

**FACTORS INFLUENCING DATA QUALITY IN MONITORING AND  
EVALUATION OF PUBLIC SECTORS IN CHALINZE DISTRICT,  
TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
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DEPARTMENT OF ECONOMICS AND COMMUNITY ECONOMIC  
DEVELOPMENT  
THE OPEN UNIVERSITY OF TANZANIA**

**2025**

**CERTIFICATION**

The undersigned certify that they have read and hereby recommend for acceptance by The Open University of Tanzania a study entitled; **“Factors Influencing Data Quality in Monitoring and Evaluation of Public Sectors in Chalinze District, Tanzania”** in partial fulfilment of the requirements for the award of the Degree of Master of Arts in Monitoring and Evaluation (MAME).

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## **DEDICATION**

I dedicate this work to God, whose guidance and blessings have been the cornerstone of this journey. I am deeply grateful for His unwavering support and strength, which have carried me through every challenge and triumph. I recognize that this achievement is a testament to His grace and wisdom. To God be the glory for this accomplishment and for every step of the path that led to its completion.

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I, **Agricola Surumbu**, declare that the work presented in this study is original. It has never been presented to any other university or institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Master of Arts in Monitoring and Evaluation (MAME).

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Signature

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Date

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## ABSTRACT

This study explored the factors influencing data quality in the monitoring and evaluation (M&E) systems of public sectors in Chalinze District, Tanzania. Effective M&E systems are vital for ensuring good governance and enhancing public sector performance. The research aimed to identify the accuracy, consistency, and completeness of data collection methods and their impact on data quality. Utilizing a quantitative approach, the study employed descriptive statistics to analyze survey data collected from district officials and M&E officers. Secondary data sources included project reports and relevant literature. The results revealed significant issues in data recording practices and inconsistencies in reporting, leading to challenges in data accuracy and completeness. The study highlighted the need for standardized data collection tools and regular training for M&E personnel to address these issues. Conclusions drawn from the research emphasize the importance of rigorous data management practices and continuous improvement of M&E systems to ensure high-quality data, which is crucial for informed decision-making and effective public sector management. The study recommended that organizations should adopting advanced data management tools and fostering a culture that values data quality will support the efforts of offices of public and private sector.

**Keywords:** *Data Quality, Monitoring and Evaluation, Public Sectors.*

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### **LIST OF ABBREVIATIONS**

CAADP	Comprehensive Africa Agriculture Development Program
CAG	Controller and Auditor General
CDC	Chalinze District Council
DQM	Data Quality Management
HMIS	Health Management Information System
ICT	Information and Communication Technology
M&E	Monitoring and Evaluation
PMO	Prime Minister's Office
PO	President's Office, Regional Administration and Local Government
POS	Point of Sale
RALG	Regional Administration and Local Government
SPSS	Statistical Package for Social Sciences
TQM	Total Quality Management

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Chapter Overview**

This chapter covers the background of the study that highlights the origin of factors influencing data quality in monitoring and evaluation of public sectors in Chalinze district, Tanzania. Furthermore, this chapter briefly explains the statement of the problem, Research objectives, Research questions as well as significance of the study.

#### **1.2 Background to the Study**

Effective monitoring and evaluation (M&E) systems are crucial for ensuring good governance and public sector performance worldwide (Chirau, et al., 2022; Kanyamuna, 2021; Mohamed & Kulmie, 2023; Mwaguni, 2020; Sethu & Mafunisa, 2022). Studies in Europe highlight the importance of M&E in areas like agricultural education, environmental management, healthcare, and public administration, where robust data collection and analysis lead to better resource allocation and improved public sector service delivery outcomes (Didham & Ofei-Manu, 2020; Goldman et al., 2020; Muhayimana & Kamuhanda, 2020; Mwaguni, 2020; Soto et al., 2021; Uwizeyimana, 2020).

In Africa, despite challenges such as limited staff capacity and inadequate resources, significant strides are being made in improving M&E systems (Mwaguni, 2020). The Comprehensive Africa Agriculture Development Programme (CAADP) is setting a precedent with its robust M&E framework for agricultural development (Muroyiwa, 2022), which underscores the importance of effective M&E systems for improving



public sector performance and governance. Simultaneously, the M&E Task-Shifting Initiative in Botswana is enhancing health information systems by training new M&E officers, leading to improved data quality and management (Donaldson, 2021). Additionally, the Data Governance in Africa initiative is championing responsible data governance and tech-enabled M&E practices (Viljoen, 2021).

In East Africa, countries are making concerted efforts to improve their M&E systems. Kenya, for instance, has implemented a National Integrated Monitoring and Evaluation System (NIMES) to track the progress of its development agenda (Kivuva, 2023). Uganda has established a Government Evaluation Facility (GEF) to strengthen its evaluation culture and improve evidence-based decision-making (Ssewankambo, 2022). Rwanda's Imihigo performance contracts system has been lauded for promoting accountability and improving service delivery at all levels of government (Ndahiro, 2021).

In Tanzania, data quality has become a central focus in the pursuit of good governance and effective public service delivery (Chirau et al., 2022). Monitoring and evaluation, overseen by the President's Office, Regional Administration and Local Government (PO-RALG), are pivotal elements in this process. These activities ensure that resources are efficiently utilized and services are effectively delivered to citizens (Kanyamuna, 2021). The importance of data quality is further emphasized through the implementation of performance-based contracts within government ministries and agencies. This approach fosters a culture of accountability, incentivizes improved performance, and underscores the critical role of reliable and accurate data (PMO, 2024; Ndilito, 2023).

However, Tanzania faces several challenges in ensuring data quality in its M&E systems. A study by Mleke (2020) identified issues such as inadequate infrastructure, limited human resource capacity, and insufficient funding as major obstacles to effective M&E in Tanzanian local government authorities. Kapama (2022) highlighted the problem of data silos and lack of integration between different government departments, leading to inconsistencies and duplication of efforts. Mathayo and Kinyina (2022) pointed out the challenges of data timeliness and completeness, particularly in rural areas where internet connectivity and transportation can be problematic.

Further compounding these issues, Mwangu and Iravo (2023) identified cultural barriers to effective M&E in Tanzania, including resistance to change and a lack of data-driven decision-making culture in some government departments. Their study emphasized the need for cultural shift alongside technical improvements. Additionally, Kitalima (2022) highlighted the challenges of political interference in data collection and reporting processes, which can compromise the integrity and objectivity of M&E systems.

In the health sector, Manongi, et al., (2024) conducted a comprehensive study of Tanzania's Health Management Information System (HMIS), revealing persistent challenges in data accuracy and completeness at the primary healthcare level. They found that while significant improvements had been made in recent years, issues such as inadequate training for health workers, poor internet connectivity in rural areas, and insufficient data validation mechanisms continued to affect data quality.

In the education sector, Komba and Mwakabenga (2023) examined the implementation of the Education Management Information System (EMIS) in Tanzania. Their findings indicated that while EMIS has improved data management in the education sector, challenges persist in terms of data accuracy, especially in remote schools where regular data updates are difficult due to infrastructure and connectivity issues.

In the specific context of Chalinze District Council, concerns remain regarding data quality (Mleke, 2020). News reports and anecdotal evidence suggest inconsistencies in data collection and reporting practices, potentially leading to inaccurate assessments of performance. These challenges are not unique to Chalinze but reflect wider issues in Tanzania's public sector M&E systems. Several factors determine data quality in M&E systems, particularly in the public sector. Staff capacity and training are crucial for accurate data collection, analysis, and reporting (Donaldson, 2021). Adequate financial and technological resources are necessary to support robust M&E activities (Mwaguni, 2020). Standardized and systematic data collection methods ensure consistency and reliability (Viljoen, 2021). Efficient data management systems facilitate accurate data storage, retrieval, and analysis (Muroyiwa, 2022). Strong institutional frameworks and governance structures are essential for maintaining data quality (Ndilito, 2023).

The key attributes of data quality in M&E include accuracy, which measures how correctly data describes the phenomena it is intended to capture; consistency, referring to the uniformity of data across different datasets and over time; completeness, the extent to which all required data is collected and recorded;

timeliness, which addresses the promptness with which data is collected and made available for use; and reliability, which is the degree to which data can be depended upon to be accurate and consistent over time.

In Tanzania, efforts are being made to address these challenges. The government has introduced the Tanzania Statistical Master Plan (TSMP) to improve the national statistical system and enhance data quality across all sectors (NBS, 2023). The Open Government Partnership (OGP) initiative in Tanzania is promoting transparency and citizen engagement in data collection and use (OGP Tanzania, 2024). Additionally, the Tanzania Data Lab (dLab) is working to build data literacy and promote evidence-based decision-making in the public sector (dLab, 2023). Recent developments in technology are also shaping the landscape of M&E in Tanzania. The adoption of mobile data collection tools, such as the Open Data Kit (ODK), is improving the efficiency and accuracy of data collection in various sectors (Mrutu, 2023).

Blockchain technology is being explored as a potential solution for ensuring data integrity and traceability in government records (Bakari, 2024). Artificial Intelligence and Machine Learning are being investigated for their potential to enhance data analysis and predictive modeling in public sector planning (Mushi & Tesha, 2024). However, these technological advancements also bring new challenges. Nyamanshi and Kimaro (2023) highlighted issues of data privacy and security that arise with the increased digitization of government data. They emphasized the need for robust data protection policies and cybersecurity measures to safeguard sensitive information.

In a comparative analysis, Ochieng (2023) examined M&E practices across East African countries, revealing that while Tanzania has made significant progress, it still lags behind countries like Rwanda and Kenya in terms of data integration and utilization for decision-making. The study suggested that Tanzania could benefit from adopting some of the best practices from its neighbors, such as Rwanda's performance contract system or Kenya's county-level data management approach.

Looking at global trends, there is an increasing emphasis on participatory M&E approaches that involve local communities in data collection and analysis (World Bank, 2024). This approach, while showing promise in improving data relevance and utilization, presents its own set of challenges in terms of standardization and quality control. Tanzania's efforts to incorporate citizen feedback mechanisms into its M&E systems, such as the Sauti za Wananchi initiative, reflect this global trend but are still in the early stages of implementation (Twaweza, 2023). Despite these efforts, gaps remain in our understanding of the specific factors affecting data quality in M&E systems at the district level in Tanzania. Understanding these factors will be crucial for developing targeted interventions and improving the effectiveness of M&E systems in Tanzania.

