PROJECT MONITORING AND MANAGEMENT OF AGRO PASTORAL INDUSTRIES: A STUDY OF BIYOOLE PROJECT IN HARGEISA, SOMALIA

BY

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2022-08-11647

A RESEARCH DISSERTATION SUBMITTED TO THE COLLEGE OF HUMANITIES AND SOCIAL SCIENCES IN PARTIAL FULFILMENT FOR THE AWARD OF A MASTERS' DEGREE IN PROJECT PLANNING AND MANAGEMENT OF KAMPALA INTERNATIONAL UNIVERSITY

SEPTEMBER, 2024

DECLARATION

I Fardawsa Abdikadir Abdi Isse, hereby declare that this research dissertation is as a result of my personal effort and has never been presented to any Institution of Higher Education for any award.

Signature: ..... **Date:** 27/9/2024

FARDAWSA ABDIKADIR ABDI ISSE

APPROVAL

This is to certify that this dissertation titled "***Project Monitoring and management of agro pastoral industries: A Study Biyoole project, in Hargeisa, Somalia***" written by **Fardawsa Abdikadir Abdi Isse** was carried out under my supervision and is now ready for submission to the College of Humanities and Social Sciences (CHSS) of Kampala International University.

Signature: …… **Date: ……27/9/2024……**

DR. OLOWO GEORGE

DEDICATION

I dedicate this piece of work to my father Mr. Abdikadir Abdi Isse, mother Mrs. Hawa Elmi Mohamed and relatives for their support both financial and emotional during this study at Kampala international University of my studies. May God richly bless them.

ACKNOWLEDGEMENTS

I express my profound gratitude to the Almighty God for the gift of life and wisdom that sustained me throughout my studies.

My heartfelt appreciation goes to my parents especially my Father Mr. Abdikadir Abdi Isse and my Mother Mrs. Hawa Elmi, whose unwavering support and encouragement were instrumental to my academic journey. I am forever grateful for their love and belief in me.

I would like to extend my sincere and heartfelt gratitude to my supervisor, Dr. George Olowo, for his invaluable guidance, critical reviews, and expert advice. His regular availability and commitment to my research work have been instrumental to its successful completion.

I am deeply indebted to the exemplary lecturers at the College of Humanities and Social Sciences at Kampala International University, who have provided me with great assistance and excellent academic counsel. Their dedication and expertise have been invaluable.

I gratefully acknowledge the contributions and cooperation of the management and staff of the Biyoole project in Hargeisa, Somalia, from 2022 to 2024. Their willingness to provide the necessary information during my research visits was essential to the successful accomplishment of this study.

Finally, my heartfelt appreciation goes to my friends, whose unconditional support and encouragement have been a source of strength throughout this endeavor. It is through their unwavering companionship that I have been able to successfully complete this work.

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LIST OF ABBREVIATIONS

AIC	AIDS Information Centre
AusAID	Australian Agency for International Development
CLEAR	Centre for Learning and Evaluation Results
CSO	Civil Society Organization
HCD	Human Capacity Development
ICOBI	Integrated Community – Based Initiative
ICT	Information communication technology
IFAD	International Fund for Agricultural Development
INGOs'	International Non-Governmental Organizations
LEMU	Land and Equity Movement Uganda
LFA	Logical framework Analysis
NGO	Non- Governmental Organizations
NIMES	National Integrated Monitoring System
PACE	Programme for Accessible health, Communication and Education
PM	Participatory Monitoring
PME&R	Participatory Monitoring, Evaluation and Reporting
RBM	Results Based Management
RHU	Reproductive Health Uganda
SDS	Strengthening Decentralization and Sustainability
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP -	United Nations Development Programme
USAID	United States Agency for International Development
VSO	Volunteer Services Overseas
WRA	White Ribbon Alliance
WAYS	Waverley Action for Youth Service

ABSTRACT

Monitoring systems allow for project activities to be measured and analyzed. Unfortunately, there is often a gap in the design of monitoring systems; generation of information during the process of Monitoring and use of this information in future designs. The purpose of this study is to establish the impact of Monitoring of Project Management of Biyoole project in Hargeisa Somalia. The study was guided by the following research objectives: To determine the effect of structure of monitoring on the management of Biyoole project in Hargeisa Somalia, to assess the effect of human resource capacity on the management of Biyoole project in Hargeisa Somalia and to examine the effect of data quality on the management of Biyoole project in Hargeisa Somalia. The study used the Logic model and Control Theory. The research design used was a cross-sectional. The study targeted two hundred & sixty (260) respondents. However, from the population of 260 respondents, a sample size of 158 respondents was selected using a formula for determining Sample size by Sloven's formula. The data collection instrument used was a questionnaire and interview guide with 158 of them sent by the researcher to 158 respondents which received a response rate of 127 respondents. The findings were that, monitoring structure, data quality, and human resource capacity influenced the management of monitoring system in Biyoole project in Hargeisa Somalia as monitoring officers, staffs who had monitoring experience and training, utilized monitoring information adequately and carried out regular data collection from various sources. More so the management of monitoring and evaluation systems was satisfactory given the fact that information was accessible to organizational staff; feedback after measurement of project activities was received and the information needs of staff were met. Therefore, the study recommends that Constitutional Review Support should ensure routine data audit, conduct preliminary assessment of impacts by conducting case studies and combine the use of logical framework with outcome mapping. The study recommends that credibility is also essential to any monitoring system. Valid and reliable data help ensure the credibility of the system. To be credible, monitoring systems need to be able to report all data— both good and bad. If bad news, or information demonstrating failure to meet desired outcomes and targets, is deliberately not reported, the system will not be credible. There is need for data protection.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study was carried out in order to examine how influence of monitoring on management of Biyoole project in Somalia. This chapter introduces the background of the study, statement of the problem, and purpose of the study, objectives of the study, research questions, scope of the study, and significance of the study.

1.1 Background of the study

This section encompasses four perspectives namely historical, theoretical, conceptual and contextual perspectives.

1.1.1. Historical perspective

Globally, the activity of project monitoring in project management was originally introduced by consultants in the early 1980s and has subsequently gained much attention in recent years (La Londe, 1998) and by now it is termed as more like a strategy than activity that must be obeyed if the project is to gain success (Cowell, 2009). Project monitoring has taken on greater strategic importance in project management in recent years — and it will assume even greater significance in the years to come (Callender & Mathews, 2000). It started more with coming up with efficient project reports that are sounding for project funders to make decisions and later it enrolled as vital elements of control, monitoring and budgeting. In Swaziland, their project monitoring and evaluation programme calls for the Government of the Kingdom to develop project plans, monitoring tools for data collection and evaluation criteria to be used to ensure that the project becomes efficient and effective. In USA, project monitoring was adopted with a main aim of controlling corruption involved in the process of project implementation that had succumbed most projects in public sector organization. Therefore, having project M/E plans, project monitoring and evaluation methodology emerged into the field of project management and development.

In developed countries, project monitoring has undergone a series of development stages from provision of management reports to a more strategic function in projects implemented in public entities. African countries have been awakened on the importance of effective project

monitoring as a solution to increased poor management and failure of projects in both NGOs and Government organizations (Byokusheka, 2018). In Nigeria, project monitoring and evaluation was adopted in 1980s during the decades of military rule due to dramatic corruption in government business to the extent that there was too much wastage of public resources due to poor procurement practices with little regard to economy and efficiency. The existing rules (code of conduct Bureau, Financial regulations, Public Accounts Commission, Public Complaints Commission etc) were disregarded and manipulated. At the end, it was realised that corruption has reduced and timely services were realised in most of the projects.

In Somalia, a wave of Project Monitoring began in 1990s culminating into the emergency of decentralisation policy and enactment of the Public Procurement and Disposal of Public Assets (PPDA) Act 2023, and regulations 2023 and Local Government Act 1997. Unfortunately, many central government ministries and agencies have since then not followed prescribed practices. One of the main functions of the PPDA under section 7 (b) of the PPDA Act is to monitor and report on the management of agro pastoral industries the projects implemented in government organisations in Somalia and advise on desirable changes and value for money. However, despite the presence of such instruments, the managements of most of the projects implemented in government institutions have not been convincing and lack sustainability (Murray 2019).

In Hergisa according to a study that was carried out by FAO-SWALIM (2017), the Agricultural and Livestock sectors play a key role in food security, natural resources management, and environmental protection in Somalia. Due to the fact that many regions lack permanent sources of water supply, Structures that collect water from the surface, such as sand dams and water catchments, are essential to the survival of the human population and livestock. However, during the middle of the dry season, these dry up, which leads to a severe lack of water that in extreme cases results in the death of humans as well as livestock. During prolonged droughts, it is typical practice in these types of areas to transport water using trucks. These reservoirs have waters that are contaminated with organic materials, as well as silt and, sometimes, garbage. Additionally, there is a significant possibility of biological contamination. Due to the problems of quantity, quality and consumption of Agriculture and Livestock, the present inquiry was justified.

1.1.2 Theoretical perspective

The study is anchored on the two theories that is to say the logic model of Patton, and the control theory of management as discussed belwo;

Logic model of Patton (2018) guided the study; the logical model is a systematic and visual way to present the logical relationships between resources (inputs), activities, outputs and outcomes or changes that result from programme interventions. The Logic model portrays the underlying rationale of the program or an initiative. Using a logic model throughout the program helps to organize and systematize program planning, monitoring, accountability and evaluation functions. In program implementation, a logic model prioritizes the program aspects most critical for tracking and reporting.

The logical model is relevant in establishing and strengthening M&E systems to enhance management of development programmes. Evaluation experts agree that use of the logic model is an effective way to ensure program success. The logical model supports to assess the effectiveness of program design and planning, the model serves also as a planning tool to develop program strategy and approach relevant to achieve results. For program evaluation and strategic reporting, a logic model presents program information and progress toward goals in ways that inform, advocate for a particular program approach.

The theory was relevant in assessing management of agro pastoral industries. A study of Biyoole Project in Hargeisa, Somalia in the study, it supported analysis of the logical linkage (cause-effect relationship) between project objectives to cause desired impact and appropriateness of project indicators tracked in the M&E plans to measure project progress and outcomes. The model supported assessment of alignment of the existing M&E systems to measure project objectives, indicators and risks. The logic model provided basis to examine the effectiveness of processes was utilized to collect and analyze data needed to monitor and improve programming by agro pastoral industries in Hargeisa, Somalia. The model also was guided assessment of how existing programmes track and report and make adjustments to improve programme relevance.

The study also utilized the Control Theory, the Control Theory of management, which relates to systems and feedback mechanisms in organizations, was developed by Norbert Wiener in 1948. Wiener, a mathematician and philosopher, introduced the foundational concepts of

cybernetics, which heavily influenced the development of Control Theory. His book, "Cybernetics: Or Control and Communication in the Animal and the Machine," laid the groundwork for understanding how systems can be regulated through feedback loops, a principle that has been widely applied in management and organizational contexts.

Control Theory, propounded by Norbert Wiener in 1948, emphasizes the importance of feedback mechanisms in regulating systems, making it highly relevant to the study of project monitoring and management in agro-pastoral industries, particularly the Biyoole Project in Hargeisa, Somalia. By implementing systematic feedback mechanisms, project managers can continuously monitor progress, identify deviations from planned activities, and take corrective actions promptly, ensuring efficient achievement of project objectives and effective resource utilization (Wiener, 1948). This theory supports improved decision-making processes by providing essential data that inform strategies, helping project managers adapt to changing conditions and address issues before they escalate, which is crucial for the dynamic environment of agro-pastoral projects (Steinmann & Schreyögg, 1984). Additionally, Control Theory helps maintain project scope and quality by establishing clear benchmarks for performance, ensuring that the project remains on track and meets its goals (Daft, 2021).

Moreover, Control Theory enhances accountability through regular monitoring and evaluation, holding stakeholders accountable for their roles and responsibilities, which is vital for transparency and effective governance in projects like Biyoole (Merchant & Van der Stede, 2017). It also facilitates adaptive management, allowing projects to remain flexible and responsive to external changes such as climatic variations and socio-economic shifts, which are common in agro-pastoral settings (Simons, 2019). Furthermore, Control Theory aids in optimizing resource utilization by ensuring that all activities are aligned with planned resource allocations, minimizing waste and maximizing impact, which is essential in resource-constrained environments like Somalia (Horngren et al., 2021).

Despite its relevance, Control Theory faces several criticisms when applied to the Biyoole Project in Somalia. One major criticism is the potential for rigidity and inflexibility. The emphasis on strict monitoring and feedback can lead to a rigid management approach, which can stifle flexibility and innovation needed in dynamic and rapidly changing environments like agro-pastoral projects (Simons, 2019). This rigidity can hinder the project's ability to adapt quickly to unexpected changes, such as sudden weather changes or socio-economic shifts,

which are common in Somalia. Another criticism is the overemphasis on quantitative metrics, which can overlook qualitative aspects such as community engagement, cultural considerations, and social impacts, leading to an incomplete assessment of project performance (Merchant & Van der Stede, 2017).

Moreover, implementing comprehensive control mechanisms can be resource-intensive, posing a challenge in resource-constrained environments like Somalia. Allocating sufficient resources to maintain rigorous monitoring systems might divert resources away from other critical project activities (Daft, 2021). There is also the risk of micromanagement, where detailed monitoring and frequent feedback loops undermine the autonomy of project teams, reducing their motivation and hindering swift decision-making on the ground (Horngren et al., 2021). Control Theory's primary focus on internal control mechanisms might neglect external factors such as political instability and security issues, which significantly influence project outcomes in Somalia (Simons, 2019). Additionally, the complexity of implementing advanced control systems requires high levels of expertise and technology, which may not be readily available in regions with limited technical infrastructure (Steinmann & Schreyögg, 1984). Finally, the short-term focus of feedback mechanisms might lead to prioritizing immediate metrics over long-term sustainability and strategic objectives, which are crucial for projects aimed at building long-term resilience and sustainability like Biyoole (Anthony & Govindarajan, 2017).

1.1.3 Conceptual perspective

This study focuses on the Monitoring systems which are examined in terms of Monitoring planning, monitoring training and baseline and management of Biyoole project. The relationship between the above factors and management of road projects in that the factors are the tools to achieve the ideal output while management on the other hand is an ideal outcome.

Monitoring has been defined by many authors in different ways. Organization for Economic Cooperation and Development (OECD, 2022) defined monitoring as a continuous function that uses systematic collection of data on specific indicators to provide management and main stakeholders of an on-going development intervention with indications of the extent of progress and achievement of objectives.

Monitoring is a tool employed to assess the relationships of intentions versus actions, actions versus outcomes and outcomes versus impacts. However, the most important yet quite often the most neglected aspect of monitoring is feedback. It is the feedback of lessons learned through Monitoring that assists in correcting current mistakes to improve future decisions Khan, (2018). A results-based Monitoring system is essentially a feedback system; it is a management tool to measure and evaluate outcomes, providing information for governance and decision making. A results-based system, whilst not neglecting the monitoring of inputs and outputs, attaches the highest importance to providing feedback on results at the level of outcomes and goals (Edmunds & Marchant, 2018).

Kelly, (2018), argues that good Monitoring systems for civil society programs as ones which are: dynamic, participative, reflective and evolving. First, dynamic systems encourage `practical learning and promote regular ways of seeking dynamic feedback from multiple sources about the benefits, problems and impacts of the intervention. Secondly, participative and gender sensitive systems actively seek to overcome barriers of gender, age, power, culture and other issues which limit the participation of all stakeholders in the monitoring and assessment process. Thirdly, reflective systems encourage staff, partners and stakeholders to create regular space and time for analyzing information and reflecting back on underlying assumptions or `theories of change which underpin the interventions. Fourthly, evolving systems are adapting and changing in order to keep them as light and simple as possible while providing `real timely information which informs on-going improvement of the intervention.

A monitoring plan, on the other side is a document that helps to track and assess the results of the interventions throughout the life of a program. It is a living document that should be referred to and updated on a regular basis. While the specifics of each program's Monitoring plan will look different, they should all follow the same basic structure and include the same key elements. A Monitoring plan included some documents that may have been created during the program planning process, and some that needed to be created new. For example, elements such as the logic model/logical framework, theory of change, and monitoring indicators may have already been developed with input from key stakeholders and/or the program donor (Bakker *et al*., 2020).

Monitoring is used to assess the management of projects, institutions and programmes set up by governments, international organisations and NGOs. Its goal is to improve current and future management of outputs, outcomes and impact. Monitoring is a continuous assessment

of programmes based on early detailed information on the progress or delay of the ongoing assessed activities. An evaluation is an examination concerning the relevance, effectiveness, efficiency and impact of activities in the light of specified objectives.

The management of Biyoole project can be judged by using different traditional approach like day-to-day monitoring, monthly or weekly management reports, management reviews, key management indicators, project audit reports etc. In these traditional approaches, usually there are two data sources, the budget (or planned) expenditures and the actual expenditures. The comparison of budget versus actual expenditures merely indicates what was planned to be spent versus what was actually spent at any given time (Mohd.Faris Khamidi, Waris Ali and Arazi Idrus, 2021). Accordingly, this approach does not count for the value of work accomplished thus ignoring a third dimension: the earned value (EV) of work (Fleming and Koppelman, 2023). What is missing from most of these analyses is an understanding of how much work has been earned during the project execution and its integration with cost and time (Al-Jibouri, 2023).

In this study monitoring is conceptualized as continuous and systematic assessment of project implementation based on targets set and activities planned during the planning phases of the work and the use of inputs, infrastructure, and services by project beneficiaries on the Monitoring Structure, Data Quality and Monitoring Methods that is as a result of management of Biyoole project.

1.1.4 Contextual perspective

Project management practices plays a vivacious role in guaranteeing projects have impacted on the intended beneficiaries (Koskela & Howell, 2022). In order to achieve the objective of many modern businesses, integrate many functions in organizations, and achieve employee motivation, hence higher productivity, many businesses are increasingly becoming project oriented (Shir, 2021). However, demonstration of the value of the various applied project management practices has been illusive and even paradoxical. Fernandes, Ward & Araujo (2023) concur by stating that the actual value resulting from investment in project management practices such as stakeholder involvement, monitoring and evaluation, capacity building and project leadership has been hard to define and measure.

