

**THE ROLE OF MONITORING AND EVALUATION ON PERFORMANCE
OF ROAD CONSTRUCTION PROJECTS IN TANZANIA: A CASE OF
TANROADS DAR ES SALAAM**

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled, “**The role of Monitoring and Evaluation on performance of road construction projects in Tanzania**” the case of **TANROADS Dar es Salaam**; in partial fulfillment of the requirement for the degree of Masters in Monitoring and Evaluation of the Open University of Tanzania.

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DECLARATION

I, **Benignus Anacret Rwechungura**, declare that, the work presented in this dissertation 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 fulfilment 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

DEDICATION

Firstly, I dedicate this work to my Almighty God for the successful completion of my Master's Degree at the Open University of Tanzania. Secondly, this work is dedicated to the Open University of Tanzania as it is the main beneficiary of the study results for it can use the recommendations to improve more the programs offered at OUT for better performance of employees. Lastly but not least, I dedicate this work to all members of my family who have been on my side for courage and inspiration throughout the process of undertaking this study.

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ABSTRACT

The study examined the role of monitoring and evaluation on performance of road construction projects in Tanzania. The study was guided by three research objectives which were to assess the quality of monitoring and evaluation practices, to analyze the role of user's organizations in monitoring and evaluation of road construction projects and to examine the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania. The study used mixed research methods under the case study research design. The study applied descriptive statistics and thematic analysis in data analysis. Respondents agreed that there is quality monitoring and evaluation practices in Road Construction Projects in Tanzania. Identified that monitoring and evaluation process in road construction projects are well-structured and comprehensive (mean =3.00), stakeholders are actively involved in the monitoring and evaluation process of road construction projects(Mean =3.00), monitoring and evaluation practices in road construction projects effectively identify issues and challenges for timely resolution (Mean= 3.00), monitoring and evaluation findings are used to inform decision-making and improve the quality of road construction projects (Mean = 3.00), road construction project teams receive regular training and capacity building in monitoring and evaluation practices (Mean = 3.00), and monitoring and evaluation reports are clear, concise, and accessible to all relevant stakeholders involved in road construction projects (Mean =3.00). Also, respondents established that user's organizations do not have clear communication channels with consultants for effective monitoring and evaluation (Mean =2.00), they do not take responsibility for addressing challenges identified during monitoring and evaluation processes (Mean =2.00), they do not ensure that project data, information, and provided facilities and services are available to all stakeholders(Mean =2.00), they do not set transparent criteria for the selection of consultants and service providers in road construction projects(Mean = 2.00), and they do not define and communicate their objectives and goals clearly to all stakeholders involved in road construction projects (Mean 2.81). Furthermore, respondents established that monitoring and evaluation processes are not clearly defined and understood by all stakeholders (mean = 2.671), monitoring and evaluation planning do not include regular progress reporting and performance assessment (Mean = 2.00), monitoring and evaluation planning do not effectively identify and addresses potential risks and challenges in road construction projects (Mean = 2.85), monitoring and evaluation planning do not establish clear roles and responsibilities for all stakeholders (Mean = 2), monitoring and evaluation planning do not allocate adequate time for quality assessments and improvements (Mean = 2.051), the implementation of monitoring and evaluation planning ensures timely completion of road construction projects (Mean = 1.978), monitoring and evaluation planning do not include a quality assurance plan to enhance project outcomes (Mean = 2.629), monitoring and evaluation planning ensure that stakeholder expectations are met throughout the project lifecycle (Mean = 2.88), and the quality of workmanship in road construction projects is not directly influenced by effective monitoring and evaluation planning (Mean = 2.62). Recommendations include strengthening M&E systems, policies, and action plans, as well as allocating sufficient resources and time for M&E activities.

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LIST OF ABBREVIATIONS AND ACRONYMS

CEM	:	Country Economic Memorandum
CQA	:	Construction Quality Assurance
DMDP	:	Dar es Salaam Metropolitan Development Project
IDA	:	International Development Association
M&E	:	Monitoring and Evaluation
NBS	:	National Bureau of Statistics (Tanzania)
OUT	:	The Open University of Tanzania
PMO-RALG	:	Prime Minister's Office, Regional Administration and Local Gover
QMS	:	Quality Management Systems
SDG	:	Sustainable Development Goals
SPSS	:	Statistical Package for Social Science
TAC	:	Transportation Association of Canada
TANROADS	:	Tanzania National Roads Agency
UN	:	United Nations
URT	:	United Republic of Tanzania
US	:	United States

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the Research Problem

Monitoring and evaluation in performance of roads construction is an important consideration in ensuring the success and sustainability of the projects (Tengan *et al.*, 2021). Most of the developed countries such as the United States of America, Canada, and European countries tend to have more advanced infrastructure and a larger pool of skilled labor, which can make it easier to access materials and equipment and to oversee construction projects (Byaruhanga & Basheka, 2017). As a result, the monitoring and evaluation in performance of roads construction tends to be more established and highly regulated in these countries.

Selestin (2018) in contrast, less developed countries such as those in Sub-Saharan Africa may face a number of challenges in ensuring the monitoring and evaluation in performance of road construction projects.

These challenges may include limited resources, inadequate infrastructure, and a lack of skilled labor, which can make it more difficult to access materials and equipment and to oversee construction projects. In order to address these challenges and ensure the quality of road construction projects in these countries, it may be necessary to involve monitoring and evaluation and specialized knowledge and experience in the field (Selestin (2018). This is the reality since monitoring and evaluation practices tend to assure clarity of the projects from the design and planning where the critical issue and concerns may be identified (ibid). Thereafter, it is done in each and every stage and phase including preparations, drawings, scheduling, budgeting, and each

stage in the implementation process, funding, contingencies and others (Selestine, 2018).

Several studies have demonstrated the significance of monitoring and evaluation in road construction in developed countries such as Canada, Italy, Finland, and the US. Some studies such as in 2018, the Federal Highway Administration in the US released a report on the use of quality management systems as part of M & E (QMS) in highway construction projects. The report found that the use of QMS (Quality management System) can help to improve the quality of highway construction projects, and can also lead to cost savings and other benefits (Federal Highway Administration, 2018). In 2017, the Transportation Association of Canada (TAC) carried out a case study on the use of construction quality assurance as part of M & E (CQA) on a highway construction project in Ontario, Canada. The case study found that the use of CQA helped to identify and resolve issues during the construction phase, and resulted in a higher quality project overall (TAC, 2017).

Similarly, in Africa, road construction projects have instituted monitoring and evaluation practices in efforts to achieve performance in development projects and programs and promote economic growth. With effective results-driven reform agenda constituting incentives, budgeting, monitoring and evaluation systems play a key role in achieving project success in road construction in government sector (Selestine, 2018). However, most road constructions' M&E systems in Africa operate in complex regulatory framework characterized by highly bureaucratic framework (Gaibo, 2019). Moreover, the roads have potholes and are located within

residential areas, leading to broken pipes and even causing water contamination at times.

Nevertheless, with exceptions in some countries in Africa in recent years, there has been growing recognition of the challenges and difficulties associated with involving monitoring and evaluation of road construction projects in Africa (Musyimi & Ondara, 2022). These challenges are particularly pronounced in Sub-Saharan Africa, where limited resources, inadequate infrastructure, and a lack of skilled labor can make it more difficult to access materials and equipment and to oversee construction projects (Musyimi & Ondara, 2022). As a result, organizations in the regions may need to be more proactive in seeking expert advice and guidance, and may also need to be more flexible in their approach to road quality. Despite these challenges, there is also a growing recognition of the importance of ensuring the quality of road construction projects in Africa, and of the role that organizations can play in this process.

Mukamwiza and Hakizimana (2021) suggest that in order to address the challenges and difficulties of involving monitoring and evaluations in quality of roads construction in Africa, it will be necessary to develop innovative and effective approaches that take into account the specific needs and challenges of this region (Kim *et al.*, 2015). Thus, there is a lack of consensus on the most effective ways to utilize monitoring and evaluations in road construction in developing countries. This may be due to a variety of factors, including inadequate training and resources, a lack of standardization, or inadequate oversight and monitoring. World Bank (2020)

further research is needed to identify best practices for utilizing monitoring and evaluations in performance of road constructions projects, as well as to identify any potential gaps or weaknesses in the current processes and systems.

Poor roads construction result in the presence of potholes in roads within residential areas that possess a significant problem for both the community and infrastructure. Potholes are caused by the natural wear and tear of road surfaces, exacerbated by weather conditions such as rain, heat, and freezing temperatures. When roads are not properly maintained, these potholes can grow larger, causing damage to vehicles and posing a safety risk for pedestrians and cyclists (World Bank, 2020).

Moreover, the proximity of these damaged roads to residential areas can have a direct impact on the quality of life for residents. For example, poor road conditions can lead to increased noise pollution from vehicles driving over the rough surfaces. Additionally, this issue can affect property values, as potential homebuyers may be deterred by the poor infrastructure in the area. Masato (2020) a significant concern stemming from these potholes is the potential damage to underground utilities such as water pipes. When roads are in poor condition, the stress placed on underground infrastructure can lead to broken pipes. This not only causes water leaks and potential property damage but can also result in water contamination. Contaminated water poses a serious health risk to the community, as it can lead to waterborne illnesses and diseases.