This study aims to bridge this gap by investigating the specific context of Chalinze District Council, with the potential to inform broader improvements in Tanzania's public sector M&E practices. The findings from this study could contribute to the ongoing national dialogue on improving public sector performance and accountability. As Tanzania continues to strive towards its development goals, as outlined in the Tanzania Development Vision 2025 and various sector-specific

strategies, the role of high-quality data in informing policy decisions and resource allocation becomes increasingly critical (Ministry of Finance and Planning, 2024). By examining the factors influencing data quality in M&E at the district level, this study aims to provide valuable insights that could inform policy and practice not only in Chalinze but across Tanzania's public sector.

### **1.3 Statement of the Research Problem**

Good governance relies on accurate data for effective decision-making and public service delivery within local governments like Tanzania's district councils (Chirau et al., 2022; Mgoba, 2020; Mleke, 2020; Mohamed & Kulmie, 2023). Despite Tanzania's emphasis on data quality, inconsistencies in data collection and reporting persist within these councils. This study focuses on Chalinze District Council (CDC), where issues highlighted in the Controller and Auditor General's (CAG) Report 2022/2023 point to significant data quality problems within its Monitoring and Evaluation (M&E) system. The CAG report revealed unreliable revenue data due to problems with POS machines and taxpayer registration, uncollected taxes, outdated revenue by-laws, and inaccurate budgeting practices. Additionally, weak ICT controls and a lack of risk management policies further compromise data integrity (CAG Report, 2023). These inconsistencies can lead to misinformed decisions and hinder transparency within the council.

Despite these identified issues, there is a lack of comprehensive research exploring the specific factors that influence data quality within the M&E systems of Tanzania's district councils. This gap in the literature means that the underlying causes of data quality issues in contexts like Chalinze DC are not well understood. Consequently,

interventions to address these issues are not adequately informed by empirical evidence specific to the district's operational environment. To address these critical data quality challenges and improve decision-making within Chalinze DC, this study investigated the factors influencing data quality in the M&E system. By addressing these factors, this study contributed to strengthening good governance and public service delivery in Chalinze DC and the broader public sector in Tanzania.

## **1.4 Research Objectives**

### **1.4.1 General Objective**

The main objective of this study is to explore the factors influencing data quality in the Monitoring and Evaluation (M&E) system within the public sector of Chalinze District, Tanzania, with the aim of informing broader M&E practices across Tanzania's public sector.

### **1.4.2 Specific Objectives**

- i. To examine the accuracy of data collection methods used in the M&E systems of Chalinze District Council, with a focus on the appropriateness of tools and techniques applied.
- ii. To assess the consistency of data recording and reporting practices across departments in the M&E systems of Chalinze District Council, with attention to the standardization of tools and procedures.
- iii. To investigate the completeness of data collected for M&E purposes in Chalinze District Council, by analyzing the comprehensiveness of data collection process and instruments.

### **1.5 Research Questions**

- i. How accurate are the data collection methods used in the M&E systems of Chalinze District Council, particularly in terms of the appropriateness of tools and technique applied?
- ii. To what extent are data recording and reporting practices consistent across departments in Chalinze District Council's M&E systems, and how standardized are the tools and processes used?
- iii. How complete is the data gathered for M&E purposes in Chalinze District Council, and to what degree do the data collection processes and tools ensure comprehensiveness?

### **1.6 Scope of the Study**

This study was confined to the Chalinze District Council in Tanzania. The research specifically examined factors influencing data quality within the Monitoring and Evaluation (M&E) system of the council. The focus was on data used for internal decision-making and performance evaluation within the CDC, excluding data used for external reporting or national-level initiatives. Data management practices across various departments within the CDC's M&E system were explored, but the study did not delve into individual departmental M&E systems that may have existed.

### **1.7 Significance of the Study**

Understanding the factors compromising data quality within Chalinze District Council's M&E system was essential for enhancing public sector performance both in the district and across Tanzania. By pinpointing these factors and proposing tailored solutions, this study contributed to strengthening the M&E system in



Chalinze, enabling more informed decision-making, greater transparency, and improved service delivery to citizens. Moreover, the study's findings offered valuable insights for other government agencies in Tanzania, guiding efforts to enhance data quality in M&E systems nationwide. As a result, this improved data quality fostered better governance and public service delivery throughout the country.

### **1.8 Organization of the Study**

The research involved six chapters. Chapter one covered the background of the research, the statement of the research problem, an outline of the research objectives, research questions, significance of the study, and justification of the research. Chapter two included conceptual definitions, a theoretical and empirical review, as well as other aspects such as observed research gaps and the conceptual framework. Chapter three comprised of research methodology and strategies, sampling design and procedures, methods of data collection, and data processing and analysis. Chapter four presented the findings of the study, which in some disciplines are represented by the term results. Chapter five discussed the findings. Finally, chapter six presented conclusions (theoretical and managerial), recommendations, and possibly suggestions for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Chapter Overview**

The literature review chapter is pivotal in research, providing a thorough analysis of existing scholarship to inform and shape the study's direction. It encompasses defining key terms, reviewing theoretical and empirical literature, identifying research gaps, and constructing a conceptual framework to guide the research process effectively.

#### **2.2 Definition of Key Terms and Concepts**

##### **2.2.1 Data Quality**

Wang and Strong (1996) define data quality as "data that are fit for use by data consumers," highlighting the critical importance of data meeting the specific needs and expectations of its users. Batini and Scannapieco (2016) expand on this by emphasizing that data quality is "the degree to which data meets the specific needs of specific customers in a specific context." This underscores the contextual and user-specific nature of quality data.

In the context of this research, data quality is understood as the degree to which the data collected in the Monitoring and Evaluation (M&E) systems of Chalinze District Council is accurate, consistent, and complete, enabling reliable decision-making and governance improvement. It will be operationalized by examining key dimensions such as accuracy, consistency, completeness, and timeliness, all of which are essential for informed decision-making in the public sector.

### **2.2.2 Appropriate Data Collection**

Groves et al. (2011) define appropriate data collection as "the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes." This definition emphasizes the importance of systematic, methodical data collection that ensures reliable and relevant information for the research process. For this study, appropriate data collection refers to the systematic methods used to gather relevant data for monitoring and evaluating public sector performance in Chalinze District. These methods must ensure accuracy, completeness, and reliability, focusing on how well they capture the necessary variables to answer research questions related to data quality in M&E systems.

### **2.2.3 Data Recording Tools**

According to Kimberlin and Winterstein (2008), data recording tools are "instruments used to collect and record data, including surveys, questionnaires, checklists, and other forms designed to facilitate systematic data collection." These tools are crucial for ensuring that data is consistently and accurately captured during the collection process. In this research, data recording tools are operationalized as the various instruments (e.g., surveys, checklists, administrative data systems) used by Chalinze District Council to capture and record data for their M&E activities. These tools must be effective in ensuring the accuracy and consistency of the data, contributing to overall data quality and reliability for informed decision-making.

### **2.2.4 Data Gathering**

Creswell and Creswell (2017) define data gathering as "the process of collecting and

measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes." This definition emphasizes the importance of systematic data collection tailored to specific research objectives. For this study, data gathering is understood as the structured process of collecting relevant information from various departments within Chalinze District Council. The aim is to assess the quality of the data used in M&E systems, focusing on how comprehensive and accurate the gathered data is in addressing the specific objectives of this research.

### **2.2.5 Monitoring and Evaluation Systems**

Kusek and Rist (2004) define Monitoring and Evaluation (M&E) systems as "a continuous process of collecting and analyzing information to compare how well a project, program, or policy is being implemented against expected results." This definition points to the role of M&E systems in tracking progress and informing decision-making. In the context of this research, M&E systems refer to the structured frameworks used by Chalinze District Council to monitor public sector performance and evaluate the success of their programs. These systems are integral to ensuring data quality, as they provide the mechanisms for collecting, analyzing, and using data to make informed decisions and improve governance.

## **2.3 Theoretical Literature Review**

### **2.3.1 Data Quality Management Theory (DQM)**

This theory, initially proposed by scholars such as Wang and Strong in 1996, is a comprehensive approach to ensuring data is accurate, reliable, and fit for purpose. It encompasses a range of processes, policies, and practices aimed at maintaining high

standards of data quality. The theory assumes that data quality is contextual and what counts as quality data in one scenario may be below the benchmark for another data use case. However, a weakness of DQM is that it can be resource-intensive and challenging to implement across large and complex datasets. Recent developments in DQM have focused on utilizing diverse processes and technologies to gain insights into data health on larger and more complex datasets. In the context of this study, the variables borrowed from DQM could include data accuracy, consistency, completeness, and relevance. By assessing these dimensions, it was able to determine the quality of data within the M&E system of Chalinze District Council.

### **2.3.2 Total Data Quality Management (TDQM)**

The TDQM theory treats data as a product and applies quality management principles, similar to those used in manufacturing, to the process of managing data quality. It emphasizes a cyclical process of defining, measuring, analyzing, and improving data quality. This continuous improvement model aims to ensure that data meets the evolving needs of users, aligning with their requirements for accuracy, consistency, completeness, and relevance. By treating data management like a production process, TDQM encourages organizations to set specific data quality objectives and to continuously refine their processes.

One of the main strengths of TDQM is its structured approach, which provides a clear, repeatable process for improving data quality. This cyclical model allows for continuous refinement, which is particularly beneficial in dynamic environments where data needs can change over time. Strength is that TDQM promotes organizational accountability by defining clear roles and responsibilities for managing and improving

data quality. It also encourages the use of metrics to measure performance, enabling data-driven decision-making and clear identification of areas needing improvement.

Despite its strengths, TDQM has certain limitations. The theory assumes that organizations have the necessary resources—such as trained personnel, technology, and time—to continuously improve data quality, which may not always be the case, especially in resource-constrained settings. Additionally, TDQM may be overly complex for smaller organizations, where the cost and effort of setting up such a structured approach may outweigh the benefits. The theory also primarily focuses on internal data management processes and might not fully account for external factors such as data originating from third-party sources, where control over quality is limited.