Any project manager needs to use a wide range of project management practices so as to ensure projects are sustainably managed. These practices are categorized into distinct knowledge areas

such as stakeholder involvement, management of the venture's risks, personnel, monitoring and evaluation, ways of communicating and building capacity (PMI, 2018). Kerzner (2017) indicated that project managers face challenges in applying the knowledge into practice either because one lacks enough experience in applying these knowledge areas or the training is not sufficient enough to give competence in their application. Kerzner (2017) ascertain that with deficiencies of whichever nature in application of project management practices relevant for a given undertaking can have a detrimental influence on the sustainably running the undertaking.

According to UNDP, (2017), the Roadmap and MoU define the guiding principles for the Biyoole process, namely a fixed timeline, Somali ownership, continuation and recognition of the work done by the 9th parliament, inclusivity, transparency, participation, accountability as well as partnership and cooperation. This UNDP programme envisages assisting the key stakeholders in upholding these principles while carrying out their respective mandates. This UNDP capacity development programme is fully aligned with the national vision of the Biyoole process and the respective planning schedule and the key deliverables outlined in the Roadmap, namely: regularization of the constitution, negotiations on political issues, tabling and publication of the 9th Parliament's Constitutional Options report, civic education and public participation, national dialogue and consensus-building forum, review and adoption of the constitution, referendum or national validation.

The Roadmap furthermore defines three key objectives, namely: to achieve the target of having a finalized national constitution completed within the mandated timeframe; to ensure that the constitution review process is based on national dialogue and public consultation with the Somali people and key role players; to educate the Somali citizens about the process through broader civic education programs that enabled society to understand their constitutional rights and duties (UNDP, 2017).

The Project is designed to provide responsive support to the key players in the Biyoole process, particularly MoCA, ICRIC and the FMS; and support for public education and consultation, particularly envisaging the inclusion of women, youth, minorities, and other marginalized people. The projects envisaged in the Roadmap and the MoU, especially with regards to consultative processes and civic education, are considered important entry points for respective Project activities (UNDP, 2020).

In this vein, this study focused on examining the influence of project monitoring on management of Biyoole project in Hergeisa, Somalia.

1.2 Statement of the problem

Effective project monitoring is crucial for the management of any development initiative, particularly in environments like Somalia where pastoral and small-scale agriculture communities face significant challenges, such as water scarcity during dry seasons.

Compounding these challenges are frequent droughts and floods, which further strain the country's water security (WB, 2019). In response to these challenges, the World Bank funded the "Somalia Agro-pastoral Productivity and Resilience (Biyoole)" project with $42 million under Somalia's ninth National Development Plan (NDP 9). Despite the project's aims to enhance agro-pastoral productivity and resilience, there are concerns about the effectiveness of its monitoring and evaluation practices. Reports suggest that the Biyoole project may have inadequacies in its monitoring and evaluation framework, leading to suboptimal performance in terms of scope, timeline adherence, and resource utilization (Robert, 2020). The absence of robust monitoring and evaluation practices not only undermines the achievement of project outcomes but also jeopardizes sustainability once donor funding phases out. Effective monitoring is essential for identifying issues promptly, implementing corrective measures, and informing future project strategies. Scholars emphasize that strong project management hinges on rigorous monitoring and evaluation practices (UNDP, 2020).

Assessment of projects monitoring processes and effect on management is critical in identifying opportunities for improved Monitoring and evaluation project plan. The assessment of regular project management, enable the managers of projects to take corrective measures and at the same time inform future strategies in the course of initiation and in implementation of projects. Many scholars have linked project management to the practice of Monitoring and evaluation.

1.3 Purpose of the study

To examine the influence of project monitoring on management of agro pastoral industries: A study of Biyoole project in Hargeisa, Somalia.

1.4 Specific objectives

(i) To examine the influence of monitoring on the management of Biyoole Project in Hergisa, Somalia.
(ii) To assess the impact of data quality on the management of monitoring systems of Biyoole Project in Hergisa, Somalia.
(iii) To identify the relationship between Monitoring methods and the management systems of Biyoole Project in Hergisa, Somalia.

1.5 Research questions

(i) What is the influence of monitoring on the management of monitoring systems of Biyoole Project in Hergisa, Somalia?
(ii) What is the impact of data quality on the management of monitoring systems of Biyoole Project in Hergisa, Somalia?
(iii) What is the relationship between Monitoring methods and the management systems of Biyoole Project in Hergisa, Somalia?

1.6 Scope of the study

1.6.1 Geographical scope

This study was conducted from Hergisa, Somalia at the Biyoole project. The project was initiated by the UNDP in Somalia in 2020.

1.6.2 Content scope

The study focused on the effect of monitoring process on project management of Biyoole project in Hergisa, Somalia, the effect of monitoring technical expertise on project management of Biyoole project in Hergisa, Somalia, the effect of management participation in monitoring on project management of Biyoole project in Hergisa, Somalia and the effect of information systems on project management of Biyoole Project, Hergisa, Somalia.

1.6.3 Time scope

The study covered a period of 5 years i.e. 2021-2020, so that the enough data would be got for the research. This is because it is during this period when the Biyoole project in Hergisa started. The data collection process took two months (October to December, 2023) because of the nature of exercise that was undertaken in gathering, editing and processing data.

1.7 Significance of the study

Some of the benefits that this study offers are indicated below

The research findings would help scholars falling under the project management field specifically monitoring to understand influence of specific practices of monitoring on project management. The study might inform strategic programming in donor-funded projects.

The study will provide analysis to establish best practices in monitoring for improved project management. Information from the study might be for mangers on donor-funded projects. They study will establish existing gaps in practice of Monitoring and identify opportunities for improvement for increased project outcomes. The study might make significant contributions to the comprehension of the complex association between monitoring practice and project management for better project results.

1.8 Operational definition of key terms

Monitoring refers to the continuous tracking of project by way of collecting and analyzing data as the project progresses. It is the systematic process of collecting and analyzing information to track the efficiency of an organization in achieving its goals (Edmunds & Marchant, 2018).

Evaluation refers to the process of determining the worth or significance of an activity, policy or program. It is the systematic and objective assessment of the ongoing or completed projects in terms of design, implementation and results in order to judge issues such as programme relevance, effectiveness, impact and sustainability (Kelly, 2018)

Monitoring and Evaluation: Monitoring and Evaluation is the process of systematically collecting and analyzing information of ongoing project and comparison of the project outcome/impact against the project intentions (Bakker *et al*., 2020).

Monitoring and evaluation systems is a set of components which are related to each other within a structure and serve a common purpose of tracking the implementation and results of a project (Khan, 2018)

Project Management: This is an ongoing review of the efficiency and importance of a given project. It is used as a means of understanding and improving company, department and personnel management (Al-Jibouri, 2023)

Stakeholders Involvement refers to the inclusiveness of the project primary stakeholders, secondary and tertiary stakeholders in the project monitoring and evaluation process (Jackson, 2018).

Non-Governmental Organization is „a private voluntary association of individuals or other entities, not operated for profit or for other commercial purposes (Kimweli, 2023)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Literature review is a partial summary of the previous work related to the hypothesis of the study that was explored and cited as well as existing knowledge related to project monitoring and evaluation and project management of agro pastoral industries Biyoole project, Hergisa, Somalia in correlation to the research specific objectives.

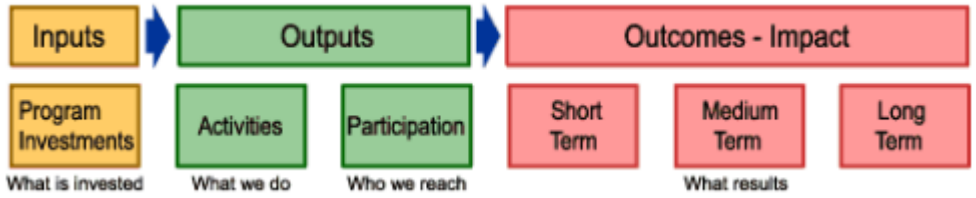
2.1 Theoretical review

The theoretical foundation of this study is crucial in understanding the relationship between project monitoring and management within the context of agro-pastoral industries, specifically focusing on the Biyoole project in Hargeisa, Somalia. The study is informed by two primary theories: the Logic Model and Control Theory.

2.1.1 The logic model

The Logic Model, as proposed by Weiss (1998), provides the foundation for this study. It is a systematic and visual method to present the logical relationships between resources (inputs), activities, and outcomes or changes resulting from program interventions. The Logic Model also portrays the underlying rationale of a development initiative.

Logical Model



Although there are various ways to represent the Logic Model, it is typically illustrated as a diagram resembling a flow chart, containing a series of boxes linked by one-way arrows. This format is detailed in manuals published by the United Way (1996) and the W.K. Kellogg Foundation (2000). The basic components of the Logic Model include:

Inputs: the human, financial, organizational, and community resources that need to be invested in a program so that it was able to perform its planned activities.

Activities: what the program does with the inputs; the processes, events, and actions that are an intentional part of the program implementation.

Outputs: the direct products of program activities, usually measured in terms of the volume of work accomplished (e.g., the number of classes taught, number of group meetings held, number of pamphlets distributed, number of announcements broadcast on radio or TV) and the number of people reached (number who attended each meeting, number who received written materials, etc.).

Outcomes: the benefits or changes in the program's target population; for example, changes in knowledge, perceptions, attitudes, behavior or status. Programs often posit a chain of outcomes that are linked to each other in a logical sequence over time, with immediate outcomes leading to intermediate outcomes, which in turn lead to long term-outcomes. For instance, it may be expected that new knowledge and increased skills (immediate outcomes) lead to modified behavior (intermediate outcomes), which lead, in turn, to improved condition (long-term outcome).

The Logic Model is a tool that practitioners and evaluators increasingly find useful for explicating and presenting program theory for various purposes. A study conducted by the W.K. Kellogg Foundation (2000) demonstrated how the Logic Model helps in structuring program design by breaking it into discrete units—inputs, outputs, and outcomes—that are connected via links. This structured approach allows for the logical and feasibility examination of each component.

Similarly, research by the United Way of America (1996) emphasized that the Logic Model aids in organizing and focusing the articulation of program theory. The findings indicated that dividing a program into smaller, manageable units improves clarity and effectiveness in program planning and evaluation. A paper by Alter and Egan (1997) also explored the role of the Logic Model in strategic planning, finding that it enhances the visual representation of program theory, making it easier to track and assess progress.

Cooksy, Gill, and Kelly (2021) investigated the effectiveness of using the Logic Model for defining and measuring program performance. Their findings suggested that the Logic Model is instrumental in supporting the assessment of program design and implementation. Similarly,

Cozzens (1997) highlighted that the Logic Model serves as an effective planning tool for developing program strategies, which leads to the successful achievement of desired outcomes. Julian (1997) conducted a study on the utilization of the Logic Model as a system-level planning and evaluation device. The research revealed that the model is crucial in ensuring that all program components are logically linked, which helps in achieving long-term goals. McLaughlin and Jordan (1999) found that the Logic Model is also useful for monitoring and reporting on program outcomes, as it provides a clear framework for understanding program performance and impact.

The logical model is relevant in establishing and strengthening M&E systems to enhance management of development programmes. Evaluation experts agree that use of the logic model is an effective way to ensure program success. The logical model supports to assess the effectiveness of program design and planning, the model serves also as a planning tool to develop program strategy and approach relevant to achieve results. For program evaluation and strategic reporting, a logic model presents program information and progress toward goals in ways that inform, advocate for a particular program approach. Using a logic model helps to organize and systematize program planning, management and evaluation functions. In program implementation, a logic model prioritizes the program aspects most critical for tracking and reporting. The theory is relevant to agro pastoral industries in Hargeisa, Somalia and supported assessment of the logical linkage (cause-effect relationship) between project objectives and appropriateness of project indicators tracked in the Minoring plans to measure progress and impact. The model also guided assessment of effectiveness of existing Minoring systems to measure indicators of different levels of project objectives.

The Logic Model was used because it provides a clear, systematic, and visual framework for mapping out the relationships between inputs, activities, outputs, and outcomes in a project. This model allows for a straightforward understanding of how resources are transformed into results, making it an effective tool for planning, monitoring, and evaluating the Biyoole Project in Hargeisa, Somalia. It supports the assessment of program design, helps prioritize key aspects for tracking, and ensures that all components are logically linked to achieve the desired impact.

2.1.2 Control Theory

The study also utilized the Control Theory, the Control Theory of management, which relates to systems and feedback mechanisms in organizations, was developed by Norbert Wiener in 1948. Wiener, a mathematician and philosopher, introduced the foundational concepts of cybernetics, which heavily influenced the development of Control Theory. His book, "Cybernetics: Or Control and Communication in the Animal and the Machine," laid the groundwork for understanding how systems can be regulated through feedback loops, a principle that has been widely applied in management and organizational contexts.

Control Theory emphasizes the importance of feedback loops in regulating systems. In the context of the Biyoole Project, implementing systematic feedback mechanisms allows project managers to continuously monitor project progress, identify deviations from planned activities, and take corrective actions promptly. This ensures that project objectives are met efficiently and resources are utilized effectively (Wiener, 1948).

By applying Control Theory, project managers can enhance their decision-making processes. Regular monitoring and feedback provide essential data that inform decisions, helping to adapt strategies to changing conditions and address issues before they escalate. This leads to better project outcomes and improved management of resources (Steinmann & Schreyögg, 1984).

Control Theory helps in maintaining the project scope and quality by establishing control standards and performance measures. For the Biyoole Project, this means setting clear benchmarks for water resource management, agricultural productivity, and resilience building. Continuous monitoring against these benchmarks ensures that the project stays on track and meets its goals (Daft, 2021).

Control Theory also stresses accountability through regular monitoring and evaluation. In the Biyoole Project, robust monitoring systems can hold stakeholders accountable for their roles and responsibilities, ensuring transparency and enhancing the overall governance of the project (Merchant & Van der Stede, 2017).

One of the key aspects of Control Theory is the ability to adapt to feedback and change. This is particularly relevant for projects like Biyoole, which operate in dynamic and often unpredictable environments. Adaptive management practices, supported by ongoing monitoring, allow the project to remain flexible and responsive to external changes such as climatic variations and socio-economic shifts (Simons, 2019).

Effective control systems are essential for identifying, assessing, and mitigating risks. The Biyoole Project can benefit from a structured approach to risk management by using Control Theory to monitor potential risks continuously and implement preventive measures. This proactive stance can reduce the likelihood of project failures and enhance resilience (Anthony & Govindarajan, 2017).

Control Theory aids in optimizing the use of resources by ensuring that all project activities are aligned with the planned resource allocation. For the Biyoole Project, this means more efficient use of financial, human, and material resources, minimizing waste, and maximizing impact (Horngren et al., 2021). Control Theory provides a comprehensive framework for the systematic monitoring and management of projects. Its principles are directly applicable to the Biyoole Project in Hargeisa, Somalia, offering methodologies to enhance decision-making, maintain quality, ensure accountability, facilitate adaptive management, strengthen risk management, and optimize resource utilization. By integrating Control Theory into the project management practices, the Biyoole Project can achieve its objectives more effectively and sustainably.

Criticisms of Control Theory in relation to the study on "Project Monitoring and Management of Agro-Pastoral Industries: A Study of Biyoole Project in Hargeisa, Somalia," along with citations: Control Theory, with its emphasis on feedback loops and strict monitoring, can sometimes lead to rigidity in project management. In dynamic environments such as agro-pastoral projects in Somalia, where conditions can change rapidly due to weather patterns and socio-economic factors, too much emphasis on control can stifle flexibility and innovation. Projects need to adapt quickly, and overly rigid control mechanisms can hinder this adaptability (Simons, 2019).

Control Theory often relies heavily on quantitative metrics for monitoring and evaluation. However, in the context of the Biyoole Project, qualitative aspects such as community engagement, cultural considerations, and social impacts are equally important. An overemphasis on quantitative data can overlook these crucial qualitative factors, leading to an incomplete assessment of project performance (Merchant & Van der Stede, 2017).

Implementing comprehensive control mechanisms as suggested by Control Theory can be resource-intensive. The Biyoole Project, operating in a resource-constrained environment like Somalia, may find it challenging to allocate sufficient resources—both financial and human—

to maintain rigorous monitoring and evaluation systems. This could divert resources away from other critical project activities (Daft, 2021).

Control Theory's detailed monitoring and frequent feedback loops can lead to micromanagement. This is counterproductive as it can undermine the autonomy of project teams, reduce their motivation, and hinder their ability to make on-the-ground decisions swiftly. For the Biyoole Project, which requires local knowledge and quick decision-making, excessive control can be detrimental (Horngren et al., 2021).

Control Theory primarily focuses on internal control mechanisms and may not adequately account for external factors that can influence project outcomes. In the context of Somalia, external factors such as political instability, security issues, and international aid dynamics play significant roles. Control mechanisms might be ineffective if these external variables are not considered (Simons, 2019).

The implementation of sophisticated control systems can be complex and may require a high level of expertise and technology. In the case of the Biyoole Project, which operates in a region with limited technical infrastructure and expertise, the practical challenges of implementing advanced control mechanisms could be substantial (Steinmann & Schreyögg, 1984).