To mitigate these issues, it is crucial for local governments and municipalities to prioritize monitoring and evaluations as well as road maintenance and repairs. Regular inspections can help identify problem areas, and prompt repairs to prevent potholes from worsening. Additionally, investing in better-quality road materials and construction techniques can extend the lifespan of road surfaces and minimize the risk of damage to underground utilities. Thus, looking at TANROADS construction projects could be significant in determining the role of monitoring and evaluation on performance of road construction projects in Tanzania. As, the World Bank's Board of Executive Directors approved \$300 million in 2020 in credit from the highly-concessional International Development Association (IDA) for the new Dar es Salaam Metropolitan Development Project (DMPD) that will improve services directly for 1.9 million residents and, indirectly, for the city's overall population of 4.6 million.

Road construction projects under TANROADS in Dar es Salaam, is geared by population factors whose growth rate averaged 5.6 percent between 2012 and 2022, it is among fastest growing cities in the world (NBS, 2022). Services have not been able to keep up with the rapid development leading to sprawl, growth of informal settlements, congestion, flooding, and constraints to the business environment (Metropolitans development projects road networks; DMDP, 2022). Hence, the International Development Association (IDA) credit improved the key services to address flooding, urban mobility, and basic infrastructure in low-income communities.

TANROADS is expected to improve the capacity of local governments to better plan and provide services, while focusing on the growing need to adopt a metropolitan approach to addressing the region's challenges. TANROADS, or the Tanzania National Roads Agency, is an executive agency under the Ministry of Works. It is not directly under the Prime Minister's Office, Regional Administration, and Local Government (PMO-RALG). TANROADS is responsible for managing, developing, maintaining, and rehabilitating the country's trunk and regional road networks. The core components of TANROADS are centered on the management and development of Tanzania's road infrastructure. This includes tasks such as road maintenance, road construction, bridge infrastructure development, and ensuring road safety (TANROADS, 2023).

While, TANROADS operates under the Ministry of Works, Transport, and Communications, it may collaborate with the PMO-RALG and other agencies on various projects or initiatives related to the development of priority infrastructure, improvement of basic services, and institutional strengthening. However, these collaborations are not the main components of TANROADS, but rather additional cooperative efforts in line with their core mandate to manage and develop Tanzania's road networks (TANROADS, 2023). Nevertheless, given the complex challenges that Dar es Salaam faces, this project attempts to respond to both the immediate service provision demands as well as the capacity building requirements for a future megacity.

The World Bank's recent Country Economic Memorandum for Tanzania (CEM 2022), underscored the importance of improving the competitiveness and efficiency of cities in order to nurture greater agglomeration benefits and create productive jobs for the 800,000 young people who enter the job market every year. Most of these graduates end up in the informal sector to which they are almost permanently consigned, as there are not enough jobs to absorb them in the formal sector (DMDP, 2022). Investing in infrastructure and service gaps in the urban areas is one way of addressing this challenge as it would encourage agglomeration effects while reducing congestion. Hence, it is important to continue to study the role of monitoring and evaluation of roads construction and other issues in order to better understand the most effective ways to utilize resources in road construction projects in poor countries, as well as to identify any potential gaps or weaknesses in the current processes and systems. This can help to improve the safety and integrity of the roads being constructed, and ultimately contribute to the overall success of development projects in these countries.

1.2 Problem Statement

In Tanzania, the construction of roads in rapidly growing cities such as Dar es Salaam has been accompanied by a number of challenges related to the quality and safety of the roads. Poorly constructed roads have resulted in safety hazards for motorists, roads into properties and houses as well as damage to vehicles, while inadequate drainage systems have caused water pipe leaks, leading to contaminated water (Selestine, 2018). These challenges may be due to a lack of effective

monitoring and evaluation practices, which can lead to construction practices that are not up to par.

This is an important practice because it assures the well-being of the projects prior to performance since it is executed by external verifiers that assure the projects lead to efficiency and performance (Masato, 2020). Though monitoring and evaluation has been and still is executed as the requirement but still overruns, time variations, delays and other uncertainties have been common occurrences in the projects which fostered the need to address the concern further with respect to the practice regarding the performance of the projects (TAC, 2017). The situation has been and still persist which fostered the need to envisage further in the area.

This brought about the need to conduct the study in Tanzania since several studies have been conducted towards road construction projects with regard to performance in various occurrences including pre project planning (Massawe, 2021), project planning software usage (Charlie, 2021) and others. However, the studies recommended further monitoring and evaluation (M&E) towards project performance in road construction. This implied that little studies had been undertaken in the area which was the gap that needed to be filled. Therefore, the study aimed to examine the influence of monitoring and evaluation practices on the quality of road construction projects, in order to contribute to the overall success of development projects and economic growth in Tanzania.

1.3 Research Objectives

1.3.1 General Objectives

The general objective of the study was to assess the role of monitoring and evaluation on performance on road construction projects in Tanzania.

1.3.2 Specific Objectives

- i. To assess the quality of monitoring and evaluation practices in road construction projects in Tanzania.
- ii. To analyze the role of user's organizations in monitoring and evaluation of road construction projects in Tanzania.
- iii. To examine the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania.

1.4 Research Questions

- i. What is the quality of monitoring and evaluation practices in road construction projects in Tanzania?
- ii. What is the role of user's organizations in monitoring and evaluation of road construction projects in Tanzania?
- iii. To what extent monitoring and evaluation planning influence the quality of road construction projects in Tanzania?

1.5 Significance of the Study

The significance of this study is further highlighted by its ability to incorporate both national and international perspectives on monitoring and evaluation (M&E) in the context of road construction and maintenance. By considering these diverse

viewpoints, the research can offer a more comprehensive understanding of M&E best practices and contribute to the ongoing global discourse on sustainable infrastructure development.

Findings from this study will align with national development strategies, such as those outlined in a country's long-term development plan or vision. These plans often emphasize the importance of efficient and well-maintained infrastructure to support economic growth, social development, and environmental sustainability. By improving M&E processes, the study can contribute to the achievement of these national goals, through discussions and point of views as per the aligned SDG's in relation to M & E on road infrastructure.

At the international level, the research findings can acquire views from the implementation of global development agendas, such as the United Nations Sustainable Development Goals (SDGs). In particular, the study can support the realization of SDG 9, which focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Improved M&E processes in road construction and maintenance can lead to more cost-effective, environmentally friendly, and socially inclusive infrastructure projects, ultimately contributing to the global pursuit of sustainable development.

In addition, the study can inform international development cooperation and policy-making. By showcasing the importance of effective M&E systems and practices, the research can encourage bilateral and multilateral organizations to prioritize capacity

building and knowledge sharing in this area. This, in turn, can lead to more efficient use of development aid and resources, resulting in a greater impact on infrastructure development and overall socioeconomic progress.

1.6 Scope of the Study

This study aims at examining the role of monitoring and evaluation on performance of road construction projects in Tanzania. The investigation focuses on Dar es Salaam region in Tanzania as one of the areas where sustainable infrastructure is implemented and ongoing. The study based on case study design in gathering information from the respondents, using research methods such as structured interview and interview guides.

CHAPTER TWO

LITERATURE REVIEWS

2.1 Introduction

This chapter reviews the literature related to the role of monitoring and evaluation on performance of road construction projects in Tanzania. This review is divided into conceptual definitions, theoretical perspectives, empirical literature reviews and the conceptual framework of the study.

2.2 Conceptual Definitions

This part provides the definition of the key terms used in the study. The key terms in this part directs the study and its entire design. The terms are monitoring, evaluation and project management.

2.2.1 Monitoring

Suleiman & Luvara (2016) Suleiman and Luvara (2016) define monitoring as a management tool used to identify performance flaws that could result in a discrepancy between planned and actual performance, allowing remedial action to be taken (Chileshe & Kikwasi, 2013). Ideally, monitoring can be defined as a tool or system that helps the administration to know at each stage of implementation; what is missing, what should be done, how the projections can be handled professionally to achieve the project's objectives. Also, observably, can be defined as a means to detect underutilization or overutilization of project resources and make suggestions for improvement.

2.2.2 Evaluation

According to Lahey (2016) the term evaluation refers to a thorough and unbiased examination of finished or ongoing actions in order to determine their effectiveness carried out. Ideally, evaluation can be operationally defined as a process of determining how, why, and to what extent objectives or goals are met by an unbiased processes or procedures. Observably, evaluation can be defined as a tool or system that assists the program implementers or administrative unit in answering essential questions about grant, cluster, component, initiative, and strategy performance.

2.2.3 Project

A project is a set of activities where resources are used in expectation of returns and which lends itself to planning, financing and implementing as a unit. A project has a well-defined sequence of investment and production activities and a specific group of benefits that can be identified, quantified and valued, either socially or monetarily. A project can also be said to be a unique process consisting of a set of coordinated and controlled activities with start and finish dates undertaken to achieve specified objectives that usually conform to specific requirements that include constraints of time, cost and resources (Nyonje, *et al.*,2015).

2.3 Theoretical Reviews

2.3.1 Program Theory

The Logical Framework Approach (LFA) is a program theory that was originally developed in the 1960s by Leon Rosenberg and further refined by the United States Agency for International Development (USAID) (Brousselle& Champagne, 2011).

This approach is widely used in project management, particularly in the development sector, to plan, monitor, and evaluate projects. LFA emphasizes the importance of a systematic process to identify key project components, establish causal relationships, and define indicators to measure performance. The theory is based on the assumption that a well-structured and logically sound framework will lead to improved project management and ultimately better project outcomes (Rogers et al., 2000).