In this study, the TDQM theory is relevant as it provides a framework for assessing and improving data quality within the Monitoring and Evaluation (M&E) system of Chalinze District Council. The variables used from this theory include accuracy, consistency, completeness, and timeliness. These variables are crucial in ensuring that the data collected for M&E purposes is reliable and fit for decision-making processes in the public sector.

### **2.3.3 Information Quality Theory**

The Information Quality Theory was developed by Eppler and Wittig in 2000. Information Quality Theory posits that data quality is a multidimensional concept that should be evaluated across various aspects, including accuracy, completeness, consistency, and timeliness. The theory emphasizes that data quality cannot be judged based on a single metric but must be assessed holistically to meet the needs

of its users. This multidimensional approach recognizes that different data users may prioritize different aspects of quality depending on their specific context and needs. For instance, one user might prioritize timeliness, while another might value accuracy more.

A key strength of Information Quality Theory is its comprehensive nature. By focusing on multiple dimensions of data quality, it allows organizations to understand and address the various factors that can influence the utility of data. This holistic view ensures that no single dimension of data quality is overlooked, which is particularly valuable in complex systems like Monitoring and Evaluation (M&E), where data serves multiple stakeholders with varying requirements. Additionally, this theory is flexible and can be adapted to different contexts, making it applicable across industries and sectors.

One limitation of the Information Quality Theory is its complexity; Assessing data across multiple dimensions requires significant resources, including time and expertise, which may not be readily available in all organizations, particularly in the public sector. Furthermore, the theory lacks a clear process or framework for how organizations can implement improvements in data quality. Unlike TDQM, which offers a cyclical improvement process, Information Quality Theory focuses more on the what (i.e., the dimensions of data quality) rather than the how (i.e., the steps to improve data quality).

In this study, Information Quality Theory is used to identify and assess key dimensions of data quality, such as accuracy, completeness, consistency, and

timeliness. These dimensions are critical in the context of Chalinze District Council's M&E system, where data needs to be reliable and comprehensive to support decision-making. This theory helps evaluate whether the data being collected is meeting the varied needs of different stakeholders involved in the M&E process.

As mentioned, TDQM serves as the prime theory for this study because it provides a clear, structured approach to continuously improving data quality, which aligns well with the goals of this research. However, Information Quality Theory is also crucial, as it offers a detailed breakdown of the dimensions of data quality, which enriches the analysis and evaluation process. The combination of both theories allows for a robust examination of both the processes (TDQM) and the specific quality aspects (Information Quality Theory) that impact the effectiveness of the M&E system in Chalinze District.

## **2.4 Empirical Literature Review**

### **2.4.1 To Assess the Accuracy of Data Collection Methods Used in the M&E Systems**

Kuye and Akinwale (2020) conducted a study on the accuracy of HMIS data in the Massaguet district of Chad. They compared paper-based register data with reported data and identified significant discrepancies due to issues like stock-outs of data collection tools and inadequate staff training. The study involved a sample of 123 respondents, including data collectors and analysts from various departments. Data was collected using structured interviews and questionnaires, and analyzed using statistical software to determine the error rates and inconsistencies. The findings indicated that while some methods showed high levels of accuracy, others were



prone to human error and systemic biases, highlighting the need for standardized procedures and regular training.

Azari, et al., (2023) conducted a study on the accuracy of HMIS data in Rwanda by comparing reported data with source documents from health facilities. The study sampled 157 participants, including field data collectors and department heads. Data was gathered through focus group discussions and surveys, and analyzed using both qualitative and quantitative techniques. They found that inaccuracies stemmed from incomplete data entries and errors during data transcription. This study highlights the importance of routine data quality audits and the use of electronic health records to minimize errors in data collection and reporting. These measures can enhance the reliability of health data and inform better health policy decisions.

Moya, et al., (2023) investigated the accuracy of data collection methods in Germany's public health monitoring systems. The study surveyed 146 individuals involved in data collection and management. Data was collected through interviews and observation, and analyzed using descriptive statistics and error analysis. The study involved a comparison of electronic health records with manual data entries and revealed substantial inconsistencies primarily due to human error and lack of standardized data entry protocols. The authors recommend implementing more rigorous training programs for data collectors and adopting advanced data verification technologies to improve data accuracy in the health sector.

Wang, et al., (2023) provided an overview of data quality (DQ) dimensions, antecedents, and impacts, emphasizing its significance in decision-making processes

in the business world. The study aimed to examine and understand DQ through a review of relevant literature, presenting a five-dimensional measure called Data Analytics Competency. The study employed experimental examination to validate the measure and assess its effect on corporate decision-making performance. Findings suggested that enhancing data quality, along with factors like analytical skills and tool sophistication, positively impacts decision quality and efficiency.

Solomon, et al., (2021) focused on assessing data quality in the Health Management Information System (HMIS) among health centers in Southern Ethiopia. Using a facility-based cross-sectional study design, they selected 302 health professionals from 18 health centers via simple random sampling. Data collection involved assessing accuracy, completeness and timeliness dimensions, with statistical analysis conducted using SPSS version 20. The study found that overall data quality falls below the national target, emphasizing the need for improvements in supervision quality and training to enhance confidence and performance in HMIS activities.

#### **2.4.2 Evaluation of the Consistency of Data Recording and Reporting Practices in the M&E systems**

Rahman, et al., (2019) evaluated the consistency of data recording and reporting practices in India's EMIS across various educational departments. A sample of 172 departmental staff was used, and data was collected through surveys and document analysis. The analysis performed using thematic coding and statistical tools. The study found significant variability in data reporting standards and practices, leading to inconsistencies in the recorded data. They recommended standardizing data entry procedures and regular training for staff to ensure consistency and reliability in

educational data reporting.

Melariri, et al., (2023) conducted a study on the consistency of healthcare data recording and reporting practices across different departments in Dutch hospitals. The study sampled 189 participants, including data managers and clerks. Data was gathered through structured questionnaires and analysis of existing records, and analyzed using both qualitative and quantitative methods. The researchers identified that lack of uniformity in data entry protocols and variations in departmental reporting standards contributed to inconsistent data. They suggested the adoption of standardized data entry templates and regular cross-departmental audits to enhance consistency in data recording and reporting practices.

Khojah, et al., (2022) examined the consistency of data recording and reporting practices in municipal M&E systems in South Africa. The study involved a sample of 161 respondents from various departments. Data was collected through interviews and document reviews, and analyzed using content analysis and statistical measures. Their findings showed that inconsistencies were primarily due to varied interpretations of data collection guidelines and insufficient coordination between departments. The study recommended the development of clear, comprehensive data collection guidelines and improved inter-departmental communication to ensure consistency in data reporting.

#### **2.4.4 The Completeness of Data Gathered for M&E Purposes**

Feyisara (2023) assessed the completeness of agricultural data gathered for M&E purposes in Kenya's rural areas. A sample of 134 participants, including field

officers and data analysts, was used. Data was collected through surveys and secondary data review, and analyzed using completeness checks and gap analysis. The study found that data completeness was compromised due to fragmented data collection efforts and lack of follow-up on missing data. To address these issues, the study recommended the integration of digital data collection tools and systematic data validation processes to ensure comprehensive data gathering.

Hossein Azari, et al., (2022) conducted a study on the completeness of data collected for water and sanitation projects in Nigeria. The study sampled 149 respondents from different departments involved in data collection and reporting. Data was collected using structured questionnaires and analyzed using statistical software for completeness assessment. They discovered that incomplete data entries were common due to insufficient field supervision and gaps in data collection training. The authors suggested enhancing field supervision and providing extensive training for data collectors to improve data completeness and reliability.

Diego Moya, et al., (2023) evaluated the completeness of public health data collected for M&E purposes in Germany. The study revealed that data gaps were frequently due to missing patient information and incomplete data entries. The study involved a sample of 137 respondents, including data officers and department heads. Data was collected through structured interviews and secondary data analysis, and analyzed using completeness metrics and gap analysis techniques. The researchers recommended implementing electronic health record systems and regular data completeness audits to ensure that all relevant information is captured and reported accurately.

Sabharwal & Miah (2021) examined the relationship between Monitoring and Evaluation (M&E) data management and project performance, particularly focusing on infrastructure projects. The study conducted a review of relevant literature to establish a proposition and theoretical framework. Through critical assessment, the study identified a positive relationship between M&E data management and project performance, recommending the development of project-specific models to enhance operationalized project performance assessment.

Liao et al. (2017) aimed to develop a theoretical understanding of big data analytics capabilities in organizations. The authors conduct thematic analysis of existing literature on big data analytics capabilities. Thematic analysis was utilized for data analysis, revealing key capabilities essential for effective big data utilization, including data collection, processing, analysis, and visualization, alongside organizational factors like culture and leadership support.

## **2.5 Research Gap**

The existing literature has extensively examined data quality issues across various sectors and geographical contexts, including healthcare systems in Chad (Kuye & Akinwale, 2020), Rwanda (Azari et al., 2023), and Germany (Moya et al., 2023), as well as educational data management in India (Rahman et al., 2019). However, there is a notable absence of research specifically addressing data quality in Monitoring and Evaluation (M&E) systems within Tanzania's local government context, particularly in areas like Chalinze District Council. The unique challenges faced by local governments in developing countries, including resource constraints, varying levels of technological adoption, and diverse stakeholder needs, necessitate a

focused examination of data quality issues in this specific context. Understanding how these factors interact within the Tanzanian local government setting could provide valuable insights for improving M&E systems in similar contexts.

While the literature applies theories such as Data Quality Management (DQM), Total Data Quality Management (TDQM), and Information Quality Theory to assess data quality (Wang et al., 2023; Solomon et al., 2021), there is limited exploration of how these theories can be integrated and adapted to address the specific needs of M&E systems in resource-constrained local government settings. The existing research lacks a comprehensive theoretical framework that combines elements of these theories to holistically address the multifaceted nature of data quality challenges in M&E systems. Developing such a framework could provide a more nuanced understanding of data quality issues and guide more effective interventions in local government M&E practices, building upon the work of Sabharwal and Miah (2021) on the relationship between M&E data management and project performance.