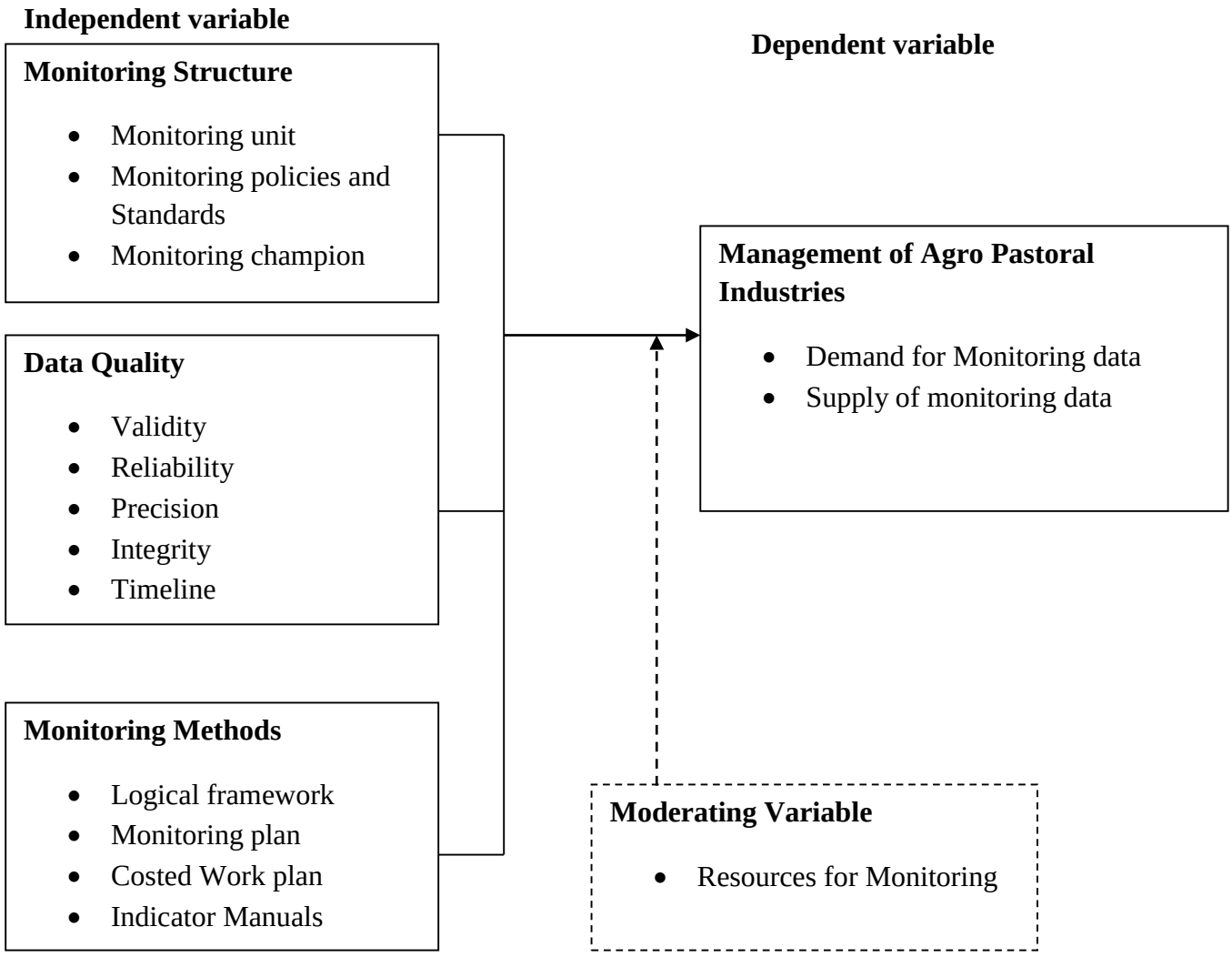
Control Theory's feedback mechanisms often focus on short-term performance indicators. This can lead to a short-term focus in project management, potentially at the expense of long-term sustainability and strategic objectives. The Biyoole Project aims for long-term resilience and sustainability in agro-pastoral productivity, which may be undermined by a short-term focus on immediate metrics (Anthony & Govindarajan, 2017). While Control Theory provides valuable insights into systematic project monitoring and management, its application to the Biyoole Project in Hargeisa, Somalia, has several limitations. These include potential rigidity, an overemphasis on quantitative metrics, resource intensiveness, the risk of micromanagement, neglect of external factors, implementation challenges, and a short-term focus. Addressing these criticisms requires a balanced approach that integrates the strengths of Control Theory with flexibility, qualitative assessments, and consideration of the local context and external factors.

Therefore, while Control Theory provides a robust framework for systematic monitoring and management, its application to the Biyoole Project requires careful consideration of its

limitations. A balanced approach that integrates Control Theory with flexibility, qualitative assessments, and an understanding of the local context will be essential for achieving the project's objectives effectively and sustainably.

2.2 Conceptual review

Figure 2.1: **Conceptual Framework showing the relationship between independent variable and dependent variable**



Source: Adopted from Dr, Dana H. T, Dr. Clark , H. , Collins, E., David C. C. Theory of Change technical papers (2023) and modified by the Researcher (2023).

The illustration above in Figure 2.1 shows the relationship between the Independent Variables and dependent variable, the independent variable involves the elements of Monitoring Systems that had impact on organization management of agro pastoral industries which included Monitoring structure, Data Quality, Human capacity and Monitoring methods and the Dependent Variables involves the Management of monitoring system was measured in two dimensions that is: Demand for monitoring data by Users and Supply of monitoring data. For

the system to perform this, two indicators have to work. An increase in demand for evaluation findings has a potential for driving supply for evaluation findings Adams, (2023). However there are some Moderating Variables, these variables in the model attempt to portray that, whereas Monitoring Systems mentioned above termed as independent variables were expected to enhance the management of monitoring system in an organization but they may not be the end in themselves. Other factors like resources may as well have an effect on the management of the Biyoole project in Hergisa, Somalia.

2.3 Related literature

The related literature review was presented objective by objective. In this section, literature from various scholars is reviewed on the major variables of the study which include;

2.3.1 The influence of monitoring structure on the management agro pastoral industries.

Monitoring (Monitoring) are tools employed to assess the relationships of intentions versus actions, actions versus outcomes and outcomes versus impacts. However, the most important yet quite often the most neglected aspect of monitoring is feedback. It is the feedback of lessons learned through monitoring that assists in correcting current mistakes to improve future decisions (Khan, 2018). A results-based monitoring system is essentially a feedback system; it is a management tool to measure and evaluate outcomes, providing information for governance and decision making. A results-based system, whilst not neglecting the monitoring of inputs and outputs, attaches the highest importance to providing feedback on results at the level of outcomes and goals (Edmunds & Marchant, 2018).

Kelly (2018) argues that good monitoring systems for civil society programs as ones which are: dynamic, participative, reflective and evolving. First, dynamic systems encourage `practical learning and promote regular ways of seeking dynamic feedback from multiple sources about the benefits, problems and impacts of the intervention. Secondly, participative and gender sensitive systems actively seek to overcome barriers of gender, age, power, culture and other issues which limit the participation of all stakeholders in the monitoring and assessment process. Thirdly, reflective systems encourage staff, partners and stakeholders to create regular space and time for analyzing information and reflecting back on underlying assumptions or `theories of change which underpin the interventions. Fourthly, evolving systems are adapting and changing in order to keep them as light and simple as possible while providing `real timely information which informs on-going improvement of the intervention.

The structural arrangements of a monitoring system are important from a number of perspectives; one is the need to ensure objectivity, credibility and rigor of the monitoring information that the system produces Mackay, (2016). Khan (2023), concurs that the conceptual design of an monitoring system is supposed to address issues with regard to the objectives of the system, competent authority, credibility of information, its management, dissemination and recycling into the planning process with special emphasis on community participation. Monitoring systems should be built in such a way that there is a demand for results information at every level that data are collected and analyzed. Furthermore, clear roles, responsibilities, formal organizational and political lines of authority must be established (Kusek & Rist, 2024). There is often a need for some structural support for monitoring, such as a separate evaluation unit which at the very least needs one person who is the internal champion identified to make sure the system is implemented and developed. Moreover, the systems must be consistent with the values at the heart of the organization and work in support of the strategy. There are twelve components of a functional monitoring namely: structure and organizational alignment for monitoring systems; Human capacity for monitoring systems; monitoring partnerships; monitoring plans; Costed monitoring work plans; Advocacy, communication and culture for monitoring systems; Routine monitoring; periodic surveys; Databases useful to monitoring systems; Supportive supervision and data auditing; Evaluation and research; and using information to improve results (UNAIDS, 2018).

Taut, (2017) study, "self- evaluation capacity building in a large international development organization", indicate low organizational readiness for learning from evaluation. Moreover, interviewees similarly described a lack of open, transparent and critical intra-organizational dialogue and a lack of formal structures and processes to encourage reflection and learning as an organizational habit. At the same time, there was rather high awareness of the potential for evaluation to be used as a tool for learning and demand voiced for such evaluations.

Among South African projects, there was a widespread adherence to the logical framework as a foundation for evaluation and reporting with its use as a planning tool locking organizations into established timeframes and specified outputs. These rigid timeframes of project funding and LFAs is not in accord with the complex uneven nature of development work. Furthermore, quantitative rather than qualitative indicators could be advantageous as they were easily measured to demonstrate success while qualitative measures of how much was understood or subsequently used were largely avoided (Bornstein, 2016).

The task of monitoring becomes significantly more challenging as one moves up the log frame and emphasis shifts from management monitoring to results measurement. Moreover, working at the top end of the results chain is a question less of monitoring indicators than of systematic analysis of available evidence which can be a very data-intensive exercise, especially since such higher-level indicators become increasingly costly to collect and complex to analyze (Edmunds & Marchant, 2018). Bakewell and Garbutt, (2021) in their study noted that, where the Logical Framework Analysis (LFA) is used for monitoring, the focus is often the logical framework; to look at the expected achievements laid out in the matrix rather than the work itself. In theory, Bakewell and Garbutt argue, that the logical framework can be revised through the programme cycle and changes made at least to the output level However, this rarely happens in practice.

A study by Ayan in the Hageisa Somalia, (2020) found that donors rarely operate outside the log frame approach where they are boxed in results that are put in the project log frame, and yet the situation on the ground might sometimes affect the achievement of some of the results, hence requiring some aspects of the project to be changed. Therefore, any suggested changes by the implementing organizations had to go through prolonged to and fro communication over the changes. A critique to this argument, however, is that the log frame brings significant benefits for a range of stakeholders while their longevity suggests that, to a great extent, they meet the needs of powerful decision-makers in development organizations (Jacobs, Barnett & Ponsford, 2020). Furthermore, they simplify complex social situations and make them relatively easy to understand, linking budgets to actions and expected results while also providing a tool for setting measurable goals, the basis for assessing management towards them and for holding implementing organizations or staff to account.

For effective monitoring planning organizations have to provide the necessary human resources and incentive structures (Foresti 2017). Incentives to ensure publication of negative as well as positive results would promote learning and accountability. Similarly, investment in evaluative capacity building and pioneering pilots in diverse contexts would promote knowledge sharing and learning (Nicola at al., 2009). This means that staffs have to be provided with adequate incentives, tools and resources to effectively undertake the monitoring processes.

However, in most cases the incentive structures of agencies do not necessarily reward those in the monitoring departments and evaluation jobs are considered stressful, this negatively affect establishing of functional monitoring systems for development programmes.

To optimize monitoring implementation, the interests, needs, influence and power of the users should be identified at the outset and used to inform the design of the evaluation. Patton (2009) further urges that, intended users are more likely to participate in monitoring planning if they understand and feel ownership of the evaluation process. This means that monitoring planning should start with the generation of questions by end users of what need to be answered. Patton (2018) further urges that when a monitoring system is planned in this way, it can foster ownership of the reform process by stakeholders, and increase their commitment to implementation.

Monitoring planning strengthens mechanisms to measure programmes effectiveness through setting targets and indicators. Annual management targets define benchmarks to measure programme management and well-developed and appropriate indicators define priority outcomes and time required to achieve each target. Patton (2009) further urges that potential positive contribution of defining objectives and targets is that "what gets measured gets done".

However, the shadow side of management indicators is that measuring the wrong thing means the wrong thing gets done. Although, defining targets is critical to determine programme success and impact, it is vital that key programme stakeholders have evidence and benchmarks required to set realistic targets, the study thus investigated whether baseline values for project indicators are set to measure future programme management.

2.3.2 Data quality on the management agro pastoral industries

The source of management data is important to the credibility of reported results hence, it is important to incorporate data from a variety of sources to validate findings. Furthermore, while primary data are collected directly by the Monitoring system for monitoring purpose, secondary data are those collected by other organizations for purposes different from Monitoring Gebremedhin, *et al*., (2020). In the design of Monitoring system, the objective is to collect indicator data from various sources, including the target population for monitoring project progress (Barton, 2017). The methods of data collection for Monitoring system included interviews using questionnaires and observations. Moreover, developing key indicators to monitor outcomes enables managers to assess the degree to which intended or promised outcomes are being achieved Kusek & Rist, (2024).

Frequent data collection means more data points; more data points enable managers to track trends and understand intervention dynamics hence the more often measurements are taken,

the less guesswork there were regarding what happened between specific measurement intervals. But, the more time that passes between measurements, the greater the chances that events and changes in the system might happen that may be missed Gebremedhin *et al*., (2020). Guijt, (2019), concurs that to be useful, information needs to be collected at optimal moments and with a certain frequency. Moreover, unless negotiated indicators are genuinely understood by all involved and everyone's timetable is consulted, optimal moments for collection and analysis were difficult to identify.

According to Cornielje, *et al*., (2018), only when the monitoring system is owned by the users of the system is it likely to generate valid and reliable information. However, all too often the very same users may be overwhelmed by the amount of daily work which, in their view, is seen as more important than collecting data and, subsequently, the system may become corrupted. They conclude that it is of extreme importance that the front-line workers are both involved in monitoring and informed about the status of the services and activities they largely provide in interaction with other stakeholder and beneficiaries.

Singh, (2019), study, "the numeric paper forms for NGOs", expressed concern regarding data collection namely: cost, time, training, data accuracy and consistency, storage and means of data analysis. Additionally, the NGOs that had experimented with electronic systems highlighted difficulties with infrastructure and maintenance. Among the key findings of the study was that data collection and form-filling are important activities for many NGOs; cost and ease-of-use are major concerns, often preventing technology-heavy systems; and digitized data is desired, but digitizing data was the bottleneck for data-collection efforts. A system of data collection should be self-organizing and evolving as it gathers information from the environment where the staff would then generate the information in the course of their daily activities Innes & Booher, (2019). In a report of strengthening the monitoring system of HIV and AIDS projects in Child fund Uganda, Ediau, (2022) found that data was not routinely collected, compiled, stored, analyzed and shared by Child Fund Uganda and project stakeholders. As a result, such data was not effectively utilized to track and measure management as well as inform program improvement and learning.

Obure, (2018), in a study of RBM in Northern Ghana indicates a problem associated with post collection data management. As confessed by many field officers, the storage, processing and interpretation of data was ineffectively handled. Results from the study strongly point to a weakness in the system arising from the inability of stakeholders to handle and process data in

a meaningful way. He concludes that this challenge could seriously lead to mere collection of large volumes of data which eventually might not be used in a helpful way. Data must be collected and analyzed regularly on the objectives and intermediate results. Furthermore, the PME&R system allows for three levels of information by project, activity and organization where the data for all organizations involved in a specific activity can be averaged up to the activity level, and the data for all activities can be averaged up to the project level.

In most of the cases, regular progress reporting is conducted for donor purposes that gives an account of activities undertaken and immediate outputs, but misses out on qualitative information as to whether the objectives of the program are being achieved or fall short at the end of the project (Khan, 2023). In order to reassure donors that their money has been well-spent and has made a measurable difference, quantitative indicators are required. Furthermore, an over-reliance on quantitative data may mean that the real essence of change is not recorded or understood. Thus, there is a considerable challenge not only in providing the aid system with the numbers it needs but also in ensuring that these numbers are both meaningful and practical to collect (Hailey & James, 2023).

The classic mantra for monitoring has been to develop Specific, Measurable, Achievable, Reliable and Time bound (SMART) indicators. Therefore, the drive for setting up monitoring systems based only on easily measurable quantitative indicators has perhaps been one of the key reasons for the failure of monitoring systems to contribute useful information for the management of development initiatives. Hence both qualitative and quantitative information are critical, yet an indicator driven approach to monitoring often drives systems in the direction of quantitative information, yet it is often the qualitative information that is required for explanation, analysis and sound decision making (Woodhill, 2021).

Monitoring quality assurance and audits examine appropriateness of development organizations interventions to the needs of beneficiaries, usually expressed in terms of relative coverage, access to or use of services or facilities. Zephirin (2021) emphasizes that quality assurance enables organizations to determine the degree of client and beneficiary satisfaction with outputs and services and provides feedback for future programming.

The Monitoring quality assurance mechanisms strengthen efficiency of resource utilization and value for money. A monitoring quality check verifies returns on investment, costs of operations and administration against programme outcomes. Arild and Keith (2024) points out that

monitoring quality assurance enhances continuous monitoring of public expenditures for proper service delivery this reinforces consistent adherence to budg*et al*locations and utilization of resources.

However, the effectiveness of quality review is limited by inadequate capacity of stakeholders in undertaking quality assurance checks and audits, which results in poor quality of review reports and low utilization of results, the study examined stakeholders' capacity in undertaking quality assurance reviews and audits and extent to which audit recommendations are implemented by stakeholders to improve programme management.

Quality assurance reviews verifies evidence base on the impact of development approaches. Howard and Hugh (2022) urge that systematic monitoring quality reviews inform development practitioners on what evidence exists to pin relevancy of development models and approaches. This affirms confidence to publish and replicate similar approaches for further application in different contexts as best practices. Monitoring quality checks and reviews strengthen development effectiveness rather than aid effectiveness, the primary interest is in which interventions work, not who funded them (White, 2022). Quality assurance provides evidence about the most cost-effective approaches and activities; and supports organizations to focus on value for money and impact rather than recording inputs and activities (Arild, 2021).

2.3.3 Monitoring methods on the management agro pastoral industries

Among South African NGOs, there was a widespread adherence to the logical framework as a foundation for evaluation and reporting with its use as a planning tool locking organizations into established timeframes and specified outputs. These rigid timeframes of project funding and LFAs is not in accord with the complex uneven nature of development work. Furthermore, quantitative rather than qualitative indicators could be advantageous as they were easily measured to demonstrate success while qualitative measures of how much was understood or subsequently used were largely avoided Bornstein, (2016).

The task of monitoring becomes significantly more challenging as one moves up the log frame and emphasis shifts from management monitoring to results measurement. Moreover, working at the top end of the results chain is a question less of monitoring indicators than of systematic analysis of available evidence which can be a very data-intensive exercise, especially since such higher-level indicators become increasingly costly to collect and complex to analyze Edmunds & Marchant, (2018). Bakewell & Garbutt, (2021) in their study noted that, where the

Logical Framework Analysis (LFA) is used for monitoring, the focus is often the logical framework; to look at the expected achievements laid out in the matrix rather than the work itself. In theory, Bakewell & Garbutt argue, that the logical framework can be revised through the programme cycle and changes made at least to the output level However, this rarely happens in practice.

A study by Businge in the Rwenzori region of Uganda, (2020) found that donors rarely operate outside the log frame approach where they are boxed in results that are put in the project log frame, and yet the situation on the ground might sometimes affect the achievement of some of the results, hence requiring some aspects of the project to be changed. Therefore, any suggested changes by the implementing organizations had to go through prolonged to and fro communication over the changes. A critique to this argument, however, is that the log frame brings significant benefits for a range of stakeholders while their longevity suggests that, to a great extent, they meet the needs of powerful decision-makers in development organizations Jacobs, Barnett & Ponsford, (2020). Furthermore, they simplify complex social situations and make them relatively easy to understand, linking budgets to actions and expected results while also providing a tool for setting measurable goals, the basis for assessing management towards them and for holding implementing organizations or staff to account.