By setting clear objectives, identifying potential risks, and establishing performance indicators, the LFA allows stakeholders to better understand and assess project progress.

The relevancy of theory to this study is due to its strengths of LFA lie in its structured and systematic approach, which facilitates better communication among stakeholders and helps them develop a shared understanding of the project. It also encourages transparency and accountability by setting clear targets and performance indicators. Moreover, LFA promotes the identification and mitigation of potential risks, which can contribute to more efficient resource allocation and improved project outcomes. However, the LFA has some limitations. It can be criticized for being too rigid and linear, as it may not fully account for the complexities and uncertainties that often arise in real-world projects. Additionally, the LFA may overemphasize the quantitative aspects of project management, potentially overlooking the qualitative factors that can influence project success.

2.3.2 Theory of Change

The Theory of Change (ToC) was developed in the 1980s by prominent evaluation methodologists, including Huey Chen, Peter Rossi, Michael Quinn Patton, and Carol

Weiss (Maru et al., 2018). The ToC assumes that there are causal links between outcomes at different levels, drivers of change, belief systems in a society that inform judgments about appropriateness and feasibility in specific contexts, and a particular context in which a project will operate (Thornton et al., 2017).

The strengths of the Theory of Change include its focus on knowledge and skills related to project implementation, particularly concerning the effective use of available resources and trans boundary projects. The ToC (i) embraces the complexity of change by demonstrating how results can be achieved and promoting locally/nationally-owned development; (ii) fosters greater contextual awareness and clarity about the rationale, assumptions, and long-term goals of development programs, thus moving beyond "business as usual"; and (iii) addresses cross-cutting and complex issues like gender through flexible, non-linear frameworks (Arensman et al., 2018).

However, the ToC has weaknesses due to challenges in understanding the approaches and methods necessary for effective implementation. These challenges stem from a lack of uniformity (Michelini et al., 2020). To address these concerns, researchers may start by identifying realistic long-term goals and outcomes that everyone involved understands. In this process, a trained external facilitator can help guide the group to consensus and specificity (Olya, 2020).

The Theory of Change is relevant to this study on the role of monitoring and evaluation in road construction projects in Tanzania, as it can generate valuable

knowledge that leads to informed debate and improved future decision-making. The ToC concepts, centered on the skills and knowledge of how administrators or project managers implement projects using current resources and strategic ideas, can be applied to the study's specific objectives, such as assessing the quality of M&E practices and examining the influence of M&E planning on project quality. By connecting mechanisms, context, and outcome evaluation, the Theory of Change creates a holistic picture of the factors that contribute to effective M&E processes and their impact on the performance of road construction projects in Tanzania.

2.4 Empirical Literature

2.4.1 The quality of monitoring and evaluation practices in road construction projects

Bonsón-Fernández et al., (2017) investigated the role of monitoring and evaluation practices in public infrastructure projects. The study focused on the European Union (EU) funded infrastructure projects and their impact on regional development. The researchers analyzed data from various EU projects and concluded that effective monitoring and evaluation practices significantly contribute to the successful completion of infrastructure projects and ensure that intended outcomes are achieved.

In addition to the previous study, de Jong & Sun (2019) examined the role of monitoring and evaluation in Public-Private Partnership (PPP) infrastructure projects worldwide. The study analyzed data from PPP projects across various countries and found that effective monitoring and evaluation practices were essential for enhancing transparency, mitigating risks, and improving overall project performance. The

research emphasized the need for standardized M&E practices and the importance of stakeholder collaboration to ensure the success of PPP infrastructure projects.

Acheampong & Anum (2019) conducted a study on the quality of monitoring and evaluation practices in road construction projects in Ghana. The research employed a mixed-methods approach, involving interviews and surveys of stakeholders involved in road construction projects. The findings revealed that effective monitoring and evaluation practices played a crucial role in improving the quality and timely completion of road construction projects. Additionally, the study highlighted the importance of stakeholder involvement, capacity building, and the use of appropriate technology in enhancing monitoring and evaluation practices in the African context.

Complementing the previously mentioned African study, Ofori et al., (2017) explored the impact of monitoring and evaluation practices on road construction projects in West Africa. The study involved a survey of construction professionals in the region and found that the adoption of comprehensive M&E systems led to improved cost management, timely project delivery, and enhanced quality of constructed roads. The research suggested that capacity building, technology adoption, and stakeholder engagement are key factors in promoting effective monitoring and evaluation practices in the African road construction sector.

Mabula & Mahenge (2020) examined the quality of monitoring and evaluation practices in road construction projects in Tanzania, with a focus on the TANROADS organization. The study employed a case study approach, collecting data through

interviews, questionnaires, and document analysis. The results showed that the quality of monitoring and evaluation practices significantly influenced the performance of road construction projects in Tanzania. The researchers emphasized the need for continuous improvement in M&E practices, stakeholder involvement, and effective communication to ensure the successful completion of road construction projects.

These studies highlight the importance of effective monitoring and evaluation practices in road construction projects, both globally and within the context of Tanzania. They provide valuable insights into the factors that influence the quality of M&E practices and their impact on project performance, aligning with the specific objective of assessing the quality of monitoring and evaluation practices in road construction projects in Tanzania.

In addition to the prior Tanzanian study, Yohana & Tarimo (2021) investigated the factors affecting the success of road construction projects in Tanzania. The study used a case study approach, collecting data through questionnaires and interviews with project managers and engineers. The findings revealed that effective monitoring and evaluation practices, along with appropriate resource allocation, skilled workforce, and stakeholder involvement, significantly influenced the success of road construction projects in Tanzania. The research emphasized the need for continuous training, effective communication, and the adoption of modern technology to improve the quality of monitoring and evaluation practices in the Tanzanian context.

These additional studies further underscore the importance of effective monitoring and evaluation practices in road construction projects on a global, regional, and national level. They provide a comprehensive understanding of the factors that contribute to the success of these projects and align with the specific objective of assessing the quality of monitoring and evaluation practices in road construction projects in Tanzania.

2.4.2 The role of user's organizations in monitoring and evaluation of road construction projects

Hubert & Mulyungi (2018) examined the influence of monitoring and evaluation planning on project performance in Rwanda. Descriptive survey design was used. The study used both primary and secondary data where questionnaires were used for data collection. Cronbach's alpha test was utilized in assessing reliability of research instrument. Findings indicated that all participating institutions were privy to the M&E plans developed by AVU. On average, 92% of the respondents gave plausible reasons why they thought M&E planning influences project performance in reference to the projects under study. Spearman correlation showed a positive significant correlation coefficient of 0.8 between M&E planning and project performance.

Nicodem (2020) did the study on a web-based monitoring and evaluation system for government projects in Tanzania. The study established that Monitoring and evaluation staff spent a lot of time in manual work, delay in submission of data, data is lost between primary registries to monthly summaries, from monthly to quarterly summaries, lack of having project details, project status, timely adoption and

remedial action. In this study, data were collected by using document reviews, focus group discussions and interviews to generate system requirements. A web-based monitoring and evaluation system for the ministry of health projects were developed to solve the monitoring and evaluation challenges, to provide timely, simplify works, generate quality data, effective planning and successful project implementation. Lastly, the developed system was tested and evaluated against the user's requirements and was positively accepted to be deployed at the ministry of health.

Nuhu & Iddi (2018) did study on Challenges and Opportunities for Community Participation in Monitoring and Evaluation of Government Projects in Tanzania. Drawing example from the 15 sub-projects selected in TASAF II national project in Bagamoyo District, Tanzania. In the collection of primary data, 55 beneficiaries and 17 key informants were selected purposively and were asked questions through questionnaires, in-depth interviews and focus group discussions. Direct field observation was also employed in order to get a real picture in the subproject's sites. The study revealed that despite TASAF policy of empowering communities to demand, implement and monitor services; community participation in M&E still faced with many challenges such as; cost in terms of time and money, complexity of analysis and lack of analysis. It was also noted that despite having those challenges community participation in M&E of TASAF II sub-projects the opportunities cannot be ignored.

Mica & Luketero (2017) did a study on monitoring and evaluation systems and Performance of Non-Governmental based maternal health projects in Kenya. A descriptive survey design and correlation design was employed. With a target

population of 101 respondents, a census was conducted on all respondents involved in implementation of maternal health projects from three non-governmental organizations (AA, STC, and CREADIS). Data was collected through questionnaires and analyzed using descriptive statistics. A fairly strong correlation of 0.607, 0.530, 0.533 and -0.489 for monitoring and evaluation plans, human resource capacity, nature of information system adopted, and stakeholder participation respectively and performance of maternal health projects. The regression analysis indicated that, taking all the independent variables at a constant zero, performance of maternal health projects was 4.087. The study recommends alignment of staff job descriptions with their M&E plans, increase the number of M&E training, conduct Routine Data Quality Assessment to detect areas of difficulties to staff, invest in Information and Communication Technology, and manage.

2.4.3 The influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania

Hassan (2013) investigated Structural Capacity as a Component of Monitoring and Evaluation in Project Success of Road Construction Projects in Kenya. The data collected from the field was captured using Statistical Package for Social Sciences (SPSS) and Microsoft excel. Descriptive statistics including frequency, percentages and mean were employed and a summary graphs, pie charts and frequency distribution tables given. Content analysis was used to analyze qualitative data to help triangulate quantitative data. Correlation of the main variables that is project mission, structural capacity, processes and outcome mapping which are also components of monitoring and evaluation was calculated using SPSS to find out how

individually they influenced project quality. It was found out that all the components correlate positively.