Methodologically, most of the reviewed studies employ quantitative methods or mixed-methods approaches, often relying on surveys, questionnaires, and statistical analyses (Feyisara, 2023; Hossein Azari, et al., 2022). While these methods provide valuable insights, there is a lack of in-depth qualitative research that explores the underlying reasons for data quality issues in M&E systems, particularly from the perspective of various stakeholders involved in the data collection and management process. Additionally, there is limited use of participatory research methods that could engage local government officials and community members in co-creating solutions to data quality challenges. Employing such methodologies could yield

richer, context-specific insights and promote more sustainable improvements in M&E data quality, extending beyond the capabilities-focused approach of Liao, et al., (2017).

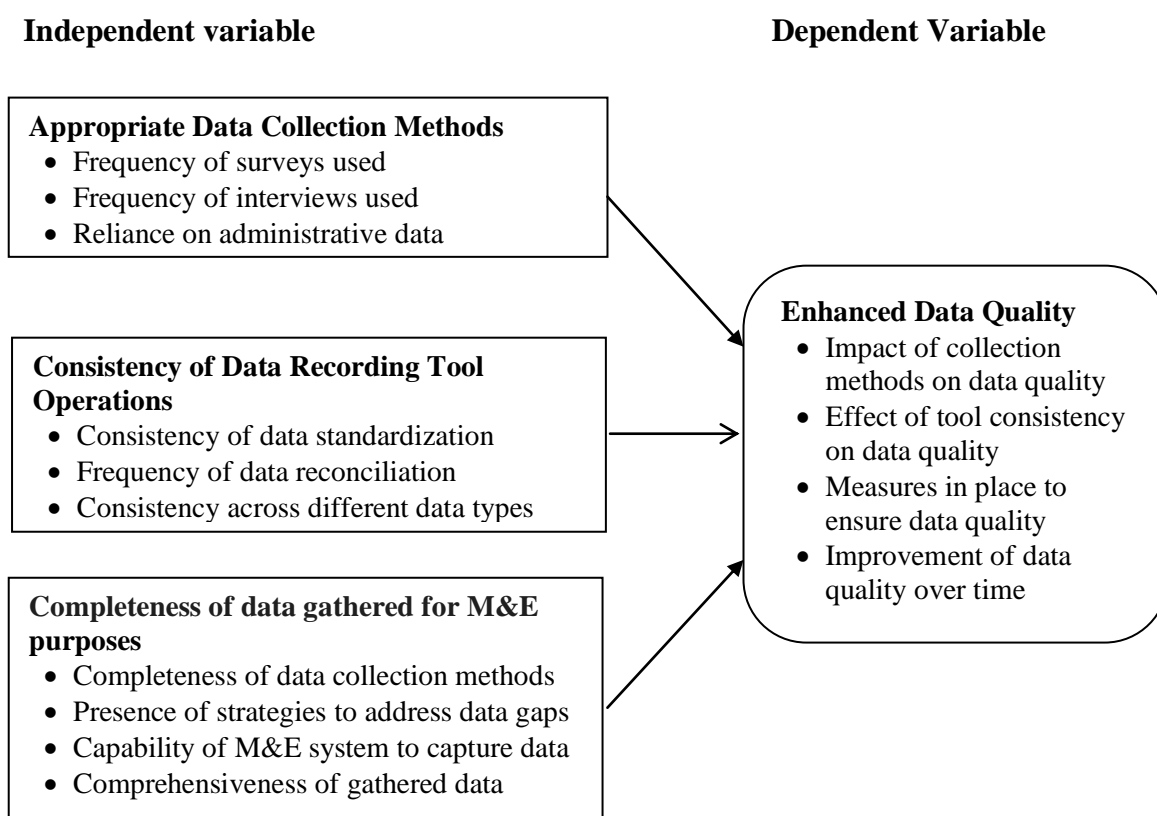
From a practical standpoint, the existing research primarily focuses on identifying data quality issues and proposing general recommendations (Khojah et al., 2022; Melariri et al., 2023). However, there is a significant gap in the literature regarding practical, implementable solutions tailored to the specific challenges faced by local governments in developing countries. Few studies have examined the effectiveness of interventions aimed at improving data quality in M&E systems, particularly in resource-constrained settings. There is a need for action-oriented research that not only identifies problems but also develops, implements, and evaluates specific strategies for enhancing data quality in local government M&E systems. Such research could provide valuable guidance for policymakers and practitioners seeking to improve the effectiveness of their M&E practices in similar contexts, building upon the theoretical foundations laid by studies like Wang, et al., (2023) on data analytics competency and its impact on decision-making performance.

## **2.6 Conceptual Framework**

The conceptual framework for this study outlines the relationship between key independent variables (IVs) and the dependent variable (DV), which is data quality within the monitoring and evaluation (M&E) processes of Chalinze District. Specifically, the framework identifies three primary IVs: appropriate data collection methods, consistency in the operation of data recording tools, and the completeness of data gathered. These variables are considered essential components that influence

the quality of data produced in the public sector.

The framework suggests that enhanced data quality is not a result of a single factor, but rather an outcome of the combined and interactive effects of these IVs. Each independent variable consists of specific attributes for example, structured interviews and standardized tools under data collection methods that directly or indirectly contribute to improving accuracy, reliability, and comprehensiveness of data. In essence, the framework guides the study by illustrating how the deliberate application of sound practices in data collection and management leads to improved data quality, which is crucial for informed decision-making and effective M&E in public institutions.



**Figure 2.1: Conceptual Framework**  
**Source:** Researcher (2024).



**Table 2.1: Description and Measurement of Variables**

<b>Variable</b>	<b>Description</b>	<b>Measurement</b>
Accuracy of Data Collection Methods	The degree to which data collection methods capture true and correct information	5-point Likert scale assessing perceived accuracy of methods
Consistency of Data Recording and Reporting	The uniformity and standardization of data recording and reporting practices across departments	5-point Likert scale evaluating perceived consistency of practices
Completeness of Data Gathered	The extent to which all necessary data is collected without omissions	5-point Likert scale measuring perceived completeness of data
Data Quality	The overall fitness of data for its intended use in the M&E system	Composite score derived from accuracy, consistency, and completeness measures

**Source:** Researcher (2024).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Chapter Overview**

This chapter presented the research methodology that was employed in the research. It consisted of research philosophy and approach, research design, study area, study population, sample size and sampling technique, data collection tools, data analysis method, and ethical considerations.

#### **3.2 Research Strategy and Design**

This research employed a quantitative approach, guided by the principles of Empiricism, which emphasizes observation and experience as the foundation of knowledge. Empiricism aligned well with the study's objective of quantifying the factors influencing data quality within Chalinze DC's M&E system through measurable variables (Saunders et al., 2016). The use of numerical data enabled an in-depth analysis of the relationships between data quality dimensions, management processes, and organizational structures (Babbie, 2019). A descriptive research design was adopted to describe the characteristics of the phenomenon data quality and its influencing factors at a specific point in time (Creswell, 2014). Within this design, a cross-sectional approach was utilized, involving the collection of data once from the target population. This approach provided a comprehensive snapshot of the current status of the M&E system in Chalinze, enabling a better understanding of the factors affecting data quality.

#### **3.3 Population of the Study**

The target population comprised 1005 employees involved in data collection,

management, and utilization within Chalinze DC's M&E system. This included staff from various departments such as Finance and Accounting (36 employees), Planning and Coordination (9 employees), Pre-primary and Primary (387 employees), Secondary (108 employees), and Health Sector (465 employees).

### **3.4 Study Area**

The research was conducted in Chalinze District Council, Tanzania, chosen for its unique combination of factors that make it an ideal case study for investigating data quality issues in M&E systems. According to the Controller and Auditor General (CAG) report for the financial year 2022/2023, Chalinze DC exhibited significant data quality challenges, with 37% of its financial reports containing inaccuracies or inconsistencies, compared to 28% in Bagamoyo and 31% in Kibaha districts (CAG, 2023). This higher incidence of data quality issues in Chalinze DC provides a rich environment for studying factors influencing data quality.

Furthermore, Chalinze DC's diverse range of departments (including finance, health, and education) allows for a comprehensive study across various public sector functions. The CAG report also highlighted that Chalinze DC had implemented only 62% of its planned M&E activities, compared to 71% in Bagamoyo and 68% in Kibaha (CAG, 2023), indicating a greater need and opportunity for improvement. Additionally, Chalinze DC's leadership expressed strong interest in enhancing their M&E systems, ensuring cooperation and support for the research. This combination of identified data quality challenges, representativeness of a typical district council, accessibility due to established contacts, departmental diversity, and willingness to participate made Chalinze DC the ideal location for this study, offering potential for

findings that could be generalized to other districts in the Pwani region and beyond.

### 3.5 Sample Size

To determine the sample size for this study, Taro Yamane's formula (Yamane, 1967) was used. This formula is widely recognized for its simplicity and effectiveness in calculating sample sizes for surveys and studies. The formula is as follows:

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

Where;

$n$  = sample size

$N$  = total population size (1005)

$e$  = desired level of precision (expressed as a decimal) (10%)

$$n = \frac{1005}{1 + 1005 \cdot (0.10)^2}$$

$$n \approx 90.99$$

Hence, using the Taro Yamane (1967) formula, the sample size would be approximately 91 employees.

### 3.6 Sampling Technique

Stratified random sampling was used, dividing the population into strata based on departments, job roles, and experience levels, and selecting respondents randomly from each stratum to ensure representativeness.

**Table 3.1: Strata Classification Table**

<b>Strata (Subgroup)</b>	<b>Description</b>	<b>Example Criteria</b>	<b>Sample Size Allocation</b>
Department	Category based on functional area within M&E system	<ul style="list-style-type: none"> <li>• Finance</li> <li>• Revenue Collection</li> <li>• Project</li> <li>• Implementation Units</li> </ul>	34
Job Role	Category based on specific job function	<ul style="list-style-type: none"> <li>• Data Collectors</li> <li>• Data Analysts</li> <li>• Data Managers</li> </ul>	47
Experience Level	Category based on years of experience in M&E system	<ul style="list-style-type: none"> <li>• Less than 2 years</li> <li>• 2-5 years</li> <li>• More than 5 years</li> </ul>	20
<b>Total</b>			<b>91</b>

**Source:** Researcher, 2024.

### 3.7 Sampling Technique

Stratified random sampling is a method used to ensure that specific subgroups within a population are adequately represented in the sample. This technique involves dividing the population into distinct strata, or groups, based on certain characteristics such as department, job role, or experience level, and then randomly selecting participants from each subgroup. By doing so, it reduces sampling error and allows for more precise and efficient estimates compared to simple random sampling (Groves et al., 2009). In this study, stratified random sampling was applied to ensure a representative sample across different departments, job roles, and experience levels within Chalinze DC's M&E system.