NGOs adapt to the variety of log frames as well as templates for the narrative/technical and financial reports used by funding agencies which is an added complexity to the use of the log frame. Moreover, the variety of log frames used and disseminated by international agencies, require that counterparts learn not only how to work with a particular type of log frame but how to work with other various types of log frames Martinez, (2021). The choice of appropriate indicators is an art, requires experience and skill involving a thorough understanding of the information needs of project management and information users at different levels. Furthermore, choosing indicators requires knowledge of how best to obtain and analyze data for the indicators and of the limits imposed by both costs and techniques. Input and output indicators are easier to assess than effect or impact indicators, but the lower‟ level indicators only provide an indirect measure of the success of a project Barton, (2017). With reference to the standards, the worth of an indicator (or a set of them) is to facilitate systematic inquiry through collection, analysis and interpretation of accurate and relevant data.

According to Grove and Zwi, (2018), the log frame contains a natural bias towards quantification in that the matrix demands objectively verifiable indicators, forcing projects to

consider how they measured progress towards intended outcomes. While setting clear objectives and identifying ways of measuring these from the outset helps management and other stakeholders to identify where the project is succeeding or failing, this emphasis on the measurables also represents a crucial weakness. In particular, Grove and Zwi, (2018) argue that relationships between people (both internal and external to the project) and process issues (how the project is undertaken) are likely to be neglected, with attention focused on the most tangible outputs, such as clinics built or vaccinations administered.

In most of the cases, regular progress reporting is conducted for donor purposes that gives an account of activities undertaken and immediate outputs, but misses out on qualitative information as to whether the objectives of the program are being achieved or fall short at the end of the project Khan, (2023). In order to reassure donors that their money has been well-spent and has made a measurable difference, quantitative indicators are required. Furthermore, an over-reliance on quantitative data may mean that the real essence of change is not recorded or understood. Thus, there is a considerable challenge not only in providing the aid system with the numbers it needs but also in ensuring that these numbers are both meaningful and practical to collect Hailey & James, (2023).

The classic mantra for Monitoring has been to develop Specific, Measurable, Achievable, Reliable and Time bound (SMART) indicators. Therefore, the drive for setting up Monitoring systems based only on easily measurable quantitative indicators has perhaps been one of the key reasons for the failure of Monitoring systems to contribute useful information for the management of development initiatives. Hence both qualitative and quantitative information are critical, yet an indicator driven approach to Monitoring often drives systems in the direction of quantitative information, yet it is often the qualitative information that is required for explanation, analysis and sound decision making (Woodhill, 2021).

However, although use monitoring information is multidimensional, it is common that ‘only direct instrumental use of findings and recommendations are regarded as “proper”; use’ (Williams *et al.*, 2022).

This means that development practitioners are failing to recognize the many dimensions of utilization and therefore doing evaluation a disservice. The picture would look a lot brighter if we accept the recommendation of the European Commission study that “the indirect use of evaluations including process use, indirect use and cumulative use – should be valued more

explicitly" (Williams *et al.*, 2022) This applicable to development organizations were priority is given to instrumental use of evaluations.

Studies on the relevance of evaluations and the degree to which they are utilized remain one of the most common topics in the literature (Patton, 2018). Indeed sharing and utilization of results remains a key challenge of development organizations including World vision.

Monitoring has special relevance for evidence-based policy, as it is specifically designed to test the effectiveness of particular approaches (O'Brien *et al*., 2020), one would expect that evaluation might be seen as central to evidence-based policy.

However, due to prevalence of 'evaluations that are rushed, poorly planned, poorly executed or poorly funded' (O'Brien *et al*., 2020). Many academics and perhaps policy makers regard evaluation as being lower in status than other forms of research informing policy (Guenther *et al*. 2020). This means that poorly designed and implemented Monitoring processes result into poor quality data that undermine confidence in results and utilization.

In addition to direct application of Monitoring findings on policy or practice, evaluations may change participants' awareness and attitudes (Gary & Mervin, 2023), potentially leading to future policy changes. Monitoring information is a source of knowledge capital for organization learning and innovation. Learning from monitoring can be used to improve the overall management and quality of results of ongoing and future programmes and strategies (Zephirin, 2021). Learning is particularly significant for development programmes as the context, needs of the targeted groups and beneficiaries are dynamic and constantly change.

Increasing impact of Monitoring information requires constructing pathways for the findings to make a difference within the organization. "Performing a good quality evaluation is only the first step. The lessons then have to be absorbed, taken forward, and implemented in practice before organizational learning can be said to have occurred (Stoddard, 2021). This underscores the fact the critical component of Monitoring is documentation of lessons and putting the lessons into practice.

Although, this argument is applicable to development programmes, the supply-side interventions will have little effect on utilization of Monitoring information, unless there is sufficient demand for quality impact evaluations. Demand for monitoring requires that quality monitoring are seen as an important policy and management tool in an organization.

As result of limited demand for Monitoring information in organizations; Jones and Mendizabal (2020) recommends need to increase the internal demand for evaluation information by moving from the general and abstract to focus on real and specific stakeholders and uses. This means that increasing demand for information in order to make management decisions will increase the demand for evaluations.

Organizations should harness participation both internal and external personnel to maximize utilization of evaluation for learning (Hallam, 2021). The involvement of insiders means that findings and recommendations are more likely to be appropriate. In addition, insiders are more likely to have a better understanding of the concerns of field personnel, and of their perspective on key issues; this has enormous benefit of retaining the experience and knowledge gained by those carrying out the evaluation.

2.4 Empirical studies

A study of Monitoring, Evaluation and Learning system on Comic Relief by Sam McPherson indicated that not all NGO explicitly link their MEL systems and what they require of them with their position in the aid chain. If they were to do this, it would support them to think more systematically about the differing roles of commissioning, intermediate and implementing NGOs with regards to MEL, and how MEL can be designed to help them evaluate how well they are playing their specific role. As the Homeless International example shows, understanding what data each party needs for their operations allows NGOs to focus more clearly on the data they will use (for strategic planning, future planning, programme management, donor reporting) rather than on the actual data collected.

A study conducted in Nairobi Kenya where data from 30 Non-Government Organizations was collected and analyzed, it established that the more the number of Monitoring staff the better the Monitoring Management. The study further found out that good governance structure, more funding for Monitoring and proper indicator definition impacted positively on the management of monitoring system.

Businge's study of Ugandan Rwenzori region (2020) found that donors rarely operate outside the log frame approach where they are boxed into results that are put in the project log frame and yet sometimes the situation on the ground might affect the achievement of some of the results hence requiring some aspects of the project to be changed. Therefore, any suggested

changes by the implementing organizations had to go through prolonged to and fro communication over the changes.

The monitoring systems in NGOs have difficulty receiving quality and timely data and information from other parts and levels of government. In many cases, because of limited budget and resources, organizations are dependent on others to provide data and rely on goodwill rather than explicit authority to encourage compliance. There is also lack Of sufficient numbers of skilled Monitoring personnel to gather required data and poor management information systems make storing and sharing data difficult CLEAR, (2023).

Institutional design considers evaluating consistency among project priorities, mission, strategic goals, strategic products, and their beneficiaries. Similarly, based on the foregoing, it evaluates the coherence of institutional structure and division of responsibilities between work units that make up the body or public agency. The aspects evaluated in institutional management relate to institutional capacity (professional, technological, organizational) and management mechanisms or procedures applicable and relevant to the organization, such as mechanisms for coordination and allocation of responsibilities; allocation mechanisms, funds transfer, payment procedures, and audits; and accountability and transparency in the use of resources, activities, monitoring tools, and targeting criteria, or selection of beneficiaries (Jackson, 2018; McMiniminee *et al*., 2020).

Link the centralized monitoring unit to subunits. The centralized unit should collaborate with monitoring units in other co-implementing institutions (e.g., extension agencies, research centers, private sector implementers, enterprise development centers) and in decentralized regions (e.g., province, district, and county level centers) where project activities take place or have influence (Jackson, 2018).

Zvoushe and Gideon (2023) analyzed the utilization of Monitoring Systems by Development Agencies, the Case of the UNDP in Zimbabwe. They examined the utilization of Monitoring Systems by international development agencies, using the UNDP in Zimbabwe as the case study. It does not have a standalone monitoring department. The study used documentary analysis and found that there is low note systematic use of evaluation findings from previous programmes while its evaluation approaches have a disturbing skew towards the quantitative. Such overly quantitative approaches carry the risk of sidelining the impact of contextual factors in development programmes and projects.

Ochieng, Paul, Ruth, and Kuto (2022) analyzed the effectiveness of monitoring of Constituency Development Fund *(*CDF) projects in Kenya. a case of the ainamoi constituency. The objective of the study was to look at the effectiveness of the monitoring process on CDF projects in Ainamoi constituency, Kenya. A case study research design methodology is used where the target population comprises of CDFC members, selected constituents, Project Management Committee (PMC), and District Development Officer (DDO). The results of the study showed that PMC, CDFC and external assessors are involved in monitoring of projects with minimal participation of constituents.

Kimweli (2023) analyzed the role of monitoring practices for the success of donor-funded food security intervention projects in Kenya. The purpose of the study was to find out the role of monitoring practices for the success of donor-funded food security intervention projects. The study targeted residents of Kibwezi district who have benefited from donor-funded food security projects. The study utilized a case study design because it was considered a robust research method particularly when a holistic and in-depth investigation is required. A sample of 40 respondents was selected from four Locations; Makindu, Nzambani, Masongaleni and Mtito Andei; from the larger Kibwezi district through purposive sampling. Data was collected through a questionnaire with 10 questions where respondents indicated responses on statements on a Likert scale. Data from Semi-structured interviews with key informants focused discussion groups and the government officers who had been involved in these projects were used for triangulation. Quantitative data collected were analyzed using MS Excel 2020. The study established that the community was not involved in any monitoring of the food security intervention projects. The findings of the study indicated that food security project implementing agencies to recognize the role played by participatory monitoring practices in the success and management of the projects.

Management influence on Monitoring is minimal, personnel training on monitoring and stakeholder's involvement on Monitoring systems has not fully taken course on projects. Concern about absence of effective approaches in assessing Monitoring systems has been raised. Proposals made in Projects have gone through the cracks, with no lasting solution given. Factors such as stakeholders‟ participation have been substituted with ready availability of funding, with assumption that the locals‟ views may not have an impact to the project successes.

The structural arrangements of Monitoring system are important from a number of perspectives; one is the need to ensure objectivity, credibility and rigor of the Monitoring information that the system produces Mackay, (2016). Khan, (2023), concurs that the conceptual design of Monitoring system is supposed to address issues with regard to the objectives of the system, competent authority, credibility of information, its management, dissemination and recycling into the planning process with special emphasis on community participation. Monitoring systems should be built in such a way that there is a demand for results information at every level that data are collected and analyzed. Furthermore, clear roles, responsibilities, formal organizational and political lines of authority must be established Kusek & Rist, (2024). There is often a need for some structural support for Monitoring, such as a separate evaluation unit which at the very least needs one person who is the internal champion identified to make sure the system is implemented and developed. Moreover, the systems must be consistent with the values at the heart of the organization and work in support of the strategy.

There are twelve components of a functional monitoring namely: structure and organizational alignment for Monitoring systems; Human capacity for Monitoring systems; Monitoring partnerships; Monitoring plans; Costed Monitoring work plans; Advocacy, communication and culture for Monitoring systems; Routine monitoring; periodic surveys; Databases useful to Monitoring systems; Supportive supervision and data auditing; Evaluation and research; and using information to improve results UNAIDS, (2018). Taut, (2017) study, "self- evaluation capacity building in a large international development organization", indicate low organizational readiness for learning from evaluation. Moreover, interviewees similarly described a lack of open, transparent and critical intra-organizational dialogue and a lack of formal structures and processes to encourage reflection and learning as an organizational habit. At the same time, there was rather high awareness of the potential for evaluation to be used as a tool for learning and demand voiced for such evaluations.

2.5 Research gap

Despite the recognized importance of effective monitoring practices in project management, significant gaps remain in the literature that warrant further investigation.

Theoretically, while previous studies have highlighted the necessity of monitoring in project management, they have not sufficiently explored the specific components—such as monitoring structure, data quality, and methods—that contribute directly to project success. For instance,

Kusek and Rist (2024) emphasized the need for structural support for monitoring but did not delve into how these structures can be effectively aligned with organizational strategies to enhance project outcomes. This gap presents an opportunity to examine how different aspects of monitoring can be optimized to improve project management, particularly in donor-funded projects like the Biyoole initiative in Hargeisa, Somalia. The current study aims to fill this theoretical gap by investigating the applicability of program theory to organizational learning and the contribution of monitoring components to project management.

Methodologically, existing research has often relied on outdated data and methods that do not reflect the current realities of project management. Many studies reviewed were based on historical events and did not incorporate data or events beyond 2021. Furthermore, the research designs used in these studies vary significantly across different geographical locations, making it difficult to draw consistent conclusions. This study addresses the methodological gap by employing contemporary data and rigorous research methods tailored to the Biyoole project, ensuring that the findings are relevant to the current context of project management in Somalia.

Conceptually, while monitoring is widely acknowledged as a critical element of project management, there is limited understanding of how monitoring systems influence the management of agro-pastoral projects in African contexts. Kusek and Rist (2024) suggested that organizational values must align with monitoring systems, yet few studies have explored this alignment in depth. Similarly, UNDP (2021) and Taut (2017) have discussed challenges related to limited organizational capacities for monitoring but did not provide a comprehensive analysis of how these challenges impact project outcomes. This study seeks to bridge this conceptual gap by exploring the role of monitoring systems, particularly regarding their alignment with organizational strategies and capacities in the Biyoole project.

Contextually, most research on project monitoring has focused on regions outside Somalia, particularly countries like South Africa (Nkandu, Rodrigo, & Alberto, 2020) and Kenya (Majanja, 2022). These studies often examined variables such as resource allocation and public-private partnerships but did not focus on the impact of monitoring practices within Somalia's socio-political environment. Additionally, while Majanja (2022) highlighted funding constraints as a barrier to managing infrastructure projects, the role of monitoring in overcoming these constraints was not explored. This study fills the contextual gap by concentrating specifically on the Biyoole project in Hargeisa, Somalia, offering valuable insights into how monitoring influences project management in this unique context.

In conclusion, this study addresses the identified theoretical, methodological, conceptual, and contextual gaps by providing empirical evidence on the contribution of monitoring practices to project management in Somalia's Biyoole project. It also examines the moderating role of resources for monitoring, which has been largely overlooked in previous studies.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology that was used during the study. It involves the Research design, study population, sample size and selection, sampling techniques, data collection methods, Data collection instruments, procedure of data collection, Reliability and validity of instruments, Data analysis plus measurement of variables.

3.1 Research design

The study employed a descriptive correlational research design to analyze the respondents at the Biyoole Project in Hargeisa, Somalia. This design was chosen for its ability to provide a structured understanding of the problem, as asserted by Ghauri and Gronhaug (2021). According to Mugenda and Mugenda (2016), descriptive design is particularly effective because it reports on phenomena as they actually are, offering a clear picture of the current state of the project. The correlational aspect of the design was utilized to measure the relationship between two variables—project monitoring and management practices—within the Biyoole Project. Both qualitative and quantitative approaches were incorporated in this study. The quantitative approach was essential for collecting and analyzing data related to project management, allowing for a broader study with a larger sample size, which enhances the generalizability of the results. In contrast, the qualitative approach provided depth and detail, capturing attitudes, feelings, and behaviors related to the management of the Biyoole Project. This approach goes beyond mere numerical analysis, offering insights into the more nuanced aspects of project management.

The descriptive correlational design was particularly suited to this study because it allowed for a comprehensive examination of how project monitoring influences the management of agro-pastoral industries in the context of the Biyoole Project.

3.2 Study population

The study population for this research consisted of individuals involved in the Biyoole project in Hargeisa, Somalia, as outlined in the August 2020 UNDP Assessment report. This program engaged a total of 260 participants, including top authorities who oversee project implementation,

project staff responsible for daily operations, project managers tasked with planning and execution, and project beneficiaries who directly receive the benefits of the initiative. According to Amin (2021), the target population is the group to which the researcher ultimately intends to generalize the findings. Therefore, this study focused on these 260 participants to gain insights into the monitoring practices and project management of the Biyoole initiative (UNDP, 2020).

3.3 Sample size

This refers to the number of items being selected from the universe to constitute a sample (Kothari, 2024). However from the population of 260 respondents, a sample size of 158 respondents was selected basing on a formula for determining Sample size by Yamane (Yamane, 2020). Respondents included; Top authorities of Biyoole project, Project staff, Project managers and Project beneficiaries with knowledge about the topic of study.

The Sloven's formula (1978) was used to determine the minimum sample size. Formula is illustrated below-

$$n = \frac{N}{1 + N(e)^2} = \frac{260}{1 + 0.65} = 158$$

Where

n - Sample size

N - Population size

e - Level of precision

3.4 Sampling selection techniques and procedure

The study used both simple random sampling and purposive sampling procedures. Purposive sampling was used to select different activities in the area of investigation in order to get first-hand information from the key informants. Availability sampling was used because respondents have equal chances of being selected. The sampling process was guided by table below;

Table 3.1: Sampling procedures

SN	Category	Population	Sample	Sampling procedure
1	Top authorities of Biyoole project	**25**	**15**	Purposive sampling
2	Project staff	**115**	**70**	Purposive sampling
3	Project managers	**20**	**12**	Purposive sampling
4	Project beneficiaries	**100**	**60**	Availability sampling
	Grand Total	**260**	**158**	

Source: UNDP Assessment Report, August 2020.

3.5 Data sources

The researcher used primary data collection methods were used to collect relevant data to the study. Primary data was collected from the respondents through interviews, and self-administered questionnaire. Primary data are important in answering questions about this study topic. Data collection methods were considered in such a way so that relevant information was collected as much as possible with little inconvenience to respondents.

3.6 Data Collection instruments

3.6.1 Questionnaires

The main instrument of data collection was a questionnaire. According to Sotirios Sarantakos (2021), a questionnaire is a method of survey data collection in which information was gathered through oral or written questionnaires. The questions involved the feelings of respondent groups regarding project monitoring and evaluation and project management. The questionnaire also aimed at getting responses from the respondents about their views on project management and how it could be improved.

