences and Development Studies***

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA) P.O. BOX 62157 00200 Nairobi – KENYA
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## APPENDIX II: NACOSTI CERTIFICATE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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Date of Issue: **18/February/2026**

**RESEARCH LICENSE**



**This is to Certify that Miss.. LYNNET MUMBUA MUTUKU of Catholic University of Eastern Africa, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kiambu on the topic: MULTI-STAKEHOLDER PRACTICES AND SUSTAINABILITY OF DAIRY PROJECTS IN GITHUNGURI DAIRY COOPERATIVE SOCIETY, KIAMBU COUNTY, KENYA for the period ending : 18/February/2027.**

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I HEREBY CONFIRM THAT **LYNNET MUMBUA MUTUKU** REG NO: **1064098**, SUBMITTED A CHECK OF ANTIPLAGIARISM ON EVALUATION OF **MULTI-STAKEHOLDER PRACTICES AND SUSTAINABILITY OF DAIRY PROJECTS IN GITHUNGURI DAIRY COOPERATIVE SOCIETY, KIAMBU COUNTY, KENYA. A THESIS PRESENTED TO THE FACULTY OF ARTS AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE IN MASTER OF ARTS IN PROJECT PLANNING AT THE CATHOLIC UNIVERSITY OF EASTERN AFRICA, NAIROBI, KENYA.**

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