The population was divided into three main strata: department (to represent different functional areas), job role (to capture varying levels of involvement in data management), and experience level (to account for differences in expertise with the M&E system). Simple random sampling was then used within each stratum, ensuring that each member had an equal chance of being selected. Proportional allocation was

applied, ensuring that the sample size from each stratum reflected its size in the overall population.

### **3.8 Data Sources**

#### **3.8.1 Primary Data**

A structured questionnaire was the primary tool for gathering data directly from staff involved in data collection, management, and utilization within the M&E system. This closed-ended format allowed for quantitative analysis.

#### **3.8.2 Secondary Data**

Existing documents relevant to the M&E system were reviewed. Examples included departmental manuals, data collection protocols, and M&E policies. These documents provided valuable background information and contextualized the findings from the primary data collection.

### **3.9 Data Collection Tools and Techniques**

Quantitative methods were employed, including a 5-point Likert scale questionnaire. This self-administered questionnaire was distributed to participants to ensure standardized data collection and minimize interviewer bias. Data collection tools were carefully designed to ensure comprehensive coverage of stakeholder engagement practices.

#### **3.10 Data Analysis Procedures**

Data analysis was carried out using SPSS software to ensure systematic and accurate examination of the collected data. To address the study's objectives effectively, several analytical techniques were applied. Descriptive statistics particularly the

mean was calculated to reveal overall trends and to determine the central tendency of responses, offering insight into common patterns within the dataset. Additionally, frequency tables were generated to provide a detailed breakdown of respondent distributions.

These tables were instrumental in evaluating the three key objectives of the study: (i) assessing the accuracy of data collection methods employed in the M&E systems of Chalinze District Council, (ii) examining the consistency of data recording and reporting practices across different departments within the council, and (iii) determining the completeness of data gathered for monitoring and evaluation purposes. This approach allowed for both general and objective-specific insights, strengthening the reliability of the findings.

### **3.11 Validity**

To ensure validity, the research instruments underwent rigorous testing for construct, content, and criterion validity. This included pilot testing the questionnaire, expert reviews, and statistical validation techniques to confirm that the instruments accurately measured the intended constructs and produced reliable data.

### **3.12 Reliability**

To ensure the reliability of the study, the researcher performed a reliability test through SPSS software to generate Cronbach's Alpha ( $\alpha$ ). The larger the value of Cronbach's Alpha, the higher the degree of internal consistency of measurement scales. The acceptance value of Alpha was set at a minimum of 0.70 to justify internal consistency (Devellis, 2003).

### **3.13 Research Ethical Considerations**

To ensure ethical requirements in the conduct of the study, the researcher respected participants' autonomy. Participants had free will to participate in the research without undue influence. The study also ensured that confidentiality was maintained by respecting the anonymity of the respondents during the data collection period.



## CHAPTER FOUR

### PRESENTATION OF THE FINDINGS

#### 4.1 Chapter Overview

This chapter focuses on the presentation of the findings. It presents the demographic characteristics of the respondents and discusses the appropriateness and consistency of data collection methods, completeness of data gathered, and data quality enhancement for Monitoring and Evaluation (M&E) systems.

#### 4.2 Demographic Characteristics of Respondents

##### 4.2.1 Age of Respondent Distribution

**Table 4.2: Age of Respondents**

Age Group	Frequency	Percentage
20-29 years	20	22.0%
30-39 years	22	24.2%
40-49 years	47	51.6%
50-59 years	2	2.2%

**Source:** Field Data (2024).

The table shows percentage of the age of respondents where by the majority of respondents of about (51.6%) fall in the 40-49 age group, followed by 24.2% in the 30-39 age group, followed by 22% in the 20-29 age group and the last of about 2.2% fall in the 50-59 age group, therefore the results indicating that the study population is predominantly middle-aged.

##### 4.2.2 Gender of Respondent Distribution

**Table 4.2: Gender of Respondents**

Gender	Frequency	Percentage
Male	59	64.8%
Female	32	35.2%

**Source:** Field Data (2024).

A notable gender imbalance exists, with males comprising 64.8% of the respondents and females making up 35.2%, suggesting that the majority of personnel involved in the M&E system are male.

#### 4.2.3 Education Level of Respondent Distribution

**Table 4.2: Education Level of Respondents**

Education Level	Frequency	Percentage
Bachelor's degree	55	60.4%
Postgraduate/Diploma	20	22.0%
Master's degree	15	16.5%
Certificate	1	1.1%

**Source:** Field Data (2024).

The results from the table shows the percent of the level of education of the respondent where by majority of the respondent of about 60.4% hold Bachelor's degree, followed by 22% hold Postgraduate/Diploma, followed by 16.5% master's degree and the last of about 1.1% hold certificate, suggesting relatively well-educated workforce in the Monitoring Evaluation M&E system.

#### 4.2.4 Working Experience of Respondent Distribution

**Table 4.2: Working Experience of Respondents**

Years of Experience	Frequency	Percentage
Less than 1 year	9	9.9%
1-5 years	22	24.2%
6-10 years	27	29.7%
More than 20 years	33	36.3%

**Source:** Field Data (2024).

The results shows the percentage of the working experience of the respondents where by majority of the respondents of about 36.3% have more than 20 years of

work experience followed by 29.7% who have worked between 6-10 years, while 24.2% with 1-5 years of experience and the last of about 9.9% have less than one year of experience. The findings suggest that the majority of the respondents have moderate experience in their professional roles, which may contribute positively to the reliability of the data collected.

### 4.3 Appropriate Data Collection Methods

#### 4.3.1 Use of Surveys

**Table 4.3: Use of Surveys**

Category	Frequency	Mean	Percentage
Strongly Agree	10	3.36	11.0%
Agree	44		48.4%
Neutral	13		14.3%
Disagree	19		20.9%
Strongly Disagree	5		5.5%

**Source:** Field Data (2024).

The results shows respondents' perceptions regarding the use of surveys in the M&E (Monitoring and Evaluation) system where by majority of the respondents of about 48.4% agreed while 11% strongly agreed, combined total of 59.4%, this indicates a positive attitude towards the use of surveys in the M&E processes, also 20.9% disagreed and 5.5% strongly disagreed, making a combined of 26.4% who did not support the use of surveys, but the smaller group 14.3% remained neutral. The mean score of 3.36 also supports the observation that the use of surveys is generally viewed favorably by the majority of the respondents. Therefore, findings suggest that surveys are a favored method for data collection in the M&E system.

#### 4.3.2 Use of Interviews

**Table 4.3: Use of Interviews**

Category	Frequency	Mean	Percentage
Strongly Agree	14	3.60	15.4%
Agree	50		54.9%
Neutral	7		7.7%
Disagree	17		18.7%
Strongly Disagree	3		3.3%

**Source:** Field Data (2024).

The table shows the response on the use of interviews as an effective of data collection in monitoring and evaluation activities, where by a significant majority of the respondent of about 70.3% (54.9% agree and 15.4% who strongly agree) view interviews as a useful tool in ensuring data quality and comprehensiveness, while a smaller group 22% (18.7% disagree and 3.3% strongly disagree) express disagreement and only 7.7 % remained neutral, the mean score of 3.6 further confirms that interviews are effective in data collection. Therefore, this suggests that interviews are a trusted and valued method for data collection.

#### 4.3.3 Use of Administrative Data

**Table 4.3: Use of Administrative Data**

Category	Frequency	Mean	Percentage
Strongly Agree	5	2.99	5.5%
Agree	33		36.3%
Neutral	14		15.4%
Disagree	32		35.2%
Strongly Disagree	7		7.7%

**Source:** Field Data (2024).

The table presents the percent of the respondent's views on the use of administrative data where by 36.3% agreed that administrative data is used effectively, while a notable 35.2% disagreed, and 7.7% strongly disagreed, suggesting that over 42% of the respondents are dissatisfied with the usage of administrative data, while 15.4% remained neutral, and only 5.5% strongly agreed, indicating very few respondents have full confidence in the use of administrative data the mean score of 2.99 is close to neutral (3), suggesting a mixed perception among respondents learning slightly toward agreement but not strongly.

#### 4.3.4 Daily Data Collection

**Table 4.3: Daily Data Collection**

Category	Frequency	Mean	Percentage
Strongly Agree	8	2.94	8.8%
Agree	28		30.8%
Neutral	14		15.4%
Disagree	35		38.5%
Strongly Disagree	6		6.6%

**Source:** Field Data (2024).

The results shows the percents of the respondent on daily data collection where by majority of the respondents of about 38.5% were disagreed, followed by 30.8% agreed, followed by 15.4% remained neutral, followed by 8.8% strongly agreed and the last of about 6.6% strongly disagreed. The mean score of 2.94 indicates learning toward disagreement, but still relatively close to neutral. Therefore, the data indicating the combined results of about 45.1% of the respondents do not believe that daily data collection is effectively conducted while combined results of about 39.6% agreed with daily data collection is conducted. The findings suggest that the

significant proportion of respondents perceive daily data collection practices as insufficient applied.

#### 4.4 Consistency of Data Recording Tool Operations

##### 4.4.1 Data Standardization

**Table 4.4: Data Standardization**

Category	Frequency	Mean	Percentage
Strongly Agree	5	3.08	5.5%
Agree	37		40.7%
Neutral	14		15.4%
Disagree	28		30.8%
Strongly Disagree	7		7.7%

**Source:** Field Data (2024).

The results show the varied perceptions among respondents regarding the standardization of data recording tools where by majority of the respondent of about 40.7% were agreed that the tools used for data recording are standardized, while 30.8% disagreed, while 15.4% remained neutral, while 7.7% strongly disagreed and only few majorities of about 7.7% strongly agreed. The mean score of 3.08 falls around the neutral mark on a Likert scale, therefore the results suggesting that the overall the respondents were moderately satisfied about the standardization of data tools in use.