3.6.2 Interview guide

The researcher also used interview guide to collect data. The researcher further interviewed the respondents on a few responses that required further clarifications. The questions for the interview were both open-ended and closed and they were 9 in number. The open-ended questions gave chance to more discussions, while the closed questions were asked for particular

responses. The interview method helped to collect additional views from respondents on the theme of the study.

3.7 Validity and reliability of instruments

3.7.1. Validity

Validity refers to the degree to which results obtained from analysis of the data actually represents the phenomenon under study. The validity of the research instrument was determined by pre testing. Mugenda and Mugenda (2021) assert that pre testing ensures clarity and accuracy of results so that data collected gives meaningful, reliable results representing variable in the study. Pre-testing helps to estimate the time needed to take, to fill the questionnaires, pre-testing was done by administering to ten (10) respondents within the study population but outside the sample. Questionnaires were scrutinized by five colleagues at the University for their Peer Opinion on content and accuracy. Results from the field and opinion of colleagues helped identify gaps and make modifications to the instruments where necessary. The supervisor was also notified accordingly.

The formula that was used to calculate the validity of the instrument is

$$CVI = \frac{\text{no of items declared valid}}{\text{total no of items}}$$

CVI $=\frac{33}{35}$ *100% =94.3% therefore the instrument was valid since the CVI was above 70%.

3.7.2 Reliability

Reliability is the degree to which an assessment tool produces stable and consistent results. The reliability of the questionnaire was tested by using the Cronbach's alpha coefficient. Cronbach's Alpha coefficient was used to measure reliability of the instruments.

Cronbach's alpha was also used to determine the reliability of the instruments. A Cronbach's alpha value of 0.70 and above is considered to be the criteria for demonstrating internal consistency of new scale and established scales respectively.

Reliability Statistics	
Cronbach's Alpha	N of Items
.826	33

Therefore, the instrument was reliable since the Cronbach Alpha's value was 0.826 which is above 0.75.

3.8 Research procedures

The researcher first got a letter of introduction from the faculty. Permission was also got by the researcher from the respondents to be sampled in to allow for the relevant data to be collected. The researcher kept confidential of all respondents while presenting the findings.

3.9 Data analysis

The quantitative data involved information from the questionnaires only. Data from the field was too raw for proper interpretation. The raw data obtained from questionnaires was cleaned, sorted and coded. The coded data was entered into the Computer, checked and statistically analysed using the Statistical Package for Social Scientists (SPSS) software package to generate descriptive and inferential statistics Descriptive analysis was applied to describe the primary variable and associated indicator items related to the study objectives. The frequency tables were for bio data of study while regression analysis was for all the objectives.

3.10 Ethical considerations

It is important during the process of research for the researcher to make respondents to understand that participation is voluntary and that participants are free to refuse to answer any question and to withdraw from participation any time they are chosen.

Another important consideration, involves getting the informed consent of those going to be met during the research process, which involved interviews and observations on issues that may be delicate to some respondents. The researcher undertakes to bear this seriously in mind.

Accuracy and honesty during the research process is very important for academic research to proceed. A researcher should treat a research project with utmost care, in that there should be no temptation to cheat and generate research results, since it jeopardizes the conception of the research.

3.11 Limitations of the study

This study faced several limitations that may have affected its findings. First, the researcher was not involved in the project design, which meant that the accuracy of the information provided by project managers could not be fully verified. This lack of direct engagement may have led to biases in the data collected, as project managers might have presented information that highlighted their achievements while minimizing challenges.

Second, the geographical spread of the Biyoole project across Hargeisa posed significant logistical challenges for data collection. Many project sites and beneficiaries were located in different areas, making it difficult to conduct on-site visits and interviews. While the researcher planned to use research assistants to aid in data collection, their involvement may have limited the opportunity for in-depth interactions with participants, potentially affecting the richness of the data.

Third, some project managers were hesitant to share detailed information about the progress of their projects. This reluctance could have stemmed from concerns over accountability or the desire to maintain a positive image of the project. Consequently, this lack of transparency might have limited the completeness and accuracy of the information gathered, impacting the study's ability to draw comprehensive conclusions.

Finally, external factors such as political instability or logistical constraints in Hargeisa could have influenced the execution of the study. Events beyond the researcher’s control may have disrupted data collection efforts or affected participant availability. Acknowledging these limitations is essential for understanding the context of the findings and their implications for project management practices in the region.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the data collected from primary sources as well as the analysis, interpretation and discussion of findings, with reference to study objectives and related literature.

4.1. Response rate

The study sought to determine the response rate and the findings were as shown in Table 4.1.

Table 4.1. Showing response rate

	Frequency	**Percentage** (%)
Returned	127	80
Not returned	31	20
Total	**158**	**100**

Source: Primary Data (2024)

The finding in table 4.1 showed that out of 158 questionnaires that were distributed to Top administrators of Biyoole project, Hargeisa, Projects managers, Projects staff and Projects beneficiaries; 127 respondents completely filled in and returned the questionnaires, this represented a 80% response rate. This is a reliable response rate for analysis as Mugenda and Mugenda (2023) showed that 50% of response rate is sufficient for analysis and presentation of the data, 60% is reliable and 70% of response rate and over is excellent. However, 20% of the respondent were reluctant to responded to fill the questionnaire this was due to reasons like, the respondent were not available to fill them in at the required time and even after subsequent follow-up there were no positive reactions from them.

4.2 Description of respondents' background information

The section focuses on the aspects of gender, age, and level of education filled on the questionnaire.

4.2.1 Gender of the respondents

Respondents were asked to indicate their gender. This sought to ensure proportionate representation in the study by both the male and female respondents. Data collected is presented in table 4.2 below.

Table 4.2: Gender of respondents

Response	Frequency	Percentage
Male	86	68
Female	41	32
Total	**127**	**100.0**

Source: Primary Data (2024)

The responses shows that 86 (68%) respondents were male and the 41 (32%) were females. This shows that the number of males were higher than that of females. This shows that there is gender discrimination in the study area.

4.2.2 Age of the respondents

Respondents were asked to indicate their ages. In this study, age of respondents was categorized as follows; 19-25 yrs, 26- 30 yrs, 31-45 yrs and 46 and above

Table 4.3: Age of respondents

Response	Frequency	Percentage
19-25 yrs	59	46
26- 30 yrs	44	35
31-45 yrs	17	13
46 and above	7	6
Total	**127**	**100.0**

Source: Primary Data (2024)

The responses from the above table shows that 59 (46%) were between 19-25 and 26-30 was 44 (35%) and 31-45 years 20 the last category 46 and above were 7(6%). This shows that most

respondents were between 20-35. This further shows that the majorities of the respondents were middle aged adults and thus had proper understanding of the impact of monitoring on project management of Biyoole project in Hargeisa, Somalia.

4.2.3 Marital status

Data was collected from the respondents about their marital status which was in the types of the married, single, widow and divorced.

Table 4.4: Showing marital status

Response	**Frequency**	**Percentage**
Single	56	44%
Married	43	34%
Widow	17	13%
Divorced	11	9%
Total	**127**	**100**

Source: Primary Data, 2021

The findings from Table 4.4 shows that out of the 127 respondents, 56(44%) of the respondents reported being single, 43(34%) reported being married, 17(13%) reported being Widow, 11(9)% were divorced. The findings inculcated that all the categories of the respondents were all covered in regard to their Marital Status and the majority of the respondents were Single because they secured the highest percentage (44%).

4.2.3 Education level of respondents

Respondents were asked to indicate their education level. This was aimed at enabling the researcher to describe the level of education of the respondents which could also affect study variables. In this study, level of education was categorized into; Certificate, Diploma, Bachelors degree and Other.

Table 4.5: Respondents level of education

Response	Frequency	Percent
Certificate	17	13%
Diploma	44	35%
Bachelor degree	53	42%
Master degree	7	6%
Other	6	5%
Total	**127**	**100.0**

Source: Primary Data (2024)

The responses from above table indicate that 20(13%) were of certificate holders, 55 (35%) were Diploma holders, 66(42%) were at Bachelor level, 9 (6%) were of Master holder and lastly only 8(5%) were categorized has others such has tertiary. This shows that most respondents were university level. This further shows that most of them had proper understanding of the impact of monitoring on project management of Biyoole project in Hargeisa, Somalia.

4.2.4 Years of experience

Respondents were asked to indicate their education level. This was aimed at enabling the researcher to describe the level of education of the respondents which could also affect study variables. In this study, level of education was categorized into; Less than 3 years, 3 to 9 years, 10 to 12 years, and Above 12 years.

Table 4.6: Respondents years of experience

Response	Frequency	Percent
Less than 3 years	16	13
3 to 9 years	53	42
10 to 12 years	44	35
Above 12 years	14	11
Total	**127**	**100.0**

Source: Primary Data (2024)

The results in table 4.6 above shows that in order to conduct research that is reliable, the researcher took an initiative to take more respondents who are experienced basing on the number of years they been involved in Biyoole project. It was seen that respondents who had worked within Biyoole project for less than 3 years were 16 representing 13%. Those who had worked for the organization for 3-9 years were 53 representing 42% and those who had worked for 10-12 years were 44 representing 35% and above 12years were 14 respondents representing 11% and 16% respectively. This further shows that most of them had proper understanding of the impact of monitoring on project management of Biyoole project in Hargeisa, Somalia.

4.3 Description of independent variable: Project communication (n=127)

This section presents the description of the independent variable using means and standard deviation. According to the conceptual framework (Figure 2.1), the Independent variable in this study was based on the study objectives in terms of 3 constructs (i.e. Monitoring structure, Monitoring Methods and Data quality) among employees in Biyoole project. Thus section B of the questionnaires was devoted to the Independent variable.

4.3.1. Findings on the effect of monitoring structure on management of Biyoole project in Hargeisa, Somalia

Objective number one of the study was to examine effect of Monitoring structure on management of Biyoole project in Hargeisa, Somalia. Several questions were asked in this regard. The responses are in respect of this question as shown below:

Table 4.7: Showing Responses about the effect Monitoring structure on management of Biyoole project in Hargeisa, Somalia.

Response	**N**	**Mean**	**Std. Deviation**	**Interpretation**
Top management has a positive attitude towards strengthening the monitoring system.	127	3.35	1.830	Very Good
The organization has a well-defined structure that includes a monitoring unit	127	3.05	1.746	Good
The organization conducts assessment of the overall management of monitoring system on a regular basis	127	2.78	1.667	Good
The organization has a policy or set standards in place describes roles and responsibilities of the operation of monitoring System.	127	2.46	1.568	Poor
The organization has got a 'champion' for the monitoring exercises	127	3.27	1.288	Very Good
Average Mean		**2.98**		**Good**

Source: Primary Data 2024

The following mean ranges were used to arrive at the mean of the individual indicators and interpretation:

For the effect between Monitoring structure on management of Agro pastoral industries Biyoole project in Hargeisa, Somalia.

Mean Range	**Response Mode**	**Interpretation**
3.51-4.25	Strongly agree	Very good
3.26-3.50	Agree	Good

2.51-3.25	Neutral	Moderate
1.76-2.50	Disagree	Poor
1.00-1.75	Strongly disagree	Very poor

Results in table 4.7 indicated that the effect between Monitoring structure on management of Agro pastoral industries, Biyoole project in Hargeisa, Somalia was rated good and this was indicated by the overall mean of 2.98, implying that there is a formalized system intended to help the Biyoole project on how plans are drawn after consulting the members. And Top management has a positive attitude towards strengthening the monitoring system and this was indicated by the average mean of 3.35, implying that the Biyoole project managers major responsibility is to build supportive social networks. The organization has a well-defined structure that includes a monitoring unit this was indicated by the average mean of 3.05 this further shows that the organization has a well-defined structure that includes a monitoring unit.

Still results in table 4.7 indicated that the organization conducts assessment of the overall management of monitoring system on a regular basis this was rated good with an average mean of 2.78, this implies that the Biyoole project Monitoring structure circulates through the project management teams which is helpful to the way of increasing its effectiveness.

Results indicated that the organization has a policy or set standards in place describes roles and responsibilities of the operation of monitoring System and this was rated poor (mean=2.46), this therefore implies that Project managers handling the Biyoole project are not mindful of any policy or set standards in place describes roles and responsibilities of the operation of monitoring System.

Results however indicated that The organization has got a ‘champion’ for the monitoring exercises and this was rated very good (mean=3.27), this implies that The organization has got a ‘champion’ for the monitoring exercises by respondents of selected Agro pastoral industries, Biyoole project operating in Hargeisa, Somalia.

These findings illustrate the effectiveness of the monitoring structure in managing the Biyoole Project, aligning with the Logic Model’s emphasis on systematic planning and evaluation. The positive ratings for top management’s attitude and the presence of a monitoring unit reflect the successful application of the Logic Model's principles, showing that well-defined inputs and activities lead to desired outcomes. Conversely, the lower rating for policy standards highlights

a gap in control mechanisms, which Control Theory identifies as critical for maintaining effective feedback loops and adaptive management. Thus, while the Logic Model supports the project's structured approach, Control Theory underscores the need for enhanced control mechanisms to fully optimize project management.

Interview responses;

Regarding monitoring structure towards management of Agro pastoral industries, Biyoole project, Hargeisa, Somalia, According to one of the Project Supervisor said that….,

> *...Since everyone has their own views on the project of Agro pastoral industries, Biyoole project culture of capital, these ideas are facts that everyone needs to share and experience on it. The expectation of the project office is to let people understands about the objective of the program that can be achieved by sharing ideas in different ways. (KII$_1$, Project Manager, 2023)*

More so according to one of the project coordinator she said that;

> *Monitoring (monitoring) are tools employed to assess the relationships of intentions versus actions, actions versus outcomes and outcomes versus impacts. However, the most important yet quite often the most neglected aspect of monitoring is feedback. It is the feedback of lessons learned through monitoring that assists in correcting current mistakes to improve future decisions. (KII$_2$, Project Supervisor, 2023)*

More so according to one of the project manager he said that;

> *Good monitoring systems for civil society programs as ones which are: dynamic, participative, reflective and evolving. First, dynamic systems encourage `practical learning and promote regular ways of seeking dynamic feedback from multiple sources about the benefits, problems and impacts of the intervention. (KII$_3$, Project Manager, 2023)*

4.3.2 Findings on the influence of data quality on management of agro pastoral industries, Biyoole project, Hargeisa

Objective number two of the study was to examine the influence of data quality on management of Biyoole project, Hargeisa the responses in this area are presented, analyzed and discussed below:

Table 4.8: Response on the influence of communication on management of Biyoole project, Hargeisa

Response	N	Mean	Std. Deviation	Interpretation
Monitoring system owned by users is likely to generate reliable information	127	3.27	1.808	Very Good
Data collected when measured reports on outputs that reflect the critical stated objectives of the organization	127	3.21	1.792	Good
Good system identifies key issues as well as root of problems that the organization wants to address	127	2.93	1.711	Good
Data collection activities conducted legally with due regard to the welfare of those affected by its results	127	2.18	1.476	Poor
Frequently collected data enables to truck trends as well as understand project intervention	127	2.87	1.694	Good
Data collected provides clear indicators against	127	3.10	1.761	Good
Average Mean		**2.93**		**Good**

Source: Primary Data 2024

The following mean ranges were used to interpret the means:

For the influence of data quality on management of Agro pastoral industries Biyoole project, Hargeisa, Somalia

Mean Range	Response Mode	Interpretation
3.51-4.25	Strongly agree	Very good
3.26-3.50	Agree	Good

2.51-3.25	Neutral	Moderate
1.76-2.50	Disagree	Poor
1.00-1.75	Strongly disagree	Very poor

From table 4.9 with respect to the influence of data quality on management of Agro pastoral industries, Biyoole project, Hargeisa, this rated good and this was indicated by the overall average mean of 2.93, hence implying that data quality are used effectively for the good management of the project hence leading to the effectiveness of its activities. Results in table 4.9 indicated that Monitoring system owned by users is likely to generate reliable information and this was rated very good and indicated by the mean of 3.27, which implies that Data quality in Biyoole project is highly maintained in the project. And this becomes an advantage to the management of Agro pastoral industries, Biyoole project monitoring its activities.

Results further indicated that Data collected when measured reports on outputs that reflect the critical stated objectives of the organization and this was rated good (mean=3.21), this implied that Data quality being effective within the working group in the construction industry in Somalia hence making projects more effective and a success.

More so Good system identifies key issues as well as root of problems that the organization wants to address was ranked as good (mean=2.93), however this indicates that since Good system identifies key issues as well as root of problems that the organization wants to address within the project hence leading to better management of the Biyoole project.

Results further indicated that Data collection activities conducted legally with due regard to the welfare of those affected by its results was rated poor (mean=2.18), however this implies that the respondents didn't agree that Data collection activities conducted legally with due regard to the welfare of those affected by its results.

More so the operations in Biyoole project involve the team effort of clients, quantity surveyor, architect, consulting engineer and project specialists is strengthen by the data quality and was rated good as (mean=2.87), this showed that effective operations in Biyoole project involve the team effort of clients, quantity surveyor, architect, consulting engineer and project specialists is strengthen by the data quality

Results further indicated that Data collected provides clear indicators against was rated good (mean=3.10), however this implies that Data collected provides clear indicators against has led on the effectiveness of Biyoole project in Hargeisa, Somalia.

These findings reflect the significance of data quality and communication in managing the Biyoole Project, aligning with Control Theory's emphasis on feedback and system regulation. The positive ratings for data quality and its role in generating reliable information, tracking trends, and identifying key issues indicate that the project effectively utilizes data for management purposes. However, the poor rating for legal and ethical data collection practices highlights a gap in adherence to Control Theory's principles of accountability and feedback. This suggests that while the project demonstrates effective data use in many areas, improving compliance with legal and ethical standards is crucial for optimizing overall management and decision-making processes.

Interview Response

Regarding a more understanding on the data quality influence towards management of Agro pastoral industries, Biyoole project, Hargeisa –Somalia, According to one of the Project Manager said that,

> *..To keep up the pace and to work with the idea of co-creation and a level of participation from team members, so that everyone can communicate in the project". We believe data quality play a key role internally and externally to speed-up our day-to-day activities. (KII_1, Project Manager, 2023)*

Furthermore one of the project managers interviewed agreed that….