Maendo et al., (2018) did a study on effect of project monitoring and evaluation on performance of road infrastructure projects constructed by local firms in Kenya. The study established that project monitoring and evaluation has a significant effect on performance of road infrastructure projects undertaken by local firms. Therefore, conducting M&E on regular basis, allocating sufficient finances for M&E activities and employing of staff with required skills play a critical role in the performance of road infrastructure projects.

Yang et al., (2020) assessed ecological environment impact in highway construction activities with improved group in China. A total of six main factors and 22 sub-factors from three aspects of social, ecological, and natural environment were identified. The model and index system were applied to the ecological environment impact assessment of the highway from the city of Hanzhong to Lueyang County section in Shaanxi Province, and compared with traditional fuzzy AHP approach to verify the feasibility of this model. The results showed that only the ranking of social and ecological factor changed when comparing with the traditional approach. The weight of social factor determined by the improved approach was 0.2835, while that of the traditional approach was only 0.2365, and the weight difference was 0.047.

2.5 Knowledge Gap

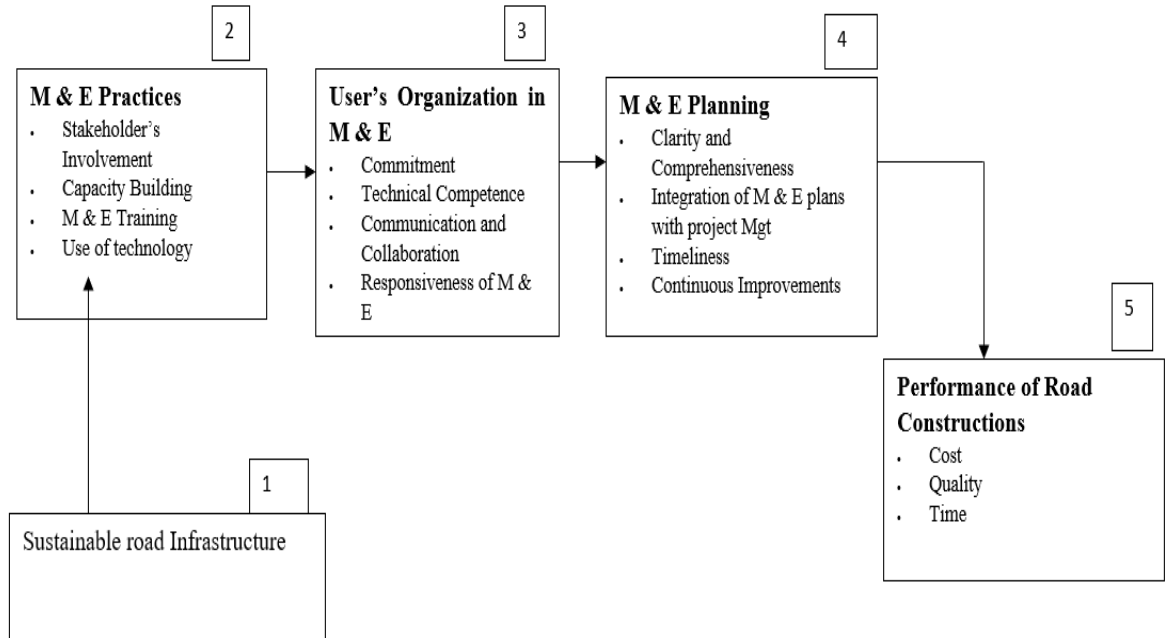
It has been revealed through the literature that monitoring and evaluation is essential in the road construction projects with regard to performance respectively. Since that

is the case, studies have been engaged in the area prior to the performance and indicate strong contribution towards performance in developed states and some developing countries. However, with the case of Tanzania the practice is active still the outcome regarding performance of the projects has been encountered with shortcomings prior to performance with the situation keep on persisting. With that being the case, little studies had been envisaged in the area within the context which necessitated the need to envisage further in the area.

2.6 The Conceptual Framework

Conceptual framework is the framework which groups variables into three major parts which are, independent variable, intervene/intermediate variable and dependent variable. Therefore, with this study which devote on the role of monitoring and evaluation on performance of road construction projects in Tanzania, have been conceptualized in accordance to the research objectives.

Figure 1: The conceptual framework of the study



2.6.1 Variable Propositions

The conceptual framework for this study is informed by the Theory of Change, which emphasizes the importance of understanding causal links between outcomes at different levels, the drivers of change, and the context in which a project operates. In this study, the focus is on the role of monitoring and evaluation (M&E) in improving the performance of road construction projects in Tanzania, particularly in the case of TANROADS Dar es Salaam.

The input components of the conceptual framework, which include M&E frameworks, user organization commitment and technical competence, M&E planning and integration with project management, and stakeholder involvement, align with the Theory of Change's emphasis on understanding the underlying drivers

of change. These elements are essential for creating an environment conducive to effective M&E practices, which can lead to better project outcomes and improved road construction quality.

The process components of the conceptual framework are directly linked to the specific objectives of the study, and they reflect the various aspects of M&E that are influenced by the Theory of Change. For example, the quality of M&E practices in road construction projects is closely related to the causal links between outcomes at different levels. By assessing the adequacy of M&E frameworks, stakeholder involvement, capacity building, and the use of technology, the study can identify the factors that contribute to improved project performance and higher-quality road construction.

Similarly, the role of user organizations in M&E of road construction projects corresponds to the Theory of Change's focus on the context in which a project operates. By examining user organizations' commitment, technical competence, communication and collaboration with stakeholders, and responsiveness to M&E findings, the study can explore how these organizations shape the monitoring and evaluation processes and contribute to the overall success of road construction projects in Tanzania.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the procedures, techniques, approach and overviews of how the research study was carried out. Research methodology is a systematic way to solve research problem and understanding various steps adopted by researcher in studying his research problem along with logic behind them (Kothari, 2004). It describes the study area and research design adopted. It states in details the sampling technique used in this study and it describes the main techniques used in data collection and the methods of data analysis.

3.2 Research Philosophy

The study is positioned to use positivism paradigm approach, which looks at the reality and that can be observed and analyzed from the study subject matter regarding the objectives (Ranjit, 2011). This study prefers working with observable social reality and that the end product of that research can be law like generalizations. “According to Kothari (2004) stipulates that in order to make a clear analysis and observation for the phenomenon, the reality should be set aside and being studied from a critical view (through the window). Kothari further elaborated that handling the reality with variations on independent variable to categorize and sort the regularities.

3.2 Research Design

Research design is the conceptual structure within which research is conducted and includes the collection and analysis of data that are relevant to the research (Kothari, 2004). It is the plan showing the approach and strategy of investigation chosen to obtain valid and reliable data that achieved the research objectives and answered research questions. The researcher employed a case study design because the case study design places emphasis on a full contextual analysis of fewer events or conditions and their interrelations. Kothari (2004) has explained a case study as a complete and careful observation form of a qualitative analysis of a social unit that places more emphasis on the full analysis of a limited number of events or conditions and their interrelations. Saunders and other authors argued that an existing theory can be challenged by a simple and well-constructed case study despite the suspicion of its unscientific feel.

This study, therefore, adopted a case study since it emphasizes a full contextual analysis of fewer events or conditions and their interrelations. The design is also selected due to its nature of having an in-depth, contextual analysis of similar situations in other organizations as the one being researched in this study takes into consideration an in-depth analysis of the matters about metropolitan's road construction projects.

3.3 Research Approach

This research follows a mixed method of quantitative and qualitative approaches. This approach allows for the concurrent analysis of both quantitative and qualitative data. According to Kothari (2004) qualitative approach is a function of a researcher's

perception and impressions whereby he gives his subjective assessment of attitudes, opinions, and behaviors while the quantitative approach involves the generation of data in a quantitative form which can be subjected to rigorous quantitative analysis formally and rigidly. A qualitative research approach was largely employed during the study; Qualitative data collection was based on comment sections in an otherwise close-ended questionnaire where the respondents give additional information to add depth to responses given quantitatively. The respondents in this study are positioned to give their impressions of lived experience based on a Likert-type scale provided in the questionnaire to enable quantitative interpretation.

The quantitative data were then analyzed with the additional qualitative data collected. Thus, addressing the issue of lack of depth that sometimes arises when only quantitative approaches are employed with no explanations of the quantitative data. Dawson (2002) indicates that the quantitative approach reaches more respondents and the contact is much quicker than the qualitative approach whereby the contact with the respondent tends to last a little longer. Dawson (2002) further states that no method is superior to the other, and both have their strength and weaknesses.

3.4 Area of Study

The study was carried out at Dar es salaam, involving project areas under TANROADS which is under three regions, namely; Temeke, Ilala and Kinondoni. In the 2012/13 financial year, the government launched the Dar es Salaam Metropolitan Development Project, in order to implement the policy of the ruling party, Chama

cha Mapinduzi, which aims to address four major challenges: first, to eliminate poverty; second, to reduce the problem of unemployment, especially among the youth; third, to fight corruption and the mismanagement of public resources; and fourth, to strengthen the security and safety of citizens and their property (TANROADS, 2022).