##### 4.4.2 Data Reconciliation

**Table 4.4: Data Reconciliation**

Category	Frequency	Mean	Percentage
Strongly Agree	8	3.16	8.8%
Agree	38		41.8%
Neutral	13		14.3%
Disagree	26		28.6%
Strongly Disagree	6		6.6%

**Source:** Field Data (2024).

The table shows responses to the statement related to data reconciliation where by majority of the respondents of about 41.8% agreed that data reconciliation is practiced, followed by 28.6% disagreed, followed by 14.3% who remained neutral, the smaller portion 8.8% strongly agreed and the last of about of about 6.6% strongly disagreed. The mean score of 3.16 suggests a tendency toward moderate agreement, therefore the results indicate that most respondents recognize and presence of data reconciliation processes and also indicating the importance of aligning and correcting data across systems to ensure consistency.

#### 4.4.3 Consistent Tool Operation

**Table 4.4: Consistent Tool Operation**

Category	Frequency	Mean	Percentage
Strongly Agree	6	3.19	6.6%
Agree	39		42.9%
Neutral	17		18.7%
Disagree	24		26.4%
Strongly Disagree	5		5.5%

**Source:** Field Data (2024).

The table shows the response on the tools used in monitoring and evaluation (M&E) operations are consistent where by majority of the respondents of about 42.9% agreed that tools were operated consistently, while 26.4% disagreed, while 18.7% remained neutral, while 6.6% strongly disagreed and the last respondents of about 5.5% strongly disagreed. The mean score of 3.19 suggests a moderately positive perception, therefore the results show the there is a need for stable, reliable data recording tools across various operations.

#### 4.4.4 Regular Tool Updates

**Table 4.4: Regular Tool Updates**

Category	Frequency	Mean	Percentage
Strongly Agree	10	3.28	11.0%
Agree	39		42.9%
Neutral	14		15.4%
Disagree	23		25.3%
Strongly Disagree	5		5.5%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on regular tool updates where by majority of the respondents of about 42.9% agreed there is regular tool updates, followed by 25.5% disagreed, followed by 15.4% remained neutral, followed by 11% strongly agreed and the last of about 5.5% strongly disagreed with regular tool updates, therefore the results shows that Regular tool updates are generally viewed positively, with 53.9% in favor, suggesting that keeping data recording tools up to date is considered important for maintaining data quality and functionality.

#### 4.5 Completeness of Data Gathered for M&E Purposes

##### 4.5.1 Methods Ensure Complete Data

**Table 4.5: Methods Ensure Complete Data**

Category	Frequency	Mean	Percentage
Strongly Agree	3	3.07	3.3%
Agree	40		44.0%
Neutral	14		15.4%
Disagree	29		31.9%
Strongly Disagree	5		5.5%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on the effectiveness of data collection method in ensuring completeness of data within the Monitoring and Evaluation (M&E) system. where by 47.3% of respondents (44%



agree and 3.3% disagree), believe the methods used help ensure complete data while 37.4% of respondents (31.9% disagree and 5.5% strongly disagree) are not confident in the methods ability and 15.4% remained neutral, the mean score of 3.07 which is above the neutral, shows that there may be challenges or gaps in the methods used for data completeness.

#### 4.5.2 Strategies for Addressing Data Gaps

**Table 4.5: Strategies for Addressing Data Gaps**

Category	Frequency	Mean	Percentage
Strongly Agree	5	2.98	5.5%
Agree	32		35.2%
Neutral	15		16.5%
Disagree	32		35.2%
Strongly Disagree	7		7.7%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on strategies for addressing data gaps within monitoring and evaluation system where by 40.7% of respondents (35.2% agree and 5.5% disagree), while 43% of respondents (35.3% disagree and 7.7% strongly disagree) and 16.5% remained neutral, the mean score of 2.98 which is below the neutral suggests a lack of strong confidence in existing mechanism, therefore the results implies that there is a critical need to strengthen and implement effective strategies to identify and fill data gaps in M&E processes.

#### 4.5.3 M&E System Captures All Data

**Table 4.5: M&E System Captures All Data**

Category	Frequency	Mean	Percentage
Strongly Agree	5	3.07	5.5%
Agree	37		40.7%
Neutral	15		16.5%
Disagree	28		30.8%
Strongly Disagree	6		6.6%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on regarding the extent to which the monitoring and evaluation (M&E) system captures all necessary data where by 46.2% of respondents (40.7% agree and 5.5% strongly agree) shows that system effectively captures all data, while 37.4% of respondents (30.8% disagree and 6.6% strongly disagree) express doubts, while 16.5% of the respondents remained neutral, the mean score of 3.07, slightly above neutral reflects learning towards agreement though not strongly, therefore the results shows that there is a need to improve coverage, consistency, and confidence in data capture processes within the M&E framework.

#### 4.5.4 Comprehensive Data Gathered

**Table 4.5: Comprehensive Data Gathered**

Category	Frequency	Mean	Percentage
Strongly Agree	6	3.09	6.6%
Agree	37		40.7%
Neutral	14		15.4%
Disagree	28		30.8%
Strongly Disagree	6		6.6%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on regarding the comprehensiveness of data gathered in monitoring and evaluation process where by 47.3% of respondents (40.7% agree and 6.6% strongly agree) believe that the data collected is comprehensive, while 37.4% (30.8% disagree and 6.6% strongly disagree) express dissatisfaction and only 15.4% remained neutral, the mean score 3.09, slightly above the neutral point, suggests that while many recognize efforts toward comprehensive data collection, confidence is not enough therefore there is concerns about the ability of the M&E system to gather complete and comprehensive data.

## 4.6 Enhanced Data Quality

### 4.6.1 Methods Enhance Data Quality

**Table 4.6: Methods Enhance Data Quality**

Category	Frequency	Mean	Percentage
Strongly Agree	6	3.21	6.6%
Agree	42		46.2%
Neutral	13		14.3%
Disagree	25		27.5%
Strongly Disagree	5		5.5%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on the role that data collection methods play in enhancing data quality where by 52.8% of respondents (46.2% agree, 6.6% strongly agree) support the idea that methods enhance data quality, while 33% (27.5% disagree, 5.5% strongly disagree) express disagreement and only 14.3% remained neutral, the mean score 3.21 supports the conclusion that perceptions lean positively although not strongly. The results indicating there is still room for improvement in the quality enhancement methods.

### 4.6.2 Tool Consistency Enhances Quality

**Table 4.6: Tool Consistency Enhances Quality**

Category	Frequency	Mean	Percentage
Strongly Agree	5	2.98	5.5%
Agree	33		36.3%
Neutral	13		14.3%
Disagree	33		36.3%
Strongly Disagree	7		7.7%

**Source:** Field Data (2024).

The results show the percentage on the perception of the respondents on whether tool consistency contributes to data quality where by 41.8% (36.3% agree, 5.5% strongly agree) support the idea that consistent use of tools enhance quality, while 44% (36.3% disagree, 7.7% strongly disagree) express disagreement and only 14.3% remained neutral, the mean score 2.98 just below neutral suggests that confidence in the role of tool consistency in improving quality is relatively weak. This highlights a need for more consistent tools in the data collection and analysis process to ensure quality improvement.

#### 4.6.3 Measures Ensure Data Quality

**Table 4.6: Measures Ensure Data Quality**

Category	Frequency	Mean	Percentage
Strongly Agree	6	2.99	6.6%
Agree	32		35.2%
Neutral	13		14.3%
Disagree	33		36.3%
Strongly Disagree	7		7.7%

**Source:** Field Data (2024).

Table 4.6 shows percentage of Measures to ensure data quality where by majority of the respondents of about 35.2% agreed that measures ensure data quality, while 36.3% disagreed, while 14.3% remained neutral, while 7.7% strongly disagreed and the last of about 6.6% strongly agreed. The mean score 2.99 which is just below the neutral midpoint suggest that overall confidence in data quality assurance measures is relatively weak, the results indicating that the current measures may not be sufficiently effective or consistent, therefore there is a need to strengthen data quality and enhance awareness in monitoring evaluation (M&E) processes.

#### 4.6.4 Data Quality Improved Over Time

**Table 4.6: Data Quality Improved Over Time**

Category	Frequency	Mean	Percentage
Strongly Agree	11	3.20	12.1%
Agree	36		39.6%
Neutral	11		12.1%
Disagree	27		29.7%
Strongly Disagree	6		6.6%

**Source:** Field Data (2024).

The Table 4.6 shows the distribution of the respondents regarding perception of data quality improvement where by majority of the respondent of about 39.6% agreed while 29.7% disagreed, while 12.1% remained neutral and strongly agreed and the last of about 6.6% strongly disagreed. The results indicating that more than half of the respondent of about 51.7% acknowledged improvements in data quality over time, indicating that data quality has improved over time,

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS**

#### **5.1 Chapter Overview**

This chapter interprets the results presented in Chapter 4, relating them to the research questions and existing literature. The discussion will focus on the key areas of data collection methods, consistency of data recording tools, completeness of gathered data, and data quality enhancement in the context of Monitoring and Evaluation (M&E) systems.

#### **5.2 Appropriate Data Collection Methods**

##### **5.2.1 Use of Surveys**

The findings reveal a pronounced preference for surveys as a data collection method among M&E professionals, the use of surveys showed positive perceptions, with 59.4% of respondents agreeing or strongly agreeing on its effectiveness and a mean score of 3.36, indicating moderate confidence in surveys as a reliable method of data collection. This predilection aligns with the empirical evidence presented by Bamberger et al. (2021), who posit that despite technological advancements, many organizations continue to rely heavily on these conventional methods due to their perceived reliability and familiarity. The positive disposition towards surveys suggests that practitioners value their capacity to gather standardized data from large populations. However, this preference may also indicate a potential reluctance to explore more innovative data collection methodologies.

From a theoretical perspective, this tendency can be understood through the lens of the Technology Acceptance Model (TAM) proposed by Davis (1989). The TAM

posits that perceived usefulness and ease of use are primary determinants of technology adoption. In this context, the familiarity and perceived reliability of surveys may be outweighing the potential benefits of more advanced data collection methods, thereby influencing practitioners' choices.