> *The source of management data is important to the credibility of reported results hence, it is important to incorporate data from a variety of sources to validate findings. Furthermore, while primary data are collected directly by the monitoring system for monitoring purpose. (KII_2, Project Supervisor, 2023)*

4.3.3 Effect of monitoring methods on management of Agro pastoral industries, Biyoole project in Hargeisa, Somalia.

Objective number three of the study was to establish the effects of Monitoring Methods on management of Biyoole project in Hargeisa, Somalia. Several questions were asked and the responses are summarized, analyzed and interpreted below:

Table 4.9: Shows the effect of monitoring methods on management of Agro pastoral industries, Biyoole project in Hargeisa, Somalia.

RESPONSE	N	Mean	Std. Deviation	Interpretation
The logical frameworks clearly indicates the proposed impact of the programme	127	3.27	1.808	Very Good
The logical frameworks provides the intended outcomes of the programme.	127	3.21	1.792	Good
The logical frameworks provides the intended outcomes of the programme.	127	2.82	1.679	Good
The logical frameworks provides the planned outputs of the programme	127	2.18	1.476	Poor
The logical frameworks clearly defines the indicators to track progress of the programme.	127	2.87	1.694	Good
Funding is a key factor on management of the monitoring system	127	2.99	1.54	Good
Monitoring Methods has provided technical support and guidance to project staff of Agro pastoral industries of Biyoole project	127	2.82	1.679	Good
Monitoring Methods are recognized to be a significant, but complex, multidimensional predictor of job satisfaction in Agro pastoral industries of Biyoole projects	127	2.18	1.476	Poor
Average Mean		**2.79**	**1.49**	**Good**

Source: Primary Data 2024

The following mean ranges were used to arrive at the mean of the individual indicators and interpretation:

For the Effect of Monitoring Methods on management of Biyoole project in Hargeisa, Somalia.

Mean Range	**Response Mode**	**Interpretation**
3.51-4.25	Strongly agree	Very good
3.26-3.50	Agree	Good
2.51-3.25	Neutral	Moderate
1.76-2.50	Disagree	Poor
1.00-1.75	Strongly disagree	Very poor

From table 4.8 with respect to the effect of Monitoring Methods on management of Biyoole project in Hargeisa, Somalia, this rated good and this was indicated by the average mean of 2.79, hence implying that Monitoring Methods are carried out and always assessed well in order to improve project effectiveness. The logical frameworks clearly indicates the proposed impact of the programme (mean=3.27), this was rated very good implying that Monitoring Methods has clarified project tasks, created teamwork and got all stakeholders involved in the running of the Project. The logical frameworks provides the intended outcomes of the programme (mean=3.21), this was rated good thus this implies that The logical frameworks provides the intended outcomes of the programme hence leading to effectiveness of project communication in projects, more so this means that the use Monitoring Methods in the project still continues to be a very essential aspect of the project.

The logical frameworks provides the intended outcomes of the programme and this was rated good by the average mean of 2.82, thus this indicates that that Monitoring Methods has to a very large extent been used to determine the level of management at work in the company, thus implying that most project managers operating in different projects in Hargeisa have relied on Monitoring Methods to help them in the effective running of the project.

However the results also shown that The logical frameworks provides the planned outputs of the programme and was rated poor with a mean of 2.18 and this indicated that respondents don't agree that The logical frameworks provides the planned outputs of the programme hence declining in the level of commitment of workers in Biyoole project.

More so for the issue of The logical frameworks clearly defines the indicators to track progress of the programme, this was rated good by the average mean of 2.87, this implies that Monitoring Methods has imposed increased responsibilities that have made the construction job more valuable and important in Hargeisa.

Furthermore from the results it showed that Construction staffs with more work experience have more respect for their jobs, can apply their experience to their jobs, and are skilled and successful in doing their jobs with a mean (2.99) and this was rated Good, hence implying that Construction staffs with more work experience have more respect for their jobs thus a significant effectiveness towards project management.

Monitoring Methods has provided technical support and guidance to project staff of Biyoole project with a mean (2.82) and this was rated good implying that Monitoring Methods has provided technical support and guidance to project staff.

Lastly results above indicated that Monitoring Methods are recognized to be a significant, but complex, multidimensional predictor of job satisfaction in Biyoole projects with a mean (2.18) and this was rated poor hence implying that the respondents didn't agree that Monitoring Methods are recognized to be a significant, but complex, multidimensional predictor of job satisfaction in Biyoole projects.

These findings demonstrate the mixed effectiveness of monitoring methods on the management of the Biyoole project. The high ratings for the logical framework's ability to clarify project impact and intended outcomes reflect its utility in structuring and guiding project activities, aligning with the principles of Monitoring and Evaluation (M&E) Theory. This theory emphasizes the importance of clear frameworks and indicators in tracking and assessing project performance.

However, the lower ratings for aspects such as defining planned outputs and predicting job satisfaction highlight areas for improvement. These results suggest that while monitoring methods are generally effective, there are challenges in applying these methods consistently and in meeting all project requirements. The feedback from interviews further supports the idea that, while monitoring frameworks like the Logical Framework are crucial for project success, issues such as untrained personnel and the need for clear communication and guidance can impact their effectiveness.

Interview Response

Regarding a more understanding on the Monitoring Methods towards management of Biyoole project, Hargeisa –Somalia, According to one of the Project Manager said that,

> *We have to solve the problems of the society when we say that, we will support all the stakeholders who wants to do a job. Monitoring Methods*

creates common attitude towards something, I believe the monitoring within the office is large since we are very big organization. (KII$_1$, Project Manager, 2023)

More so another staff member said that:

…logframe matrix is a tool for summarising the key features of a programme and is best used to help programme designers and stakeholders to develop a common understanding of the expectation of a programme by delineating a hierarchy of aims. In addition, the logframe matrix defines indicators of success and establishes the criteria for monitoring. (KII$_2$, Project Supervisor, 2023)

Another staff member replied about Monitoring Methods he said the following statement:

Monitoring carried out by untrained and inexperienced people is bound to be time consuming, costly and the results could generated prove impractical and irrelevant. Therefore, this will definitely impact the success of projects. (KII$_3$, Project Manager 2023)

More one of the Project Managers averted that:

Monitoring methods like the Logical Framework has the power to communicate the essential elements of a complex project clearly and succinctly throughout the project cycle. It is used to develop the overall design of a project, to improve the project implementation monitoring and to strengthen periodic project evaluation. It provides a set of interlocking concepts, which are used as part of an iterative process to aid structured and systematic analysis of a project or programme idea (KII$_4$, Project Supervisor, 2023)

4.4 Description of dependent variable: project management

According to the conceptual framework (figure 2.1), Project Management was measured in terms of 3 constructs with each contributing items in the data collection instrument (i.e. questionnaire on Project Management, section C, (appendix I). The constructs are Timeliness,

Number of deliverables achieved and Cost of project. This is followed by presentation of findings from qualitative data to corroborate the quantitative findings.

Table 4.10: Gives statistics (i.e. means) on staff self-rating on Project Management

PROJECT MANAGEMENT	N	Mean	Std. Deviation	Interpretation
All staff get feedback after measurement of project activities	127	3.27	1.808	
The project has adequate capacity to commission evaluations	127	3.21	1.792	Very Good
The project has adequate capacity to conduct evaluations	127	2.82	1.679	Good
There exists a management information system or database to frequently provide data	127	2.18	1.476	Good
Overall monitoring systems meet the information needs of staff	127	2.87	1.694	Poor
The project has essential tools or equipment for data management	127	3.10	1.761	Good
The project monitoring materials that are available target different audiences	127	2.87	1.694	Good
The project monitoring materials that are available support data sharing	127	3.10	1.761	Good
The project monitoring materials are available for use	127	2.93	1.711	Good
Average mean		**2.60**	**1.49**	**Good**

Source: Primary Data 2024

The following mean ranges were used to interpret the means:

Mean Range	Response Mode	Interpretation
3.51-4.25	Strongly agree	Very good
3.26-3.50	Agree	Good
2.51-3.25	Neutral	Moderate
1.76-2.50	Disagree	Poor
1.00-1.75	Strongly disagree	Very poor

From table 4.10 with respect to the dependent construct that is project managements, this rated Good and this was indicated by the overall average mean of 2.60, hence implying that project managements of Biyoole project is effectively done. Results in table 4.8 indicated that all staff gets feedback after measurement of project activities and this was rated very good and indicated by the mean of 3.27, which implies that projects are finished in time.

Results further indicated The project has adequate capacity to commission evaluations and this was rated good (mean=3.21), this implied that Project the finishing projects are finished at the agreed cost hence indicating that the stakeholders are trustworthy.

More so The project has adequate capacity to conduct evaluations was ranked as good (mean=2.82), however this indicates that the delivering of a project to the agreed scope makes the beneficiaries happy and proficient of Biyoole project.

Results further indicated that there exists a management information system or database to frequently provide data was rated poor (mean=2.18), however this implies that that There exists a management information system or database to frequently provide data was weak in response hence ineffectiveness of Biyoole project in Hargeisa, Somalia. More so Overall monitoring systems meet the information needs of staff and was rated good as (mean=2.87), this showed that effective Overall monitoring systems meet the information needs of staff has made Biyoole project a success when conducting project meets needs of users of these projects.

Results further indicated that the project has essential tools or equipment for data management was rated good (mean=3.10), however this implies that the project has essential tools or equipment for data management of Biyoole project in Hargeisa, Somalia. More so The project monitoring materials that are available target different audiences and was rated good as (mean=2.87), this showed that the project monitoring materials that are available target different audiences has made Agro pastoral industries Biyoole project a success when conducting project.

Results further indicated that the project monitoring materials that are available support data sharing was rated good (mean=3.10), however this implies that that there is effective The project monitoring materials that are available support data sharing Biyoole project in Hargeisa, Somalia. More so the project monitoring materials are available for use and was rated good as

(mean=2.93), this showed that the project monitoring materials are available for use thus involvement of the project in the conformity of the project; it helps to improve on gauging the success and overall progress of the project.

4.5 The effect of monitoring structure on management of Agro pastoral industries Biyoole project in Hargeisa –Somalia

Table 4.11: Results of the effect of monitoring structure on management of Agro pastoral industries Biyoole project in Hargeisa, Somalia

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623[a]	.388	.381	.49354

a. Predictors: (Constant), Project Monitoring structure

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.874	1	13.874	56.956	.000[a]
	Residual	21.922	126	.244		
	Total	35.796	127			

a. Predictors: (Constant), Project Monitoring structure

b. Dependent Variable: Management of Biyoole project

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.103	.244		4.513	.000
	Project Monitoring structure	.629	.083	.623	7.547	.000

a. Dependent Variable: Management of Biyoole project

Source: Primary Data 2024

Regression analysis results in the Model Summary table revealed that Project Monitoring structure accounted for 38.8% on Project Management of Agro pastoral industries Biyoole project and this was indicated by r-squared of 0.388, implying that to small extent Project Monitoring structure as an aspect of project communication contributes to the Management of Agro pastoral industries Biyoole project in Hargeisa Agro pastoral industries Biyoole project. The ANOVA table indicated that Project Monitoring structure as a system of project communication significantly affects the Management of Agro pastoral industries Biyoole project and this was indicated by the F-value=56.956 and Sig-value=.000, since the sig. value (0.000) was less than 0.05 and which is the maximum level of significance required to declare a significant effect. This implies that Project Monitoring structure as an aspect of project communication highly contributes to the Project Management of Agro pastoral industries Biyoole project. The coefficients table indicated that considering the standard error, Project Monitoring structure significantly influence the Project Management of Agro pastoral industries Biyoole project (β=0.629, Sig=0. 000).

Decision on hypothesis

The hypothesis was rejected since the significant value was found to be less than 0.05 (Sig=0. 000).

4.6 The influence of data quality on management of Biyoole project, Hargeisa, Somalia

Table 4.12: Results of the influence of data quality on management of Biyoole project, Hargeisa

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780[a]	.609	.604	.39451

a. Predictors: (Constant), Data quality

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.788	1	21.788	139.990	.000[a]
	Residual	14.008	126	.156		
	Total	35.796	127			

a. Predictors: (Constant), Data quality

b. Dependent Variable: Management of Biyoole project

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.672	.193		3.476	.001
	Data quality	.741	.063	.780	11.832	.000

a. Dependent Variable: Management of Biyoole project

Source: Primary Data 2024

Regression analysis results in the model Summary table indicated that the Data quality significantly affects Project Management of Biyoole project at a rate of 60.9% and this was indicated by r-squared of 0.609, hence implying that Data quality significantly influences the

Management of Biyoole project. The ANOVA table indicated a positive significant effect Data quality has on Management of Biyoole project and this was indicated by the positive Beta=0.741 and Sig-value=.000, since the sig. value (0.000) was less than 0.05 and which is the maximum level of significance required to declare a significant effect. This implies that Data quality highly affect the Management of Biyoole project. Still this implied that high levels of Data quality improve the level of Management of Biyoole project and poor Data quality measures reduce it. The coefficients table indicated that considering the standard error, Data quality significantly affects the Management of Biyoole project (β=0.741, Sig=0. 000).

Decision on hypothesis

The hypothesis was rejected since the significant value was found to be less than 0.05 (Sig=0. 000).

4.7 Effect of monitoring methods on management of Biyoole project in Hargeisa, Somalia

Table 4.13: Results of Effect of Monitoring Methods on management of Biyoole project in Hargeisa, Somalia

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.224	.215	.55553

a. Predictors: (Constant), Monitoring Methods

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.021	1	8.021	25.992	.000[a]
	Residual	27.775	126	.309		
	Total	35.796	127			

a. Predictors: (Constant), Monitoring Methods

b. Dependent Variable: Management of Biyoole project

Coefficients[a]

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.224	.215	.55553

1	(Constant)	1.326	.315		4.207	.000
	Monitoring Methods	.562	.110	.473	5.098	.000

a. Dependent Variable: Management of Biyoole project

Source: Primary Data 2024

Regression analysis results in the Model Summary table indicated that the Monitoring Methods accounted for 22.4% on Project Management of Biyoole project and this was indicated by r-squared of 0.224, implying that Monitoring Methods as a system of project communication significantly contributes 22.4% on the Project Management of Biyoole project. The ANOVA table indicated that Monitoring Methods significantly affects the Management of Biyoole project and this was indicated by the F-value=25.992 and Sig-value=.000, since the sig. value (0.000) was less than 0.05 and which is the maximum level of significance required to declare a significant effect. This implies that Monitoring Methods as a system of project communication highly affects the Project Management of Biyoole project. The coefficients table indicated that considering the standard error, Monitoring Methods significantly affects the Management of Biyoole project (β=0.562, Sig=0. 000).

Decision on hypothesis

The hypothesis was rejected since the significant value was found to be less than 0.05 (Sig=0. 000).

4.8 Multiple linear regression

Table 4.14: Multiple linear regression analysis between the Independent and dependent Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440[a]	.506	.612	.13191

a. Predictors: (Constant), Monitoring structure, Monitoring Methods, Data quality

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.271	1	1.757	5.168	.001[a]
	Residual	2.192	126	.017		
	Total	7.464	127			

a. Predictors: (Constant), Monitoring structure, Monitoring Methods, Data quality

b. Dependent Variable: Management of Biyoole project

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.173	.184		8.254	.000
	Monitoring Methods	.469	.057	.089	4.759	.000
	Data quality	.513	.034	.499	3.733	.001
	Monitoring structure	.403	.032	.483	2.840	.001

a. Dependent Variable: Management of Biyoole project

Source: Primary Data, 2021

Regression analysis results in table 4.8 revealed that project communication accounted for 61.2% on Project Management of Biyoole project and this was indicated by adjusted r squared of 0.612, this imply that project communication significantly affect the Project Management of Biyoole project, and this is indicated by the F-value=0.513, and Sig=0. 001. The coefficients table indicated that of all the aspects of project communication , Monitoring Methods accounted for the biggest influence on Project Management of Biyoole project (β=0.513, Sig=0. 001).

Model Summary of All Independent Variables (IVs) on the Dependent Variable (DV)

The key model summary results are as follows:

Model	**R**	**R Square (R^2)**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.440	**0.506**	0.612	0.13191

a. Predictors: (Constant), Monitoring Structure, Monitoring Methods, Data Quality

b. Dependent Variable: Management of the Biyoole Project

R^2 Value: **0.506**, which means that the independent variables (Monitoring Structure, Monitoring Methods, and Data Quality) collectively explain **50.6%** of the variance in the dependent variable (Management of the Biyoole project).

This value indicates that more than half of the variation in project management outcomes can be attributed to the monitoring structure, methods, and data quality used in the Biyoole project in Hargeisa, Somalia.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter dealt with the discussion of findings, the conclusions and recommendations drawn from the study findings. from the study objectives: to determine the effect of structure of monitoring on the management of Biyoole project in Hargeisa, Somalia, to assess the effect of Monitoring Methods on the management of Biyoole project in Hargeisa, Somalia and to examine the effect of data quality on the management of Biyoole project in Hargeisa, Somalia.

5.1 Discussion of findings

5.1.1 Demographic characteristics of respondents

The study findings revealed that 76 (70%) of the respondents were male while the rest 33(30%) were female. This implies that majority of most of the employees in regulatory bodies are male while their counterpart occupies only small portion. The responses indicate that most of the respondents 48(44%) were aged between the 20-25 years, followed by 30(28%) who were aged between 26-30 years, 18(17%) were between 31 and 36 years, and the least proportion of respondents 13(12%) were 41 years and above. This implies that the Biyoole project in Hargeisa, Somalia is mainly composed of middle aged adults since they are believed to be energetic and strong enough to operate the project. It was discovered that that that out of the 158 respondents, 70(64%) of the respondents reported being single, 20(18%) reported being married, 10(9%) reported being Widow, 9(8)% were divorced. The findings inculcated that all the categories of the respondents were all covered in regard to their Marital Status and the majority of the respondents were Single because they secured the highest percentage (64%). Furthermore the findings on the level of education of the respondents that participated in the study, results indicate that majority of the respondents 44(40%) had acquired Bachelors holders of education, followed by 28(26%) who had Diploma holders, 22(20%) had Masters Holders, 15(14%) had certificates holders. The results imply that the Biyoole project in Hargeisa, Somalia was dominated by people who have Bachelors holders. The results further confirm that the project was composed of people with vast knowledge and this contributed significantly to the study findings. Furthermore results showed that respondents in terms of years spent working, majority of the respondents (35%) had worked for 4-6 years, followed by those

between 2-3 years (28%), 25% had worked for 0-1 year, finally 13% had worked for 5 years and above. This indicated that majority of these respondents had enough experience in their fields, and therefore they could provide the researcher with the information required.