The study was carried out in Dar es salaam, due to reasons that government decided to implement the road infrastructure development by taking into account that Dar es Salaam as a unique case, because: Dar es Salaam is rapidly growing, and it is expected that by 2030, the city will have a population of more than 10 million people. Dar es Salaam is faced with various governance challenges in fulfilling its obligations to its citizens (Kironde&Heneveld,2018).The municipalities of Dar es Salaam need important facilities for internal revenue collection in order to reduce the dependency of the central government in its plans and budgets (TANROADS, 2022).

The growth of Dar es Salaam is characterized by informal settlements, which make up between 70% to 80%. Also, due to the rapid growth of Dar es Salaam and the changes in the country's lifestyle, the effects of natural disasters are expected to increase in Dar es Salaam. Therefore, without proper service delivery plans, this city may collapse or be unmanageable (Bennafla & Doherty, 2020).

By focusing on a specific bus route or corridor in Dar es Salaam, the researchers were able to gather more detailed and specific data about the characteristics and conditions of these particular roads. This allows for a more detailed analysis of the issues and challenges facing these roads, and the potential solutions that could be

implemented to address them. Overall, the decision to focus on roads in Dar es Salaam was likely made in order to create a more targeted and focused research project that would be more relevant and useful for decision-makers and stakeholders in the city.

Table 1: Current TANROADS Phase I road section

MUNICIPLITY	BUDGET (TZS/=)	DMDP IMPLEMENTATIONS
Temeke	72,804,468,467.00	Building feeder roads 14.51km Construction of large ditches 8.9km Construction of 55km local
Ilala	43,242,117,826.00	Build feeder roads 2.84km Construction of large ditches Construction of 55km local roads
Kinondoni	63,938,175,211.00	Building feeder roads 14.51km Construction of large ditches 8.9km Construction of Local roads

Source: World Bank Group (2023).

In the fiscal year 2015/16, the Government (TANROADS) entered into an Agreement with the World Bank worth 300 million US dollars for the implementation of the DMDP project for a period of five years. In addition, the Nordic Development Fund (NDF) has contributed 5 million US dollars to face the challenges of behavioral change. The Tanzanian Government has contributed 25.3 million US dollars to this project (Tanzania Urban Resilience Programme, 2020).

3.5 Study Population

A population is the totality of the objects under investigation, it is a set of all cases of interest. Concerning this study, the target populations were 50 roads for the pavement section road of TANROADS in Dar es Salaam. In terms of efforts to improve the quality of life of its urban citizens, the government is looking at greening as one of the avenues of achieving climate resilience of its cities. As the city remains with fewer public and green spaces, the deputy PS also revealed that for Dar es Salaam, projections are that--by 2040 the city will see more than the current 36 very hot afternoons (above 34.6°C) and 100–200 very hot nights (above 24.5°C) annually (The World Bank, 2021).

3.6 Sampling Design and Procedure

According to Lind et al., (2006), a sample is a portion of the respondents drawn from the population of interest, and in many cases, sampling is more feasible than studying the entire population. Although no sample can be guaranteed to be fully representative, it serves the purpose of obtaining a result that is representative of the whole population being sampled without going to the trouble of asking everyone (Fisher et al. , 2010). For the case of this study, the sample were made up of 82 respondents from different road sections. The researcher targeted the Dar es Salaam region due to time, personnel, and financial constraints and also consider the road section in the Dar es Salaam area.

The researcher adopted simple random sampling to give potential respondents an equal chance of being involved in the study. Only those potential respondents that

were willing and believed to be able to deliver the required data approached. In the process of sampling, the researcher perceives that different groups of respondents to meet the objective of the study. This could be achieved by making a judgment through interviews concentrating on the outlook and appearance of the potential respondents.

Table 2: Sample size determination

95% Confidence Interval	
Z-Score	Margin of error
1.96	0.05
Sample Size	

Adopted Statistical Formula

$$n = \frac{N * (Z_{\alpha/2})^2}{(Z_{\alpha/2})^2 + 4Ne^2}$$

$$n = \frac{100 * (1.96)^2}{(1.96_{\alpha/2})^2 + 4 * 100 * 0.05^2}$$

Number of samples = 82

Where

n is the Number of Samples

N is the Sample Size

$Z_{\alpha/2}$ is the Z-score for the desired confidence Interval

e is the Margin of error

Table 3: Number of Expected Respondents

Public Entity Name	Respondents No.	Data Collection Tools
Engineers	30	Questionnaire
Technicians	20	Questionnaire
project managers	5	Interviews
project engineers	5	Interviews
Beneficiaries	8	Interviews
Administrations	10	Questionnaire
Contractors	4	Questionnaire
TOTAL	82	

Source: Field data (2023)

3.7 Data Collection Methods and Instruments

In conducting the study, the researcher applied both primary and secondary data collection techniques. These techniques were employed by the researcher to get in-depth information on the respondent based on the role of monitoring and evaluation on performance of road construction projects, TANROADS.

3.7.1 Primary Data

Primary data are information collected specifically for the investigation under study. The researcher administered interviews and respondent self-administered questionnaires in collecting data. In both methods, the same set of questions were administered.

3.7.2 Interview

The interview is a method of collecting information through oral or verbal communication between the researcher and the respondents. There are several reasons why interviews might be used as a research method in a study on the role of

monitoring and evaluation on performance of road construction projects. In-depth Interviews allow researchers to ask more in-depth and detailed questions, which can help to provide a more nuanced and thorough understanding of the topic being studied (Creswell & Poth,2018).Flexibility: Interviews allow researchers to ask follow-up questions and probe for more information, which can be helpful for exploring complex or nuanced topics(Green& Thorogood,2018).Participant insights: Interviews allow researchers to hear directly from participants about their experiences, perspectives, and insights, which can provide valuable and unique insights that may not be captured through other research methods.

3.7.3 Questionnaires

The questionnaire was designed for a scheduled interview; most of them were self-administered with both open and closed-ended questions to the engineers and technicians. The purpose of the questionnaire was to compare the reviewers' comments and the authors' perceptions of the problems. The questionnaire focuses on meeting the research objectives and answering the research questions (Silverman, 2016).

3.7.4 Documentary Review

For this study on the role of monitoring and evaluation on performance of road construction projects in Tanzania, a case of TANROADS Dar es salaam, a documentary review of relevant documents from Dar es Salaam Metropolitan Development Project (DMDP) reports and plans (2022), TANROADS publications and reports (2022), TARURA reports and plans (2022), World Banks report (2019),

and Tanzania Ministry of Works, Transport and Communication(2018).These document reports, plans, specifications, and other related documents. Researcher carefully reviewed each document and identified relevant information related to the role of monitoring and evaluation on performance of road construction projects.

The information was then coded and organized according to specific themes and categories. Using this approach, researcher hope to gain a more thorough understanding of the ways in which M & E contribute to the quality of roads construction projects in various road construction projects and to identify any best practices or areas for improvement.

3.8 Data Validity and Reliability

In this study data validity and reliability were tested by distributing 78 questionnaires to the metropolitan's HQ and sub projects before the collection of data. The researcher checked if the questions were understood by the respondents and the reliability of the data provided.

3.8.1 Reliability Test for Variables

Cronbach alpha coefficient test were employed to measure the internal consistency of the instruments used and the coefficient alpha of these variables were reported. According to (Mallery, 2003) when Cronbach's alpha is greater than 0.9 (>0.9) it means that the internal consistency reliability is excellent. When it is greater than 0.8 (>0.8) the reliability is good; while greater than 0.7 is acceptable and greater than 0.6

is still acceptable. When it is 0.5 to 0.58 is poor and when it is less than 0.5, internal consistency is unacceptable.

3.8.2 Validity Test for Variables

Validity refers to accuracy of a measure or the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores (Messick, 1989). According to Heale and Twycross (2015), validity is defined as the extent to which a variable or concept is accurately measured in a quantitative study. To ensure data validity, the respondents from the ongoing projects were carefully selected so as to ensure the characteristics of the selected sample reflect the characteristics of the entire populations. Questionnaires were pretested to ten (10) respondents, corrected and subjected to the supervisor for further scrutiny before they were widely distributed to sampled respondents. Furthermore, the researcher ensured respondents' consent is granted and were willing to respond to the questions before the instruments was checked by the supervisor.

3.9 Data Analysis

Information collected from the study were analyzed on data to data basis. Data analysis involved the editing of the information collected to ensure consistency by removing unwanted data, re-filling missing data, substance and reliability data and correction of data wrongly presented (Creswell, 2014). Researcher codes the information through marking by either alphabets or numerals in order to easy the sorting process. Data classification were done in order to facilitate the analysis and help in comparison to achieve the desired results. Data were presented in the form of

chart, tables and graphs, the tabulation process was to ensure simplicity, accuracy and provide a clear picture of the findings.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter is the heart of the study, it presents the findings of the study. It also analyses and discusses the findings of the study based on the objectives of the study as stated in chapter one. The study aimed at assessing the quality of monitoring and evaluation practices in road construction projects, to analyze the role of user's organizations in monitoring and evaluation of road construction projects, and to examine the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania. However, the chapter begins by providing the socio-demographic profile of the respondents.

4.2 Respondents Profile and Characteristics

This section presents a response based on the sample of the study conducted in Dar es Salaam, Tanzania, on Tanzania National Roads Agency (TANROADS). The section provides a descriptive statistics summary of the respondent from the research field, including the education level, occupation status, and gender of the respondents. The following details provide a comprehensive overview of the results obtained:

4.2.1 Respondent Education Level

The table below presents the education of respondents. The education level of the respondents was varied, with some having completed bachelor degrees, diplomas, post graduates and PhDs. The majority of the respondents were found to have bachelor degree level of education. The respondent's education is presented below.