### **5.2.2 Use of Interviews**

The findings shows that the total 70.3% of respondents support the use of interviews for data collection, with high mean of 3.6, indicating strong confidence in the methods effectiveness. This strong preference indicates that M&E professionals place significant value on the depth and flexibility of information that interviews can provide. The high regard for interviews aligns with the findings of Walshe et al. (2020), who emphasized the importance of qualitative data in understanding complex social phenomena. From a methodological standpoint, this preference for interviews can be contextualized within the broader debate of quantitative versus qualitative approaches in social research. As articulated by Creswell and Creswell (2018), qualitative methods, such as interviews, offer rich, context-specific insights that are particularly valuable in understanding the nuances of program implementation and impact. However, this predilection also raises pertinent questions about the scalability and resource-intensiveness of this method, especially in large-scale evaluations (Patton, 2015).

### **5.2.3 Use of Administrative Data**

The findings indicate the use of administrative data revealed mixed perceptions, with only 41.8% expressing confidence and a relatively low mean of 2.99, suggesting limited trust in existing administrative records as reliable data sources. The

utilization of administrative data elicited a polarized response among respondents, indicating a lack of consensus on its value in M&E systems. This ambivalence suggests potential challenges in integrating administrative data into existing M&E frameworks. Kumi et al. (2022) posit that the effective use of administrative data can significantly enhance the responsiveness and effectiveness of development interventions.

The mixed response highlights a need for better understanding and strategies to leverage administrative data effectively. Potential barriers might include data quality concerns, accessibility issues, or lack of expertise in analyzing such data, as noted by Görgens and Kusek (2023). From a theoretical perspective, this ambivalence can be understood through the lens of the Data-Information-Knowledge-Wisdom (DIKW) hierarchy (Ackoff, 1989). The challenge lies in effectively transforming administrative data (at the 'Data' level) into actionable insights (at the 'Wisdom' level) within M&E contexts.

#### **5.2.4 Daily Data Collection**

Daily data collection faced the most resistance among respondents, suggesting skepticism towards frequent data collection methods, because majority 45.1% disagreed or strongly disagreed, and the mean score of 2.94 reflects a lack of consistency and possibly limited implementation of daily monitoring practices. In contrast, this resistance may stem from concerns about resource intensiveness, data overload, or doubts about the added value of daily data. However, as Kumi et al. (2022) argue, real-time data analysis is crucial for agile M&E systems in rapidly changing environments. This resistance can be analyzed through the lens of the



Innovation Diffusion Theory (Rogers, 2003). The skepticism towards daily data collection may represent the 'early majority' or 'late majority' stages of innovation adoption, where practitioners are cautious about embracing new methods until their benefits are clearly demonstrated. Overcoming this resistance could be key to developing more responsive and adaptive M&E systems, as advocated by adaptive management theorists (Patton, 2011).

### **5.3 Consistency of Data Recording Tool Operations**

#### **5.3.1 Data Standardization**

The study reveals a cautiously positive attitude towards data standardization, due to slightly more positive support, with 46.2% in agreement and a mean of 3.08, indicating a fair level of perceived effectiveness in ensuring consistency in data formats and definitions, but with significant room for improvement. This finding echoes the work of Walshe, et al., (2020), who emphasizes the importance of consistent data recording practices for ensuring data reliability and comparability. The mixed responses suggest that while there is recognition of the importance of standardization, implementation remains challenging.

From a theoretical perspective, this can be understood through the lens of Institutional Theory (DiMaggio & Powell, 1983). The resistance to standardization may reflect the tension between institutional isomorphism (the push towards standardization) and organizational inertia (the tendency to maintain existing practices). Barriers might include resistance to change, resource constraints for implementing new standards, or difficulties in aligning diverse data sources across different institutional contexts.

### **5.3.2 Data Reconciliation**

Data reconciliation exhibited slightly more positive results compared to standardization, practices were perceived positively by 50.6% of respondents, reflected by a mean score of 3.16, showing moderate confidence in the process of verifying and harmonizing data suggesting a growing recognition of the importance of aligning data from different sources. However, the significant proportion of disagreement indicates persistent challenges in this area. As noted by Görgens and Kusek (2023), effective data reconciliation is crucial for maintaining data integrity in M&E systems. This can be analyzed through the framework of Data Quality Management (DQM) as proposed by Wang, et al., (1995). The mixed responses highlight the need for improved processes and tools for data reconciliation, as well as capacity building to ensure staff can effectively harmonize data from various sources. The challenges in data reconciliation may stem from what Wang et al. describe as the multi-dimensional nature of data quality, encompassing accuracy, relevance, timeliness, and completeness.

### **5.3.3 Consistent Tool Operation**

The findings indicates that consistent tool operation received relatively high approval, with 49.5% of participants agreeing or strongly agreeing and a mean of 3.19, suggesting that when tools are used consistently, they contribute meaningfully to improving data quality. This suggests ongoing difficulties in implementing uniform data recording practices across organizations. As pointed out by Görgens and Kusek (2023), inconsistent tool operations can lead to data discrepancies, making it difficult to draw accurate conclusions and inform decision-making processes effectively.

From a theoretical standpoint, this can be understood through the lens of Socio-Technical Systems Theory (Bostrom & Heinen, 1977). This theory posits that the effectiveness of technical systems (in this case, M&E tools) is heavily influenced by social factors such as user acceptance, organizational culture, and work practices. Improving consistency in tool operation may thus require not only enhanced training and clearer guidelines but also a holistic approach that addresses the social and organizational contexts in which these tools are used.

#### **5.3.4 Regular Tool Updates**

The findings shows that Regular tool updates are generally viewed positively, with 53.9% in favor and 30.8% disagreeing, regular tool updates received the most positive response in this category, indicating recognition of the importance of keeping data collection tools current. This aligns with the concept of continuous improvement in quality management systems (Deming, 1986). However, the significant minority who disagreed indicates potential resistance to change or resource constraints in implementing updates. This can be analyzed through the framework of the Dynamic Capabilities Theory (Teece, et al., 1997). Regular updates to M&E tools represent an organization's ability to integrate, build, and reconfigure internal competences to address rapidly changing environments. The challenges in implementing regular updates may reflect the difficulties organizations face in developing and maintaining these dynamic capabilities in resource-constrained environments.

### **5.4 Completeness of Data Gathered for M&E Purposes**

#### **5.4.1 Methods Ensure Complete Data**

The findings reveal that nearly half 47.3% of respondents believe methods ensure

complete data, but 37.4% disagree, so a mixed perception of whether current methods ensure complete data collection. This aligns with the findings of Waithera and Wanyoike (2021), who identified data incompleteness as a persistent challenge in M&E systems across various sectors. The lack of strong consensus suggests that current data collection methods may have gaps or limitations that prevent comprehensive data gathering. This can be understood through the lens of the Total Data Quality Management (TDQM) framework proposed by Wang (1998). The TDQM cycle emphasizes the need for continuous improvement in defining, measuring, analyzing, and improving data quality. The mixed responses indicate that organizations may be at different stages of this cycle, with some still struggling to effectively define and measure data completeness.

#### **5.4.2 Strategies for Data Gaps**

The findings show that perceptions on data gap are evenly split, with 40.7% in agreement and 43% disagreement, therefore opinions on strategies for addressing data gaps were notably divided, suggesting a lack of confidence in current approaches to filling data gaps. As argued by Maalim (2021), incomplete data can lead to biased results and flawed decision-making. The mixed responses indicate that organizations may be struggling to develop effective strategies for identifying and addressing data gaps. This challenge can be analyzed through the lens of Information Theory (Shannon, 1948) and its applications to data management.

The concept of entropy in information theory provides a framework for understanding the uncertainty and incompleteness in data systems. Developing more robust strategies for addressing data gaps may require a more systematic approach to

identifying and quantifying information gaps, and developing targeted strategies to reduce entropy in M&E data systems.

#### **5.4.3 M&E System Captures All Data**

The finding indicates that almost half 46.2% believe the Monitoring Evaluation (M&E) system captures all data, while 37.4% disagreement. Regarding the M&E system's ability to capture all necessary data, responses indicated a slightly positive but not overwhelmingly confident stance. This suggests potential gaps in current M&E systems' comprehensiveness, a concern echoed in the literature by Tirivayi et al. (2022). This can be understood through the concept of Information Systems Success Model (DeLone & McLean, 2003). The model posits that system quality, information quality, and service quality contribute to user satisfaction and ultimately to net benefits. The lack of strong agreement implies that existing M&E systems may not be fully optimized across these dimensions, particularly in terms of information completeness.

#### **5.4.4 Comprehensive Data Gathered**

The findings indicating that nearly half 47.3% of respondents believe data collected is comprehensive, while 37.4% express concerns. Similar to the previous point, responses on whether comprehensive data is gathered indicated a cautiously positive view but highlighted the need for improvement. This suggests that while efforts are being made to gather comprehensive data, there are still significant challenges in achieving this goal. This can be analyzed through the lens of the Data-Information-Knowledge-Wisdom (DIKW) hierarchy (Ackoff, 1989). The challenge of gathering comprehensive data reflects the difficulties in moving from the 'Data' level to the

'Information' level in the DIKW pyramid. Organizations may need to reassess their data gathering strategies, potentially expanding the scope of their data collection efforts or implementing more holistic approaches to capturing program-related information.

## **5.5 Enhanced Data Quality**

### **5.5.1 Methods Enhance Data Quality**

The findings show over half of respondents of about 52.8% agree that methods enhance data quality, while 33% express concerns and the mean 3.21 indicate a moderately positive perception of current quality enhancement efforts. However, the significant minority who disagreed indicates ongoing challenges in this area, as noted by Munyao and Mbithi (2023) in their study of M&E data quality in health projects. This can be understood through the framework of Total Quality Management (TQM) as applied to data management (Wang et al., 1998). The mixed responses suggest that while TQM principles are being applied to some extent in M&E data management, there is room for more comprehensive and systematic implementation of quality enhancement processes.