5.2. Summary of Findings

5.2.1 The effect of monitoring structure on management of Biyoole project in Hargeisa – Somalia

Results in table 4.7 indicated that the effect between Monitoring structure on management of Biyoole project in Hargeisa, Somalia was rated good and this was indicated by the overall mean of 2.97, implying that there is a formalized system intended to help the Biyoole project on how plans are drawn after consulting the members. This is in line with Khan, (2018) who clarified Monitoring (monitoring) are tools employed to assess the relationships of intentions versus actions, actions versus outcomes and outcomes versus impacts. However, the most important yet quite often the most neglected aspect of monitoring is feedback. It is the feedback of lessons learned through monitoring that assists in correcting current mistakes to improve future decisions (Khan, 2018). A results-based monitoring system is essentially a feedback system; it is a management tool to measure and evaluate outcomes, providing information for governance and decision making. A results-based system, whilst not neglecting the monitoring of inputs and outputs, attaches the highest importance to providing feedback on results at the level of outcomes and goals (Edmunds & Marchant, 2018).

And top management has a positive attitude towards strengthening the monitoring system and this was indicated by the average mean of 3.35, implying that the Biyoole project managers major responsibility is to build supportive social networks. Successful project management with monitoring structure is about being there for everyone, being in touch with the real challenges of the project, understanding the real issues within the team who must deliver the project this was indicated by the average mean of 3.05 this further shows that Successful project management with monitoring structure is about being there for everyone involved in the project. This is also in line with Taut (2017) study, “self- evaluation capacity building in a large international development organization”, indicate low organizational readiness for learning from evaluation. Moreover, interviewees similarly described a lack of open, transparent and critical intra-organizational dialogue and a lack of formal structures and processes to encourage reflection and learning as an organizational habit. At the same time, there was rather high

awareness of the potential for evaluation to be used as a tool for learning and demand voiced for such evaluations.

5.2.2 The influence of data quality on management of Biyoole project, Hargeisa

Results in table 4.9 with respect to the influence of data quality on management of Biyoole project, Hargeisa, this rated good and this was indicated by the overall average mean of 2.93, hence implying that data quality are used effectively for the good management of the project hence leading to the effectiveness of its activities. This is in line with Gebremedhin, Getachew & Amha, (2020). Who indicated that the source of management data is important to the credibility of reported results hence, it is important to incorporate data from a variety of sources to validate findings. Furthermore, while primary data are collected directly by the monitoring system for monitoring purpose, secondary data are those collected by other Biyoole project for purposes different from monitoring (Gebremedhin, Getachew & Amha, 2020). In the design of an monitoring system, the objective is to collect indicator data from various sources, including the target population for monitoring project progress (Barton, 2017).

Results in table 4.9 indicated that Monitoring system owned by users is likely to generate reliable information and this was rated very good and indicated by the mean of 3.27, which implies that Data quality in Biyoole project is the communication between the project and its relevant environment, typically the client and end-user. And this becomes an advantage to the management of Biyoole project when monitoring and evaluating project activities. This is also evidenced in Cornielje, Velema and Finkenflugel, (2018), according to them only when the monitoring system is owned by the users of the system is it likely to generate valid and reliable information. However, all too often the very same users may be overwhelmed by the amount of daily work which, in their view, is seen as more important than collecting data and, subsequently, the system may become corrupted. They conclude that it is of extreme importance that the front-line workers are both involved in monitoring and informed about the status of the services and activities they largely provide in interaction with other stakeholder and beneficiaries.

Results further indicated that Data collected when measured reports on outputs that reflect the critical stated objectives of the organization and this was rated good (mean=3.21), this implied that Data quality being effective within the working group in the construction industry in Somalia hence making projects more effective and a success. This is also evidenced in Singh

(2019), study, “the numeric paper forms for Biyoole project”, expressed concern regarding data collection namely: cost, time, training, data accuracy and consistency, storage and means of data analysis. Additionally, the Biyoole project that had experimented with electronic systems highlighted difficulties with infrastructure and maintenance. Among the key findings of the study was that data collection and form-filling are important activities for many Biyoole project; cost and ease-of-use are major concerns, often preventing technology-heavy systems; and digitized data is desired, but digitizing data was the bottleneck for data-collection efforts. A system of data collection should be self-organizing and evolving as it gathers information from the environment where the staff would then generate the information in the course of their daily activities (Innes & Booher, 2019).

5.2.3 Effect of monitoring methods on management of Biyoole project in Hargeisa, Somalia.

Results in table 4.8 with respect to the effect of Monitoring Methods on management of Biyoole project in Hargeisa, Somalia, this rated good and this was indicated by the average mean of 2.79, hence implying that Monitoring Methods are carried out and always assessed well in order to improve project effectiveness. This is also in line with Bakewell & Garbutt, (2021), in their study noted that, where the Logical Framework Analysis (LFA) is used for monitoring, the focus is often the logical framework; to look at the expected achievements laid out in the matrix rather than the work itself. In theory, Bakewell & Garbutt argue, that the logical framework can be revised through the programme cycle and changes made at least to the output level However, this rarely happens in practice. In addition the task of monitoring becomes significantly more challenging as one moves up the log frame and emphasis shifts from management monitoring to results measurement. Moreover, working at the top end of the results chain is a question less of monitoring indicators than of systematic analysis of available evidence which can be a very data-intensive exercise, especially since such higher-level indicators become increasingly costly to collect and complex to analyze Edmunds & Marchant, (2018).

The results further indicated that the logical frameworks clearly indicates the proposed impact of the programme (mean=3.27), this was rated very good implying that Monitoring Methods has clarified project tasks, created teamwork and got all stakeholders involved in the running of the Project. The logical frameworks provides the intended outcomes of the programme

(mean=3.21), this was rated good thus this implies that The logical frameworks provides the intended outcomes of the programme hence leading to effectiveness of project communication in projects, more so this means that the use Monitoring Methods in the project still continues to be a very essential aspect of the project.

More so this was also evidenced in a study by Businge in the Rwenzori region of Uganda, (2020), who found out that donors rarely operate outside the log frame approach where they are boxed in results that are put in the project log frame, and yet the situation on the ground might sometimes affect the achievement of some of the results, hence requiring some aspects of the project to be changed. Therefore, any suggested changes by the implementing organizations had to go through prolonged to and fro communication over the changes. A critique to this argument, however, is that the log frame brings significant benefits for a range of stakeholders while their longevity suggests that, to a great extent, they meet the needs of powerful decision-makers in development organizations.

The logical frameworks provides the intended outcomes of the programme and this was rated good by the average mean of 2.82, thus this indicates that that Monitoring Methods has to a very large extent been used to determine the level of management at work in the company, thus implying that most project managers operating in different projects in Hargeisa have relied on Monitoring Methods to help them in the effective running of the project. This is also in line with Grove and Zwi, (2018), who noted that the log frame contains a natural bias towards quantification in that the matrix demands objectively verifiable indicators, forcing projects to consider how they will measure progress towards intended outcomes. While setting clear objectives and identifying ways of measuring these from the outset helps management and other stakeholders to identify where the project is succeeding or failing, this emphasis on the measurables also represents a crucial weakness. In particular, Grove and Zwi, (2018) argue that relationships between people (both internal and external to the project) and process issues (how the project is undertaken) are likely to be neglected, with attention focused on the most tangible outputs, such as clinics built or vaccinations administered.

5.3 Conclusions

5.3.1 The effect of monitoring structure on management of Biyoole project in Hargeisa – Somalia

The study confirmed that monitoring structures have a positive relationship with the management of monitoring systems in Non-government Organizations. monitoring should play a role in supporting effective management decisions since it provides information that supports decision-making. An effective decision arising from monitoring information is expected to improve the management of organizations.

The study also concludes that the reasons for Monitoring structure on management of Biyoole project in Hargeisa –Somalia includes developing a strategy that would deliver the project goals and that the critical dimensions of time, cost, quality and scope can never be attained if a project plan is not in place.

It is an institutionalized activity comprising of a series of predetermined and coordinated actions and processes for carrying out the identification, preparation, appraisal and implementation of projects.

5.3.2 The influence of data quality on management of Biyoole project, Hargeisa

To fully understand how organisations use their monitoring systems, one is required to understand data flow between partners or different parts of the organization. Data derived from monitoring activities is often used by different people, sometimes in different locations, for a range of purposes. This means that data has to be moved either electronically or physically to enable this. We assume that each data flow incurs a cost to the organization or the project in terms of staff time or overheads and that is how data flows may give us some insights into the effectiveness and efficiency of the overall monitoring system. (Jennifer Chapman 2024:31).

In order to increase the effectiveness of an monitoring system, the monitoring plan and design need to be prepared as an integral part of the project (Nabris, 2022). The monitoring methods helps manage the process of monitoring, analyzing, evaluating and reporting progress towards achieving objectives. The monitoring Plan logical Framework serves as reference documents that contain targets, a detailed definition of each project indicators, the methods and frequency of data collection, as well as who is responsible for collecting the data. It will also provide details on how data will be analyzed and the evaluations required to complement monitoring data (CAP, 2022).

5.3.3 Effect of monitoring methods on management of Biyoole project in Hargeisa, Somalia.

The study concludes that the selection of tools and techniques to be used in an monitoring system determines its success or failure. However, constitutional review support protect in Hargeisa, Somalia is said to be unable to develop appropriate tools hence resulting to substandard monitoring systems that don't meet the requirements of the stakeholders. There is therefore a need to have consensus with all stakeholders on the kind of tools and techniques to be applied. The selection of tools and techniques also depends on information needed and available finances. The limitations of the monitoring tools and techniques should also be put in consideration during their selection. Logical framework for instance has been cited as one of the popular tools used by the sampled projects; however there are many arguments over its value as a planning, monitoring tool. The project should therefore be flexible to allow modification of their monitoring systems including tools and techniques used as well as consider experiences from other organization.

The study also concludes that the determinants which are considered important for an effective Monitoring methods include: project enabling environment, stakeholders' participation in project monitoring activities, project capacity to supply project monitoring information, and the project plan. The effectiveness of these determinants is manifested through easy assessment of projects, accountability in projects, capacity of staff to undertake project monitoring work among others.

Capacity building of personnel helps with the interaction and management of the monitoring systems. monitoring training starts with the understanding of the monitoring theory and ensures that the team understands the linkages between the project theory of change and the results framework, as well as associated indicators (CPWF, 2022). Training should therefore be practical and focused to ensure the understanding (CPWF, 2022). Theory of change (Perrin, 2022); it is a causal logic that links research activities to the desired changes in the actors that a project targets to change. It is therefore a model of how a project is supposed to work. The function of a theory of change is to provide a road map of where the project is heading while monitoring tests and refines that road map (CPWF, 2022 and Perrin, 2022).

5.4 Recommendations

In line with the findings, discussions and the conclusions of the study, the following recommendations were drawn;

5.4.1 The effect of monitoring structure on management of Biyoole project in Hargeisa – Somalia

Based on the findings of this study and the conclusion made, the study makes the following recommendations for policy action by Biyoole project given that their monitoring systems have a bearing on the kind of information they provide. It is appropriate to make preliminary assessments of the direction and nature of impacts by doing case studies of the target population within the lifetime of the project. This should entail studying a sample of the targeted beneficiaries.

The management should be proactive in designing of monitoring systems and offer timely support and guidance to ensure that monitoring activities are well executed and results communicated to form part in decision making and future planning.

The project should ensure that there is adequate early planning for project monitoring activities (including the human and financial Resources) and involvement of all stakeholders in development and implementation of the monitoring system. The project managers and the monitoring staff in charge of the monitoring systems should ensure that they employee staff with the required technical expertise and offer them the necessary training to operate the monitoring system effectively.

5.4.2 The influence of data quality on management of Biyoole project, Hargeisa

The study recommends that credibility is also essential to any monitoring system. Valid and reliable data help ensure the credibility of the system. To be credible, monitoring systems need to be able to report all data— both good and bad. If bad news, or information demonstrating failure to meet desired outcomes and targets, is deliberately not reported, the system will not be credible. There is need for data protection.

There is need for data audit. This should entail the review of monitoring systems to address needs arising from the use of software for analysis and allow for adjustments of monitoring plan when the approach changes.

5.4.3 Effect of monitoring methods on management of Biyoole project in Hargeisa, Somalia.

The study recommends that Monitoring Methods and techniques should be identified when preparing a monitoring plan and their limitation put into consideration. Training should be tailored towards the effective application of these Monitoring Methods and techniques. Where they are considered to be a big challenge to the implementation of an effective monitoring system they should be substituted.

The people who carry out monitoring methods are not different from other professionals and managers in the organization. In fact, a large number of managers and program officers involved in the development work perform the monitoring activities quite well, as mentioned earlier. Therefore, it should be part of the organizations HRD policy to orient and train middle management for the Monitoring Methods and also rotate them into various jobs for cross training aimed at better understanding and appreciation of the work done by other colleagues in the organization. The Monitoring Methods should be looked upon as the collective responsibility in the organization, particularly, when a separate section or person is assigned to the job to avoid internal conflict. It would help to create a culture of conscious monitoring, information sharing, seeking internal assistance in case of problem and most of all, sharing credit for success and Responsibility for failure.

5.5 Contribution to the Body of Knowledge

The study on the Biyoole Project in Hargeisa, Somalia, offers valuable contributions to the field of project management, particularly regarding monitoring structures, data quality, and monitoring methods within NGOs.

Firstly, the study highlights the critical role of structured monitoring systems in enhancing project management. It provides empirical evidence that well-designed monitoring structures facilitate effective decision-making by supplying crucial information. This aligns with the work of Khan (2018), who emphasizes the significance of monitoring in improving project outcomes through robust feedback mechanisms. By underscoring the necessity of integrating time, cost, quality, and scope dimensions into project planning, the study deepens the understanding of how coordinated monitoring actions can enhance project identification, preparation, appraisal, and implementation. This contribution is particularly valuable for NGOs operating in complex environments, where effective monitoring can lead to better project performance and outcomes.

Secondly, the research underscores the importance of data quality in project management. It reveals that high-quality, reliable data are essential for maintaining the credibility of monitoring systems, especially in resource-constrained settings. This insight is crucial for optimizing

monitoring efficiency and effectiveness, as it highlights the need for accurate and comprehensive data to support decision-making and accountability. The study's findings contribute to the broader discourse on data management, aligning with existing literature that underscores the importance of data integrity in project success.

Thirdly, the study explores the selection and application of monitoring tools and techniques, noting their impact on project success. It provides a critical perspective on the challenges faced by projects in developing and implementing effective monitoring tools, as illustrated by the issues encountered in the constitutional review support project in Hargeisa. This finding supports critiques of the Logical Framework Analysis (LFA) by Bakewell and Garbutt (2021), who highlight the limitations of rigid frameworks in adapting to practical realities. The study's recommendations for flexibility and stakeholder engagement in selecting monitoring tools contribute to the ongoing dialogue on adaptive project management. Furthermore, the emphasis on capacity building and practical training in monitoring theory aligns with the work of Perrin (2022) and CPWF (2022), which advocate for linking theoretical understanding to practical project outcomes.

Additionally, the study contributes to the understanding of how effective monitoring systems can improve stakeholder engagement and project accountability. By highlighting the need for transparency and regular feedback, the study supports the development of monitoring systems that not only track project progress but also foster a culture of open communication and shared responsibility among stakeholders.

Overall, this study enriches the body of knowledge by providing empirical evidence and practical insights into optimizing monitoring structures, ensuring data quality, and applying effective monitoring methods in NGO projects. Its findings are particularly relevant for enhancing project management practices in challenging environments like Somalia, ultimately contributing to improved project effectiveness and sustainability.

5.4 Areas of further research

This study used a single research methodological approach and future research through interviews could be undertaken to broaden the perspective. The standard questionnaire limited the ability to collect views about information outside the standard questions. The study dimensions were realistically only proxies for an underlying embryonic phenomenon which may render them not very appropriate for studies. Further research should look at; 1) information sharing, risk management and management of projects in Universities. 2) Teamwork, ethics and project management in organizations. 3) Procurement management and management of projects.

REFERENCES

Abeyrama, Tilakasena , Weber, & Karl, E. (2018). Monitoring in Retrospect: Reflections on Practical Experience and Recommendations. “Studies on Human Settlements Development in Asia”. India: Bangkok: Division of Human Settlements Development, Asian I.

Acharya, B. Y., Kumar, V., Satyamurti, R., &Tandon. (2016). Reflections on Participatory Evaluation - the Private Voluntary Organization for Health-II (PVOH) Experience. Paper presented for the International Conference on Participatory Monitoring: Experience and Lessons. Cavite, Philippines.

Action Aid.(2018). Accountability, Learning and Planning System (with notes to accompany ALPS). Retrieved December 12, 2023, from London: Action Aid, UK, Hamlyn House, Macdonald Road, Archway, London N19 5P.

Alcock, P. (2019). Targets, Indicators and Milestones. Public Management Review, 6(2).

Al-jibouri, S. H.(2023). ‘Monitoring system and their effectiveness for project cost control in Constructions’ *International Journal of Project Management* 21, 145-154.

Amin, A. (2021), Social *science research, conception, methodology and analysis*: Mogadishu, Somalia: Makerere University Printery

Anthony, R. N., & Govindarajan, V. (2017). *Management Control Systems*. McGraw-Hill Education.

Armonia, Ricardo, C., Dindo, M., &Campilan. (2016). Participatory Monitoring: The Asian Experience, Regional Overview Paper Prepared for the International Workshop on Participatory Monitoring, Cavite Philippines. UPWARD.

Armstrong, M., & Baron, A. (2023). Management Management: The New Realities. Chartered Institute of Personnel and Development.

Babbie, E., & Mouton, J. (2016).The Practice of Social Research. UK: Oxford University.

Bakewell, O. Garbutt, A. (2021). *The Use and Abuse of the Logical Framework Approach.* The International NGO Training and Research Centre (INTRAC). Retrieved from

http://www.intrac.org/data/files/resources/518/The_Use_and_Abuse_of_the_Logical_Framework_Approach.pdf

Bakker, SJA; De Vita, A; Olivier, JGJ (2020) *Monitoring emissions and actions in the post-2022 climate regime*. Bilthoven: Netherlands Environmental Assessment Agency

Bamberger, M. (2018).Enhancing the utilisation of evaluations for evidence-based policy-making. In M. Segone (Ed), Bridging the Gap.

Beynon-Davies, P. (2018). Database Systems (3rd ed.). Basingstoke, UK: Palgrave.