Table 4: Respondent's Education and Profession level

Education level	Frequency	Percentage
Diploma	12	15%
Bachelor's Degree	53	65%
Master's Degree	15	18%
Doctorate Degree	2	2%
Totals	82	100.0

Source: Field data (2023)

The level of education of the employees at TANROADS indicates a highly educated workforce, with the majority (65%) of the respondents holding a bachelor's degree. Additionally, 18% of the respondents have a master's degree, while a smaller portion (15%) hold a diploma. Only 2% of the respondents have a doctorate degree. Education and consultants' skills and abilities were observed to be interchangeable in this sample, as higher levels of education were found to correspond with better understand about the term of references, quality control and consultants' engagements. However, those with a bachelor's degree were found to possess skills, as stated by the director of TANROADS, they still needed to be equipped with training and seminars continuously.

4.2.2 Occupation Status

Table 3 below presents the results on respondent's occupation, the result in the table indicates that most of the respondents were administrations (34%), followed by projects engineers (12%), clients (12%) and technicians (15%). Findings on occupation of the respondents are presented below.

Table 5: Occupation Status

	Frequency	Percentage
Contracted Engineers	6	7%
Technicians	12	15%
project managers	8	10%
project engineers	10	12%
Clients	10	12%
administrations	28	34%
contractors	8	10%
Total	82	100.0

Source: Field Data (2023)

From table above, it is important to note that the representation of respondent's occupation, such as administration in the sample is higher than that of engineers. This could be because the focus of the study is on the role of consultants in the quality assurance of road projects, which is a field that heavily involves the participation of both administrations and other field officers. Moreover, field officers are typically more knowledgeable and experienced in the construction and engineering industry, making them suitable participants for the study. It provides valuable insights into the various perspectives and experiences of different occupational groups, allowing for a well-rounded understanding of the challenges and opportunities facing the construction and engineering industry.

4.2.2 Gender

Table 3 below presents the results of the respondents' gender distribution. In the sample, 55% of the respondents were male, while 45% were female. This is an indication of the increasing representation of both genders in the construction industry, regardless of gender differences, as tasks and responsibilities can be

fulfilled by individuals of either gender as long as they are able to meet the requirements and expectations.

Table 6: Respondents' Gender

	Frequency	Percentage
Male	45	55%
Female	37	45%
Total	82	100

Source: Field Data (2023)

4.2.2 Respondents' Age

The table 5, bellow presents the age of the respondents, which is necessary to determine the age of respondents participating in the TANROADS. Also, to determine the evacuation of roles on consultant's recruitment procedures, terms of reference procedures, the quality control mechanisms, and the effects of the client, consultant's, and contractor's relationship toward quality assurance of road projects. Respondent's age table is presented below.

Table 7: Respondents' Age

	Frequency	Percentage
21-39years	59	72%
40-59years	16	20%
60and above	7	9%
Total	82	100.0

Source: Field data (2023)

Table 4 presents the results on the age group of the respondents, with 72% of the respondents being between 21 and 39 years of age. The results indicate that the majority of the workforce in TANRAODS are young and energetic. 20% of the respondents are between 40 and 59 years of age, while only 9% of the respondents are 60 years or above. This finding is in line with the research by Vanajan & Henkens (2020), which suggests that older workers tend to leave organizations due to reasons such as illness and voluntary retirement.

4.3 Detailed Analysis

This part presents the result of the study based on the objectives as presented in chapter one. This part analyses and discusses the context of subject matter based on the findings, to reach the general and specific goals of the study.

4.3.1 The Quality of Monitoring and Evaluation Practices in Road Construction Projects in Tanzania

The first objective of the study is to assess the quality of monitoring and evaluation practices in road construction projects in Tanzania. The respondents were then asked to tick the choices on a Likert scale that accurately reflects the quality of Monitoring and Evaluation Practices in Road Construction Projects in Tanzania. Table 4.5 below summarizes the findings regarding the objective.

Table 8: Quality of Monitoring and Evaluation Practices in Road Construction Projects

Variable	Mean	Std. Deviation
The monitoring and evaluation process in road construction projects are well-structured and comprehensive.	3	0.89998
Stakeholders are actively involved in the monitoring and evaluation process of road construction projects.	3	1.19403
Monitoring and evaluation activities are conducted regularly throughout the road construction project lifecycle.	2.6	0.95885
Adequate resources (financial, human, and technical) are allocated for monitoring and evaluation in road construction projects.	2	0.98128
Monitoring and evaluation practices in road construction projects effectively identify issues and challenges for timely resolution.	3	0.63207
Performance indicators used in monitoring and evaluation are relevant and measurable for road construction projects.	1	0.62514
Monitoring and evaluation findings are used to inform decision-making and improve the quality of road construction projects.	3	0.75404
Road construction project teams receive regular training and capacity building in monitoring and evaluation practices.	3	0.96651
Monitoring and evaluation reports are clear, concise, and accessible to all relevant stakeholders involved in road construction projects.	3	1.21528
Lessons learned from monitoring and evaluation activities are documented and integrated into future road construction project planning and implementation.	3	0.96742

Source: Research Findings (2023)

From the findings in the table above, it can be observed that the monitoring and evaluation process being well-structured and comprehensive, as well as stakeholder involvement in the process, have the strongest influence on the quality of road construction projects, with mean scores of 3 and 3, respectively. These are followed

by monitoring and evaluation activities being conducted regularly throughout the project lifecycle, and project teams receiving regular training and capacity building in monitoring and evaluation practices, with mean scores of 2.6 and 3, respectively. The least influential factors are the adequate allocation of resources for monitoring and evaluation, and the use of performance indicators that are relevant and measurable, with mean scores of 2 and 1, respectively. The standard deviations for all the variables are less than 3, which suggest that there is minimal dispersion of opinion among the respondents.

The findings imply that the quality of road construction projects in Tanzania is significantly influenced by the structure and comprehensiveness of the monitoring and evaluation process, as well as the active involvement of stakeholders. Regular monitoring and evaluation activities, along with ongoing training and capacity building for project teams, also play a critical role in enhancing the quality of these projects. Overall, the findings highlight the importance of a robust and participatory monitoring and evaluation process in ensuring the success and quality of road construction projects in Tanzania. By focusing on these key factors, project managers and stakeholders can work together to deliver high-quality infrastructure that meets the needs of the communities they serve.

Similarly, Rumenya & Kisimbi (2020) found out that there is a positive influence between M&E Planning and performance of road infrastructure projects which planning in the study context involves; strengthening M&E systems, having policies and standards that describe the roles and responsibilities of M&E operations, having

an M&E action plan and procedure that guide the M&E activities, and having sufficient funds allocated for hiring and training staff for M&E planning activities. This means that, if the above factors are properly implemented, the performance of road infrastructure projects will be enhanced. However, it also means that, in an instance that those factors are poorly implemented; the performance of the road infrastructure projects will be negatively affected. These findings are also in a close concurrence with the statement from the key informant interview from one TANROADS M&E officer that;

The respondent highlighted the importance of having a well-structured and comprehensive monitoring and evaluation process in road construction projects. They emphasized the significance of actively involving stakeholders in the monitoring and evaluation process, which allows for more accurate identification of issues and challenges throughout the project lifecycle. The respondent also mentioned that their organization ensures the allocation of adequate resources, such as financial, human, and technical resources, for monitoring and evaluation activities. This commitment to resource allocation contributes to the effective identification of issues and timely resolution, ultimately improving the quality of road construction projects in Tanzania.

Interview Response 2:

Another interviewee discussed the relevance and measurability of performance indicators used in monitoring and evaluation for road construction projects. They explained that their organization places great

importance on selecting appropriate performance indicators that can accurately measure the progress and success of a project. The interviewee also shared that their organization actively uses monitoring and evaluation findings to inform decision-making, which leads to continuous improvements in the quality of road construction projects. This approach not only enhances project performance but also ensures that lessons learned are documented and integrated into future project planning and implementation.

Interview Response 3:

One respondent emphasized the significance of regular training and capacity building in monitoring and evaluation practices for road construction project teams. They shared that their organization is committed to providing ongoing training and support to project team members, ensuring they possess the necessary skills and knowledge to effectively conduct monitoring and evaluation activities. By investing in capacity building, the respondent's organization aims to improve the quality of road construction projects and promote a culture of continuous learning and improvement within the sector.

Observably, there is a positive significant relationship between monitoring and evaluation on performance of road infrastructure projects. The study findings by Iddi (2018) suggested monitoring and evaluation practices, organizations can ensure that the monitoring and evaluation process is successful and helps them reach their goals.

These practices include: Establish clear goals, objectives, and indicators to measure the success of the program or project. This will ensure that the evaluation process is effective and that any potential obstacles can be identified and monitored.

Developing a timeline and budget; Developing standardized data collection processes and protocols to ensure accuracy is key when it comes to the evaluation process. Analyzing results, and reporting findings. Furthermore, it will allow for monitoring of progress, so that any necessary changes can be implemented along the way. Involve all stakeholders in the process and communicate the results to all stakeholders; Use the results to make informed decisions; Moreover, it is important to monitor the evaluation process periodically in order to determine if the project is achieving its desired outcomes (Iddi (2018). This monitoring can be accomplished through reviews of progress that are conducted regularly. It is important to regularly review and update the monitoring and evaluation process to ensure that it is effective and efficient. It's essential that each step of the process is closely tracked and any problems or issues addressed swiftly and decisively. By paying close attention to how the project is progressing and making necessary changes, you can ensure its successful completion (Iddi, 2018).