### **5.5.2 Tool Consistency Enhances Quality**

The findings indicating respondents are split on the value of tool consistency in ensuring data quality, with 44% disagreeing and 41.8% agreeing therefore opinions on whether tool consistency enhances quality were notably divided, suggesting skepticism about the impact of tool consistency on data quality. This aligns with Görgens and Kusek's (2023) observations on the challenges of maintaining consistent data quality across different tools and systems. This can be analyzed through the lens of the

Technology-Organization-Environment (TOE) framework (Tornatzky & Fleischer, 1990). The mixed responses indicate that merely having consistent tools (the technology aspect) may not be sufficient to ensure data quality without considering organizational and environmental factors that influence data management practices.

### **5.5.3 Measures Ensure Data Quality**

The findings indicating that majority of respondents expressed low confidence in the measures used to ensure data quality, with 44% disagreeing, while only 41.8% agreed indicating the need for improved data quality control in the system. This ambivalence aligns with recent research by Munyao and Mbithi (2023), who found that many organizations struggle to implement robust data quality frameworks despite recognizing their importance. This can be understood through the concept of Data Quality Assessment Frameworks (DQAF) as proposed by international organizations like the IMF (2003). The mixed perceptions suggest that current quality assurance measures may be inadequate or inconsistently applied when standards are measured against comprehensive DQAF.

### **5.5.4 Data Quality Improved Over Time**

The study indicating that 51.7% of respondents agreed and strongly disagreed that data quality has improved over time, indicating positive perception. While 36.3% expressed disagreement and 12.1% remained neutral, showing that a more positive trend was observed regarding improvement in data quality over time. This suggests that while current measures may be perceived as inadequate, there is recognition of gradual improvement. As suggested by Tirivayi et al. (2022), continuous improvement in data quality should be a core focus of M&E systems. This can be analyzed through

the lens of Continuous Improvement Theory, particularly the Plan-Do-Check-Act (PDCA) cycle (Deming, 1986). The positive perception of improvement over time indicates that ongoing efforts to enhance data quality are having some impact, reflecting successful implementation of PDCA cycles in data quality management.



## **CHAPTER SIX**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Chapter Overview**

This chapter focuses on the presentation of the conclusions and recommendations derived from the study. It synthesizes the findings into theoretical and managerial conclusions, offers actionable recommendations, and suggests areas for further research.

#### **6.2 Conclusions**

The assessment of data quality factors in Monitoring and Evaluation (M&E) within Chalinze District shows that while interviews are perceived as a reliable method for enhancing data quality evidenced by 70.3% of respondents expressing agreement with mean score of 3.6, other areas demonstrate varied perceptions. Specifically, only 40.7% agreed that the M&E system effectively captures all data, and only 41.8% believed that strategies to address data gaps are effective, indicating limited confidence in data completeness and strategic interventions. Additionally, practices such as consistent tool operation and data reconciliation received mixed responses, with agreement levels around 36% up to 40%, highlighting inconsistencies in application. These insights underscore the necessity for strengthening data collection frameworks, standardizing and regularly updating tools, and enhancing strategic efforts to address data gaps, thereby ensuring high-quality M&E processes across public sectors in Chalinze District

##### **6.2.1 Theoretical Conclusions**

The study reveals a strong preference for traditional data collection methods such as surveys and interviews among M&E professionals. This aligns with the Technology

Acceptance Model (TAM), which highlights perceived usefulness and ease of use as key factors in technology adoption. Although these methods are valued for their reliability and familiarity, there is a need to balance them with innovative techniques to enhance data richness and agility.

The mixed responses regarding data standardization and reconciliation reflect ongoing challenges between institutional pressures and organizational inertia, consistent with Institutional Theory. The findings also align with the Total Data Quality Management (TDQM) framework, which emphasizes continuous improvement in data quality processes. The cautiously positive views on data quality enhancement underscore the importance of adopting holistic approaches that consider technological, organizational, and environmental factors, as suggested by the Technology-Organization-Environment (TOE) framework.

### **6.2.2 Managerial Conclusions**

From a managerial perspective, the reliance on surveys and interviews indicates comfort with established methods, ensuring reliable and in-depth information. However, managers should also explore the benefits of integrating innovative techniques for more timely and nuanced insights. Challenges in data standardization and reconciliation highlight the need for improved training, clear guidelines, and capacity building. Managers must foster a culture that values consistent data practices and support these efforts with adequate resources and incentives to overcome resistance to change. Addressing data completeness requires developing comprehensive strategies guided by TDQM principles and engaging stakeholders in continuous feedback loops. Enhancing data quality involves a holistic approach

addressing technological, organizational, and environmental factors. The positive trend in perceived data quality improvement reflects the effectiveness of ongoing efforts, underscoring the importance of continuous improvement processes.

### **6.3 Recommendations**

According to the findings, it is recommended that Chalinze District enhance its data collection approaches by prioritizing the use of interviews, which were the most positively rated method (70.3%). The district should also ensure that all monitoring and evaluation tools are standardized and updated regularly to promote consistency and accuracy. Due to the low agreement (40.7%) on the presence of effective strategies to bridge data gaps, it is essential to develop and implement clear mechanisms to address these gaps. Establishing consistent data review routines will also support improved data completeness and timeliness.

Moreover, investing in staff training to strengthen skills in data quality management, along with improving collaboration between departments, will help achieve uniformity in reporting and strengthen data verification across all public sector entities engaged in M&E. organizations should explore and integrate innovative data collection methods, such as mobile surveys, online platforms, and real-time data analytics, to complement traditional techniques. Investing in training programs and developing comprehensive guidelines for data standardization and reconciliation can improve consistency and reliability in data recording practices.

### **6.4 Areas for Further Study**

Further research is needed to explore the effectiveness of innovative data collection techniques in different M&E contexts. Comparative studies can provide insights into

the benefits and challenges of integrating these methods with traditional approaches, offering a more comprehensive understanding of their potential impact. Additionally, investigating the role of organizational culture in influencing data standardization and reconciliation practices can provide deeper insights into the barriers to consistency in data recording. This research can inform strategies to foster cultures that prioritize data quality and support the implementation of consistent data practices. Longitudinal studies examining the impact of different quality assurance frameworks over time can provide valuable insights into best practices for enhancing data quality in M&E systems.

These studies can help identify key factors contributing to successful implementation and continuous improvement. Furthermore, research on the role of emerging technologies, such as artificial intelligence and machine learning, in enhancing data quality can offer new perspectives on how these tools can be effectively integrated into M&E systems. This can inform future technological investments and innovations, contributing to the development of more efficient and effective M&E practices.

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## APPENDICES

### Appendix I: Likert Scale

Hello, **Agricola Surumbu** a Master of Arts in Monitoring and Evaluation student at open University in Tanzania, conducting a study on the " factors influencing data quality in monitoring and evaluation for public sector performance at Chalinze District Council in Tanzania" As part of my research, I am utilizing a 5-point Likert scale to gather valuable insights. Please provide your responses by selecting the appropriate numerical value for each question. Your honest feedback is crucial to understanding the factors influencing data quality in monitoring and evaluation for public sector performance at Chalinze District Council. Thank you for your participation, and rest assured that your responses will be handled with the utmost ethical considerations.

**Put a tick on most corrected answer**

No.	SECTION A-Demographic Characteristics	
	Question	Options
1	What is your age?	<input type="radio"/> 20-29 years <input type="radio"/> 30-39 years <input type="radio"/> 40-49 years <input type="radio"/> 50-59 years <input type="radio"/> 60 years and above
2	What is your gender?	<input type="radio"/> Male <input type="radio"/> Female
3	What is your highest level of education?	<input type="radio"/> Bachelor's degree, <input type="radio"/> Master's degree, <input type="radio"/> Doctorate degree
5	How many years of experience do you have in your current field?	<input type="radio"/> Less than 1 year, <input type="radio"/> 1-5 years, <input type="radio"/> 6-10 years <input type="radio"/> More than 20 years

*Put a tick on most corrected answer*

Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Appropriate Data Collection Methods</b>					
I frequently use surveys to collect data for M&E purposes.					
Interviews are a common data collection method in our M&E system.					
We primarily rely on administrative data for M&E activities.					
Data for M&E is collected on a daily basis in our department.					
<b>Consistency of Data Recording Tool Operations</b>					
Data standardization is consistently applied in our data recording.					
Data reconciliation is a common practice in our data recording operations.					
Our data recording tools operate consistently across different data types.					
We regularly update our data recording tools to maintain their consistency					
<b>Completeness of Data Gathered for M&amp;E Purposes</b>					
Our data collection methods ensure complete data for M&E purposes.					
We have strategies in place to address any gaps in data collection for M&E.					
Our M&E system is capable of capturing all necessary data.					
The data gathered for M&E purposes is comprehensive and leaves no room for ambiguity.					
Our data collection methods ensure complete data for M&E purposes.					
<b>Enhanced Data Quality</b>					
Our data collection methods enhance the quality of data for M&E purposes.					
The consistency of our data recording tool operations enhances data quality.					
We have measures in place to ensure the quality of data used in M&E.					
The quality of our data has improved over time due to our M&E practices.					

## Appendix II: Data Collection letter



UNITED REPUBLIC OF TANZANIA  
PRESIDENT'S OFFICE  
REGIONAL ADMINISTRATION AND LOCAL  
GOVERNMENT AUTHORITY  
CHALINZE DISTRICT COUNCIL



(All letters should be addressed to the District Executive Director)

In reply please quote:

REF.NO. HWC/A.11/18/4

04/07/2024

OPEN UNIVERSITY OF TANZANIA  
P.O. BOX 23409,  
DAR ES SALAAM, TANZANIA

### REF: REQUEST FOR CONDUCT RESEARCH.

Please refer to the heading mentioned above.

2. The Office of Executive Director of Chalinze District Council has received a letter with Ref. No. OUT/PG202285936 dated 03/07/2024 which mentions the student Ms. Agricola Surumbu with Reg.No:PG202285936 a Student from Open University of Tanzania who pursuing Masters of Arts in Monitoring and Evaluation (MAME) request to conducting research on "Factors Influencing Data Quality in Monitoring and Evaluation of Public Sectors in Chalinze District " and collect Data at Chalinze District Council (HQ).
3. With this letter, I am glad to notify you that research attachment request for the mentioned student has been accepted. This permit will be start on date 01/07/2024 to 31/07/2024.
4. With regards.

  
Ramadhani S. Possi

DISTRICT EXECUTIVE DIRECTOR  
CHALINZE