Brignall, S., & Modell, S. (2020, September).An Institutional Perspective on management of agro pastoral industries Measurement and Management in the "New Public Sector". Management Accounting Research, 11.

Carol W. (2019). *Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families* (Connell, J, Kubisch, A, Schorr, L, and Weiss, C. (Eds.) 'New Approaches to Evaluating Community Initiatives' ed.). Washington, DC: Aspen Institute.

Cheng, M.-I., Daint, A., & Moore, D. (2017).Implementing a new management management system within a project-based organization. International Journal of Productivity and Management Management., Vol. 56(1).

Clarke, A. (2021). A practical use of key success factors to improve the effectiveness of project management. *International Journal of Project Management*, 17(3), 139 – 145.

Cleland, D. I., & Ireland, L. R. (2017). Project Magment: Strategic Design and Implementation. (5th, Ed.) Singapore: McGaw-Hill.

Cohen, L., Manion, L., & Morison, K. (2018).Research Methods in Education. London: Routledge Falmer.

Cook, T. D. (2016). Collaborative Acting research within development evaluation: Learning to see or the road to Myopia?.Evaluation .

Cox, P. (2019).Evalaution for Improvement: A Seven-Step Empowerment Evaluation Approach for Violent Prevention Organizations .National Center for Injury Prevention.

Daft, R. L. (2021). *Management*. Cengage Learning.

Edmunds, R. Marchant, T. (2018). *Official statistics and monitoring systems in developing countries: friends or foes?* Partnership in Statistics for Development in the 21st

Estrella, M., &Gaventa, J. (2020)."Who Counts Reality? Participatory Monitoring: A Literature Review". IDS Working Paper 70. Brighton: Institute of Development Studies.

Frankel, N., & Gage, A. (2017). MONITORING Fundamentals: A Self-Guided Minicourse. (Measure Evaluation) Retrieved February 24, 2024, from Measure Evaluation: http://www.cpc.unc.edu/measure/publications/ms-07-20

Fukuda-Parr, S., Lopes, C., & Malik, K. (2022). Capacity for Development: New Solutions to Old Problems. London, UK: Earth- scan Publications, Ltd.

Funnell, S. (2017) 'Program Logic: An Adaptable Tool for Designing and Evaluating Programs', Evaluation News and Comment 6(1).

Gosling, Lousia, & Edwards, M. (2019). Toolkits: A Practical Guide to Assessment, Monitoring, Review and Evaluation. London: Save the Children. Governement of the Republic of Kenya.(2017). Kenya Vision 203.

Gray, J. (2019). Evaluations for learning, A discussion paper for the UK not-for-profit sector. Retrieved January 15, 2024, from www.framework.org.uk.

Greene,& Jennifer. (n.d.). Qualitative Program Evaluation: Practise and Promise, in Norman K. Denzin and Yvonna S. Lincoln (eds), A hand book of Qualitative Research . Thousand Oaks, Califonia: SAGE Publications Inc.

Hailey, J., &Sorgenfrei, M. (2019).Measuring Success: Issues in Management Measurement. INTRAC Praxis Programme. Series No. 44.

Hamer, A., &Komenan, A. G. (2024).Multinational Support Project. African Development Bank / African Virtual University. Nairobi: Boukary Savadogo& Dirk Bronselaer.

Hassan, A. I. (2022). *Influence of stakeholders role on management of agro pastoral industries of constituencies development fund projects a case of Isiolo North Constituency, Kenya* (Unpublished Masters Project), University of Nairobi, Nairobi.

Hogger, R., Kuchli, C., Zimmerman, A., Engler, M., &Vokra, E. (2021).Monitoring keeping in touch with reality. Berne: Swiss Agency for Development and Cooperation.

Horngren, C. T., Datar, S. M., & Rajan, M. V. (2021). *Cost Accounting: A Managerial Emphasis*. Pearson.

Jacobs, A. Barnett, C. Ponsford, R. (2020). *Three approaches to Monitoring: Feedback systems, participatory monitoring and Logical Frameworks*. Institute of Development studies, 41(6), 36-44

Jones, H. (2021). A guide to monitoring and evaluating policy influence, Overseas Development Institute Background Notes, ODI.ODI.ODI.

Khan, A. M. (2021). A Guidebook on Results Based Monitoring: Key Concepts, Issues and Applications. Sri Lanka: Monitoring and Progress Re- view Division, Ministry of Plan Implementation.

Kohli, U. T., &Chitkara, K. K. (2018).Kohli, U. Project management Handbook. New Delhi, India: Tata McGraw-Hill Publishing company Limited.

Kothari, C.R. (2024) *Research Methodology: Methods and Techniques*. 2nd Edition, New Age International Publishers, New Delhi.

Krzysztof, J., Potkańsk, T., &Stanisław, A. (2021).Internal Project MONITORING System and Development of Evaluation Capacity – Experience of the World Bank-funded Rural Development.World Bank.

Kusek, J. Z., &Rist, R. C. (2024).Ten Steps to a Results-Based Monitoring System. Washington DC, United States of America: The International Bank for Reconstruction and Development / The World Bank.

Mackay, K. (2017). How to Build Monitoring Systems to Support Better Government. Washington DC, Washington DC, United States of America: World Bank.

Maddock, N. (2019). Has project monitoring worked? Bradford , BD7: Development and Project Planning Centre , University of Bradford.

Marsden, David, & Oakley, P. (2021) .Evaluating Social Development Projects: Development Guidelines.Oxfarm. Oxford.

Merchant, K. A., & Van der Stede, W. A. (2017). *Management Control Systems: Performance Measurement, Evaluation and Incentives*. Pearson Education.

Msila, V., &Setlhako, A. (2023) . Evaluation of Programs: Reading Carol H. Weiss. University of South Africa, College of Education, Department of Education Leadership and Management. Pretoria, South Africa: Horizon Research Publishing.

Naidoo, I. A. (2021). The role of monitoring in promoting good governance in South Africa: A case study of the Department of Social Development. University of Witwatersrand. Johannesburg: WIReDSpace.

Narayan-Parker, D., & Nagel. (2019). Participatory Monitoring: Tools for managing Change in Education. . World Bank. Washington DC: World Bank.

Njuki, J., Kaaria, S., Chetsike, C., & Sanginga (2023).Participatory monitoring for stakeholder engagement, and institutional and community learning. *Journal of Academic Research in Business and Social Sciences.*

Nuguti, E. O. (2019). Understanding Project Monitoring. Nairobi, Kenya: EKON Publishing.

Nyonje, R. O., Ndunge, K. D., &Mulwa, A. S. (2022).Monitoring of Projects and Programs - A Handbook for Students and Practitioners. Nairobi, Kenya: Aura Publishers.

OECD. (2022). Glossary of Key terms in Evaluation and results Based management. OECD.

Ogula, P. A. (2022). Monitoring of Educational Projects and Progrmas. Nairobi, Kenya: New Kemit Publishers.

Okungu, V. (2021).*Has health aid failed to mitigate out-of-pocket expenditure in developing countries?* International Health Policies News.

Olive, B. (2022). Planning for Monitorings. Olive Publiication.

PAMFORK. (2017) .Report of Workshop on Using Participatory Methodologies for Monitoring. Nairobi, Kenya: Participatory Methodologies for Monitoring, South-South Sharing Forum .

Pawson, R., & Tilley, N. (2024).Realistic Evaluation. London: SAGE Publications.

Pfohl,& Jacob. (2019). Participatory Evaluation: A User's Guide. New York: Private Agencies Collaborating Together (PACT).

PMI. (2016). Project Management Body of Knowledge (3rd ed.). USA: PMI.

Preskill, H. (2024). The transformational power of evaluation: Passion, purpose and practice, In Alkin, M.C. (Ed) Evaluation Roots, Tracing Theories, Views and Influences. SAGE.

Project Management Institute-PMI, 2022.

Reviere, R., Berkowitz, S., Carter, C., &Gergusan, C. (1996).Needs Assessment: Acreative and Prasctical Guide for Social.

Rodgers, P., & Williams, B. (2016). Evaluation for practice improvement and organisational learning, In Shaw, I.F., Greene, J.C. and Mark, M.M. (Eds) The SAGE Handbook of Evaluation. London: Sage Publishers.

Roper, L., &Petitt, J. (2022). Development and learning organisation; An introduction.

Roza, T. G. (2023). Monitoring Influence. Lusaka, Zambia: University of Zambia.

Schwandt, T. A., &Burgon, H. (2016).Evaluation and the study of live experience. In In Shaw, I.F., Greene, J.C. and Mark, M.M. (Eds) The SAGE Handbook of Evaluation. London: Sage Publishers

Schwartz, R., & Mayne, J. (2021). Quality Matters: Seeking Confidence in Evaluating, Auditing, and Management Reporting. Comparative Policy Evaluation.Transaction Publishers.

Sethi, R., &Philippines, R. (2022). The influence of project managers on project success criteria and project success by type of project. *European Management Journal*, 25(4), 298-309.

Shapiro, J. (2021). Monitoring. Johannesburg: CIVICUS: World Alliance for Citizen Participation.

Simons, R. (2019). *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal*. Harvard Business Review Press.

Steinmann, H., & Schreyögg, G. (1984). *Management: A European Perspective*. Thomson Learning.

Taut, S. (2017). Studying Self-Evaluation capacity Building in a Large International Development Organization. *American Journal of Evaluation*, 28; 45 doi: 10.1177/1588214006296430

Technopedia.(2023). Database Management System. Retrieved December 17, 2023, from Technopedia: http://www.techopedia.com/definition/24361/database-management-systems-dbms

Umulisa, A., Mbabazize, M., & Shukla, J. (2021). Effects of Project Monitoring Practices on Project Management of Agaseke Project in Kigali, Rwanda. *International Journal of Business and Management Review*, *3*(5), 29-51.

UNAIDS. (2018). *Organizing framework for a functional National HIV Monitoring System*, Geneva.

UNDP (2022). Handbook on Monitoring for Results. New York: UNDP.

UNDP, (2017), Biyoole Support Project (CRSP-II) report, retrieved from https://www.so.undp.org/content/Somalia/en/home/projects/constitutional-review-support-project--crsp-ii-.html

UNDP, (2020), Biyoole Support Project (CRSP-II) report, retrieved from https://www.so.undp.org/content/Somalia/en/home/projects/constitutional-review-support-project--crsp-ii-.html

UNDP. (2020). Results-Oriented Monitoring: A Handbook for Program Managers.

UNDP. (2016). Who are the Question-Makers? A Participatory Evaluatin Handbook, Office of the Evaluation and Strategic Planning.

UNDP.(2019). Handbook on Planning Monitoring and Evaluating for Develoment Results. New York, USA: United Nations Development Program.

UNDP.(2019). Workshop on Goals and Indicators for Monitoring for Water and Sanitation.Monitoringfor Water and Sanitation.UNDP World Bank Water and Sanitation Program. New York: UNDP.

UPWARD. (2021). Interfacing P MONITORING with the Research and Development Process: An Introduction. Self-assessment: Participatory Dimensions of Project Monitoring.

Verma, V. (2021).Organizing projects for success. Project Management Institute. . Newtown Square, PA.

Ward,&Pene. (2019). Getting the Right End of the Stick: Participatory Monitoring in an Organizational Context,. Cavite.

Weiss, C. (2018) Evaluation: Methods for Studying Programs and Policies. Englewood Cliffs, NJ: Prentice Hall

Wiener, N. (1948). *Cybernetics: Or Control and Communication in the Animal and the Machine*. MIT Press.

Woodhill, Jim, & Lisa, R. (2022). Participatory Evaluation for Landcare and Catchment Groups: A Guide for Facilitators. Greening, Australia.

Wysocki, R. K., & McGary, R. (2023). Effective Project Management - Traditional, Adaptive and Extreme (3rd ed.). (R. M. Elliott, Ed.) Indianapolis, Indiana: Wiley Publishing.

APPENDICES

Appendix I: Questionnaire for respondents

Dear respondent,

1 am Fardawsa Abdikadir Abdi Isse, a student of Kampala International University pursuing a Masters in project planning and management. I am currently conducting a study on**: (*Project monitoring and management of agro pastoral industries. A study of Biyoole project in Hargeisa, Somalia)***, as part of my study requirements at Kampala International University.

Your responses are very important in the success of this study. The information provided will be only used for academic purpose and will be treated with utmost confidentiality.

Please ticks the appropriate boxes which best suit your view and fill in the blanks where necessary.

Section A: General information.

• Gender:

1. Male ☐
2. Female ☐

• Age(in years):

1. 20-30 ☐
2. 30-40 ☐
3. 40-50 ☐
4. Above 50 ☐

• Marital status:

1. Single ☐
2. Married ☐
3. widow ☐

Other; please specify……

• Highest level of Education so far attained**.**

1. Masters ☐
2. Undergraduate ☐
3. Diploma ☐
4. Certificate ☐

Others; specify…….

• Length of service in the organization (in years).

1. 1-4 ☐
2. 5-8 ☐
3. 9-12 ☐
4. Above 12 ☐

• Your work experience in monitoring activities.

1. None ☐
2. 1-4 ☐
3. 5-8 ☐
4. 9-12 ☐
5. Above 12 ☐

STUDY OBJECTIVES

Direction 1: Please write your rating on the space before each option which corresponds to your best choice. Kindly use the scoring system below:

Score	Response Mode	Description	Interpretation
5	Strongly Agree	You agree with no doubt at all	Very satisfactory
3	Agree	You agree with some doubt	Satisfactory
2	Disagree	You disagree with some doubt	Unsatisfactory
1	Strongly Disagree	You disagree with no doubt at all	Very Unsatisfactory

(i) To examine the influence of monitoring on the management of Biyoole Project in Hergisa, Somalia.

(ii) To assess the impact of data quality on the management of monitoring systems of Biyoole Project in Hergisa, Somalia.

(iii)To identify the effects of Monitoring methods and the management systems of Biyoole Project in Hergisa, Somalia.

SECTION B: THE INFLUENCE OF MONITORING ON THE MANAGEMENT OF BIYOOLE PROJECT IN HERGISA, SOMALIA		4	3	2	1
1	Top management has a positive attitude towards strengthening the monitoring system.				
2	The organization has a well-defined structure that includes a monitoring unit.				
3	The organization conducted assessment of the overall management of Monitoring on a regular basis.				
4	The organization has a policy or set standards in place describe roles and responsibilities of the operation of monitoring system.				
5	The organization has got a champion for the monitoring exercises.				
SECTION C: THE IMPACT OF DATA QUALITY ON THE MANAGEMENT OF MONITORING SYSTEMS OF BIYOOLE PROJECT IN HERGISA, SOMALIA					
6.	Monitoring system owned by users is likely to generate reliable				

	information				
7.	Date collection when measured report on outputs that reflect the critical stated objectives of the organization.				
8.	Good system identifies key issues as well as root of problems that the organization wants to address				
9.	Data collection activities conducted legally with due regard to the welfare of those affected by its results.				
10.	Frequently collected data enables to truck trend as well as understand project intervention.				
11.	Data collected provides clear indicators against which the organization work is being measured.				
SECTION E: THE EFFECTS OF MONITORING METHODS AND THE MANAGEMENT SYSTEMS OF BIYOOLE PROJECT IN HERGISA, SOMALIA					
17.	The logical frameworks clearly indicates the proposed impact of the programme				
18.	The logical frameworks provides the intended outcomes of the programme				
19.	The logical frameworks provides the intended outcomes of the programme				
20.	The logical frameworks provides the planned outputs of the programme				
21.	The logical frameworks clearly defines the indicators to track progress of the programme				
22.	Funding is a key factor on management of agro pastoral industries of the monitoring system				
23.	Monitoring Methods has provided technical support and guidance to project staff of Biyoole Support Project				
24.	Monitoring Methods is recognized to be a significant, but complex, multidimensional predictor of job satisfaction in Biyoole Support Projects				

SECTION F:

1. Please tick the appropriate box depending on your level of agreement or disagreement as arranged in the 5 Likert Scale:

1	**2**	**4**	**5**
Strongly Disagree	Disagree	Agree	Strongly Agree

NO	**PROJECT MANAGEMENT**	**1**	**2**	**4**	**5**
1	All staff get feedback after measurement of project activities.				
2	The project has adequate capacity to commission evaluations				
3	The project has adequate capacity to conduct evaluations				
4	There exists a management information system or database to frequently provide data				
5	Overall monitoring systems meet the information needs of staff.				
6	The project has essential tools or equipment for data management				
7	The projects monitoring materials that are available target different audiences				
8	The projects monitoring materials that are available support data sharing				
9	The projects monitoring materials are available for use				

Thanks for your responses

End

Appendix II: Interview guide for middle management and senior management

Dear Respondents,

The purpose of this interview guide is to request you to provide information about influence of project monitoring on management of agro pastoral industries: a case study of Hergisa Biyoole, Somalia. The information supplied will be used for purely and exclusive for academic purpose and will be treated with a lot of confidentiality.

Influence of monitoring systems and management

Please answer the following questions where appropriate and fill in the spaces provided.

1) Describe how Monitoring systems are executed at Hergisa Biyoole project?

……
……

2) Describe some of the tools and methods used in Monitoring systems at Hergisa Biyoole project and their importance?

……
……

3) Explain some of the ways in which Hergisa Biyoole project management influences Monitoring systems?

……
……

4) How do you determine the needs for assessment of Monitoring systems at Hergisa Biyoole project?

……
……

5) What is the criterion of selecting your employees for training on monitoring at Hergisa Biyoole project?

……
……

6) What is the importance of training staff on Monitoring systems?
……
……

7) What would be the qualifications for one to be monitoring officer and considering the monitoring officers what would you say about their competencies?

……
……

8) How often do you involve stakeholders in monitoring exercise and what are some of the importance of stakeholders‟ involvement in monitoring systems?

……
……

9) What would you recommend to be done to improve monitoring systems at Hergisa Biyoole project Somalia?

……
……

Thank you for your cooperation and assistance

Appendix III: Work plan

Time resources required for the thesis report.

2022 -2023	Sep	Oct	Nov	Dec.	Jan	Feb	Mar	Apr	May	Jun	Jul
Proposal											
Data Collection											
Data Compiling and Analysis											
Thesis Report Writing											

Appendix IV: Research budget estimates

ITEM	AMOUNT IN UGX
Stationery	200,000
Accommodation	700,000
Research Equipment	400,000
Consultation expenses	550,000
Meals	600,000
Transport	600,000
Miscellaneous	400,000
GRAND TOTAL	**3,450,000**