On the other hand, Micah & Luketero (2017) put found out that in order to optimize the Benefits of an Effective Monitoring and Evaluation Process. An effective monitoring and evaluation process can provide more accurate and timely data to inform decision-making. A well-thought-out process is vital for any organization that wants to measure effectively the impact of its activities.

Developing a process for monitoring and evaluating activities should include steps such as defining goals and objectives, creating a timeline and budget, collecting data, and analyzing the results. It is also important to ensure the process is consistent, clear, and regularly revised with the changing needs of the organization (Micah & Luketero, 2017).

Micah & Luketero (2017) by implementing an effective evaluation process, organizations can ensure they are making informed decisions that will have positive long-term impacts. Establishing clear objectives, metrics, and indicators can help to ensure that evaluations are focused on the right areas and make the process more efficient. This can help define the parameters and expectations for the evaluation so that everyone involved is on the same page. Additionally, this can help to streamline the process by outlining the criteria that must be met and creating metrics to measure progress and success. Establishing a detailed evaluation process can help to ensure that the process is as smooth and successful as possible.

Also, the process of evaluation needs to be refined and improved regularly by leveraging feedback from stakeholders. This helps to ensure that evaluations are meaningful and relevant to their purpose, which is critical for organizations that are looking to grow and develop. By working collaboratively with stakeholders on the process of evaluation, organizations can craft meaningful assessments that help them move forward in an efficient and effective manner (Micah & Luketero, 2017).

In some extent, findings by Nambiro (2018) are also important which per take the procurement stages for a better monitoring and evaluation practices, some companies have also often been quoting lower bids, however, after winning the contracts they seek for variations causing the cost overrun. Contractor monitoring is the active control of the contract between the procuring and disposing entity and the contractor, in order to ensure delivery of a cost effective and reliable service at an agreed standard and price. It is the final stage in the bidding process and marks the beginning of a contractual relationship between the procuring and disposing entity and contractor in the process of managing and administrating the contract implementation (Rumenya & Kisimbi, 2020).

Rumenya & Kisimbi (2020) contractor monitoring cycle is the process of systematically and efficiently managing contract creation, execution and analysis for maximizing operational and financial performance and minimizing risk. While Fourie & Malan, (2020) their study on compliance monitoring and procurement performance carried out in Uganda, notes that supplier/contractor monitoring and evaluations has significant impact on construction project performances, and has slowly become an important component for effective supplier relationship management that is does not seek administrative review.

Furthermore, Callistus & Clinton (2016) wrapped up the benefits of monitoring and evaluation (M&E) practices in construction projects management. They established that the evaluation process provides an objective way to measure the success of a project or initiative. It consists of a series of steps that start with analysis, which is

followed by evaluation and finally, assessment. This process helps to identify what has been successful and what areas need improvement.

By analyzing the data, it's possible to make informed decisions and make changes that can help to optimize success. The evaluation process ensures that projects are successful and are carried out with integrity. The process can also help identify areas of improvement and ensure that the desired outcomes are achieved. This can be done by setting measurable objectives and then evaluating the progress made towards those objectives.

The process of monitoring and evaluation helps to highlight any areas that need attention or any changes that need to be made to ensure that the desired outcomes are met. It's important to remember that the process of evaluation should be ongoing, regularly evaluating performance and making adjustments as needed to ensure the desired results are achieved. However, in order to properly evaluate the results of a project or initiative, organizations should also have a regular monitoring process. This will enable them to identify areas of improvement while also recognizing successful elements. By keeping an eye on the progress of projects and initiatives,

4.3.2 The role of user's organizations in monitoring and evaluation of road construction projects in Tanzania

The second objective of this study is to determine the influence of role of user's organizations in monitoring and evaluation of road construction projects in Tanzania. The respondents were then asked to tick the choices on a Likert scale that accurately

reflects role of user's organizations in monitoring and evaluation of road construction projects in Tanzania. Table 4.5 below summarizes the findings regarding the objective.

Table 9: User's Organizations in Monitoring and Evaluation of Road Construction Projects

Variable	Mean	Std. Deviation
User organizations actively collaborate with project stakeholders in monitoring and evaluation activities.	3	0.443
User organizations provide necessary resources and support for the monitoring and evaluation of road construction projects.	3	0.45
User organizations establish clear communication channels with consultants for effective monitoring and evaluation.	2	1.043
User organizations take responsibility for addressing challenges identified during monitoring and evaluation processes.	2	0.464
User organizations ensure that project data, information, and provided facilities and services are available to all stakeholders.	2	0
User organizations set transparent criteria for the selection of consultants and service providers in road construction projects.	2	0.05
User organizations define and communicate their objectives and goals clearly to all stakeholders involved in road construction projects.	2.81	0
User organizations ensure that the project scope is compatible with budget availability, in accordance with regulations.	3	0
User organizations effectively monitor and evaluate project timelines and deliverables to ensure timely completion.	3	0.443

Source: Field Data (2023)

From the findings in the table above, it can be observed that user organizations play an essential role in monitoring and evaluation activities for road construction projects in Tanzania. The mean scores indicate that user organizations actively collaborate with project stakeholders (mean=3) and provide necessary resources and support for

monitoring and evaluation (mean=3). They also ensure that project scope is compatible with budget availability in accordance with regulations (mean=3), and effectively monitor project timelines and deliverables for timely completion (mean=3).

However, there is room for improvement in some areas, such as establishing clear communication channels with consultants (mean=2), taking responsibility for addressing challenges identified during monitoring and evaluation (mean=2), and ensuring that project data, information, and provided facilities and services are available to all stakeholders (mean=2). User organizations could also focus more on setting transparent criteria for selecting consultants and service providers (mean=2), as well as defining and communicating their objectives and goals clearly to all stakeholders involved in road construction projects (mean=2.81).

All the standard deviations are less than 3, indicating that there is minimum dispersion of opinion among the respondents. In conclusion, the findings highlight the crucial role of user organizations in the monitoring and evaluation of road construction projects in Tanzania. By addressing the identified areas of improvement, user organizations can ensure more effective monitoring and evaluation processes, leading to better project performance and outcomes.

The findings of the study indicate that communication has the biggest significant percentage of influence on the performance of road infrastructure projects in which communication according to the context of the study included a management

information system and a database that frequently provides data for M&E and met the information needs of the M&E staff, feedback to enable decision making and timely corrective actions.

This coincides with Mwanjiku (2015) who states that organizations poor communication is a barrier to user's organizations, such that the inadequacy of the management of information system is characterized by poor means of monitoring and evaluation, data storage, poor data processing, poor means of dissemination of monitoring and evaluation information. More so, the findings show that not only are these information systems in place, but they are also meeting the needs of the staff because the M&E materials available support data and communication sharing, as supported by this key informant interviewee;

Interview Response 1:

One interviewee mentioned that their organization experienced some challenges in terms of communication during the monitoring and evaluation of road construction projects. They noted that poor communication among team members and stakeholders often led to misunderstandings, delays, and inefficiencies in project implementation. The respondent expressed concern about the lack of clear communication channels and the difficulty in sharing information in a timely manner, which could negatively impact the overall quality of road construction projects in Tanzania.

The discussion shows that poor communication during the monitoring and evaluation process can have a significant impact on the effectiveness of road construction projects in Tanzania. Misunderstandings and delays due to communication challenges can lead to cost overruns, lower quality work, and potential project failure. Additionally, the lack of clear communication channels may hinder the ability of stakeholders to collaborate effectively, share vital information, and make informed decisions. Furthermore, poor communication can result in inadequate monitoring and evaluation, as stakeholders may not have access to essential information that would enable them to assess the project's progress accurately. In turn, this may cause inefficiencies in identifying and addressing issues or risks that might arise during the project implementation. Furthermore, interviewee 2, had these to say;

Interview Response 2:

Another respondent highlighted the issue of inadequate performance indicators in monitoring and evaluation, which could be linked to poor communication among stakeholders. The interviewee explained that when performance indicators are not clearly defined or communicated, it becomes challenging to measure progress and success accurately. This lack of clarity could lead to a disconnect between project objectives and the actual outcomes, affecting the overall quality and efficiency of road construction projects. The respondent emphasized the need for user organizations to invest in

improving communication strategies and ensure that performance indicators are well-defined, relevant, and measurable.

Observably, also inadequate performance indicators and poor communication among user's organizations and stakeholders can significantly affect the monitoring and evaluation process in road construction projects. When performance indicators are not clearly defined, communicated, or understood by all stakeholders, it becomes difficult to track progress, identify issues, and assess the overall success of a project. This lack of clarity and alignment may lead to inefficiencies, wasted resources, and lower quality work, ultimately impacting the project's ability to meet its objectives and serve the intended communities.

Furthermore, the absence of well-defined, relevant, and measurable performance indicators may hinder the ability of stakeholders to make informed decisions and take corrective actions when needed. This could result in a lack of accountability and transparency, which may further exacerbate communication challenges among stakeholders and compromise the overall effectiveness of the project.

Otherwise, Ogutu and Muturi (2017) argued that timely communication affects successful completion of road construction projects; which means that to avoid delays, convey correct information about road construction issues, information should be relayed on time and to the right parties. In addition to the above, findings also noted that apart from providing information that enhances project activities, M&E communication and feedback also provides clarity and change of practice for

the future projects, so that the project doesn't have to repeat the similar mistakes, as stated by one UNRA officer that it "enables quality decision making and clear judgment. Managers and supervisors can be able to make reviews in time and mitigate challenges in the future of the project". Lastly, the study shows that M&E communication and performance of road infrastructure projects have a positively significant relationship. This means that when M&E communication is harnessed and increased, the performance of the roads infrastructure projects also improves. This is in agreement with what Mwanjiku (2015) states that, lack of an effective communication strategy to convey information on M&E reports is considered a great challenge in construction projects.

Thus, Jili & Mthethwa (2016) referred monitoring and evaluation usage by organizations by making them referring to its essence such that when adopting effective monitoring and evaluations, one needs to be exposed to a number of concepts associated therewith. Monitoring is the continuous assessment of a programme or project in relation to the agreed implementation schedule. It is also a good management tool which should, if used properly, provide continuous feedback on the project implementation as well assist in the identification of potential successes and constraints to facilitate timely decisions. Unfortunately, in many projects, the role of this is barely understood and therefore negatively impacts on the projects (Jili& Mthethwa, 2016).

Sulemana et al., (2018) in an attempt to address this, it is necessary to have a common understanding of project design concepts upon which to build an

understanding of project monitoring and evaluation. Projects are an attempt, using specific inputs, to create a better situation for the beneficiaries. It should also be emphasized that projects are designed based on a linked set of hypotheses and assumptions and that, therefore, they are by nature somewhat “risky” ventures in that their particular approach may not have been tried before. Turning to project design process to emphasize the links between the different levels of the project design. One needs to take a quick “test” to ensure that the concepts of project inputs, outputs, effects, and impact are shared by all. Based on this identification of four levels in a project, project monitoring can be defined as the process of gathering information to compare the actual use of project inputs and completed outputs with the planned use of inputs and completed outputs. Project evaluation can be defined as the process of gathering information to assess the effects and impact of a project.

Sun et al., (2021) in their study established that monitoring evaluation have to be concerned with the transformation of inputs into outputs, but can also take the following forms: Physical and financial monitoring, Measuring progress of project or programme activities against established schedules and indicators of success. Process monitoring, identifying factors accounting for progress of activities or success of output production, Impact monitoring, Measuring the initial responses and reactions to project activities and their immediate short-term effects. Projects are monitored so as to: (1) assess the stakeholders’ understanding of the project, (2) minimize the risk of project failure, (3) promote systematic and professional management; and (4) assess progress in implementation.

Therefore, Turner et al., (2021) user's organization may fail to influence the targeted results of road construction projects due to lack of one needs to recognize the role played by the various stakeholders in monitoring. These players include the financiers, implementing agencies, project teams, interested groups such as churches, environmentalists, etc. It should further be recognized that, to be an effective management tool, monitoring should be regular but should take into account the risks inherent in the project/programme and its implementation. In many developing countries, one tends to find the following aspects in monitoring and evaluation of projects: (1) There is a dominant use of external consultants in monitoring and evaluation. (2) There is a dominant use of donor procedures and guidelines in monitoring. (3) Sustainability is often not taken into account. (4) Monitoring is sometimes used to justify past actions. (5) Concerns of stakeholders are not normally included. (5) Lessons learned are not incorporated.

Ideally, if one looks at these, it is clear that there is need to revisit these for sustainability in Tanzanian context. For example, overreliance on external consultants and donor may impact negatively on sustainability, an important aspect of any project. Decision-making in monitoring and design of project monitoring system. The purpose of this is to provide a conceptual framework that may be used in designing a project monitoring system.

Therefore, user's organizations instead of relying heavily on external practitioners, according to Lalendle et al., (2021)one needs to re-identify the purposes of a project monitoring system. It should be emphasized that, whereas a project monitoring

system is a process of comparing actual use of inputs and completed outputs with planned use of inputs and planned completed outputs, the purpose of a project monitoring system is to provide information to stakeholders that can be used to make decisions during the implementation of the project. Then, through brainstorming, groups can identify the possible stakeholders in a project.

Lalendle et al., (2021) among these could be the beneficiaries, the project management staff, regional and national ministry officials, and the donors/financiers. Each project is unique. It is therefore suggested that prior to starting of a project, a discussion should ensure to try and identify these. Among them could be: simple, quickly provides information for corrective action, cost-effective, flexible, accurate, comprehensive, relevant, accessible, leads to learning, transparent, and shares information up and down. Tools for monitoring one of the greatest weaknesses of management information is the lack of effective and timely communication of information to the users. Some monitoring staff often invest too much time and resources in gathering data which they frequently fail to interpret and present in a form that will convey the meaning of the progress made. This should be avoided if possible. Appropriate monitoring tools should be put in place and used accordingly (Lalendle et al., 2021).

Lalendle et al., (2021) the importance of communication in project management is equally critical. It is the “oil” that lubricates the project movement in the attainment of the stated objectives. Some of the most widely used tools for project monitoring, and their limitations include the following: Verbal communication. This is probably

the most effective mode of communication. Among its advantages is that it is quick, and its presentation can be adapted to concerns and questions of the audience. However, this type of tool to communicate monitoring information can lead to misunderstandings and sometimes denial of information.

4.3.3 To examine the Influence of Monitoring and Evaluation Planning on the Quality of Road Construction Projects in Tanzania

The third objective of this study to examine the Influence of Monitoring and Evaluation Planning on the Quality of Road Construction Projects in Tanzania. The respondents were then asked to tick the choices on a Likert scale that accurately reflects the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania. Table 10 below summarizes the findings regarding the objective. The findings of the study are presented in a table below.

Table 10: Monitoring and Evaluation Planning on the Quality of Road Construction Projects

Variable	Mean	Std. Deviation
Monitoring and evaluation planning are integrated into the initial stages of road construction projects.	3	1.0296
The monitoring and evaluation process are clearly defined and understood by all stakeholders.	2.671	1.01266
Monitoring and evaluation planning include regular progress reporting and performance assessment.	2	0.82221
Monitoring and evaluation planning effectively identify and addresses potential risks and challenges in road construction projects.	2.85	0.91344
Monitoring and evaluation planning establish clear roles and responsibilities for all stakeholders.	2	0.75306
Monitoring and evaluation planning allocate adequate time for quality assessments and improvements.	2.051	0.84608
The implementation of monitoring and evaluation planning ensures timely completion of road construction projects.	1.9779	1.02897
Monitoring and evaluation planning include a quality assurance plan to enhance project outcomes.	2.6287	0.7503
Monitoring and evaluation planning ensure that stakeholder expectations are met throughout the project lifecycle.	2.88	0.53732
The quality of workmanship in road construction projects is directly influenced by effective monitoring and evaluation planning.	2.6176	0.90406

Source: Field Data (2023)

From the findings in the table above, it can be inferred that monitoring and evaluation planning play a significant role in the quality of road construction projects in Tanzania.

The mean scores reveal that monitoring and evaluation planning are integrated into the initial stages of road construction projects (mean=3) and that the quality of

workmanship in road construction projects is directly influenced by effective monitoring and evaluation planning (mean=2.6176). The findings also indicate that monitoring and evaluation planning effectively identify and address potential risks and challenges in road construction projects (mean=2.85) and ensure that stakeholder expectations are met throughout the project lifecycle (mean=2.88).

However, there are areas where improvement is needed, such as clearly defining and understanding the monitoring and evaluation process by all stakeholders (mean=2.671), including regular progress reporting and performance assessment (mean=2), establishing clear roles and responsibilities for all stakeholders (mean=2), and allocating adequate time for quality assessments and improvements (mean=2.051). The implementation of monitoring and evaluation planning to ensure the timely completion of road construction projects also requires attention (mean=1.9779).

All the standard deviations are less than 3, which indicates that there is minimum dispersion of opinion among the respondents. In conclusion, the findings emphasize the importance of monitoring and evaluation planning in enhancing the quality of road construction projects in Tanzania. By addressing the identified areas of improvement, effective monitoring and evaluation planning can lead to better project performance, timely completion, and overall higher quality outcomes for road construction projects.

Likewise, Dube et al., (2021) found out that M&E is a program asset, not a burden. A comprehensive and well-designed M&E plan is a key asset of any program. For some managers and staff, the extensive start-up efforts needed for the plan's development may be regarded as a burden. Additionally, a plan, even one that is well designed, can be a waste of time and resources if it is not utilized for program improvement. However, when a plan is used to improve a program at all levels, it is a key investment for the success of programs. Local ownership is fundamental to increased utilization and sustainability. Embracement and ownership of the plan by the managers and staff who will be using it are essential for maximum productivity. The best way to ensure the ownership of the system by local organizations is their active involvement at all stages design, data collection, and analysis.

In addition, Gooding et al., (2018) for M & E planning ownership is important for the results to be utilized to the maximum extent and for future M&E exercises to be conducted without external support. Leadership continuation and commitment is requisite. Designing and developing a thorough M&E plan requires a lengthy development and implementation process, which pays off in the long term. The impact of a sound M&E plan on continuous performance improvement is better understood when the plan is implemented over a number of years. In Turkey, continued support of the plan by the leadership at both USAID and Turkish organizations has helped sustain and institutionalize the efforts. In addition, the findings also suggest that M&E planning is an integral part of any project, which is normally done during the phase one of the project cycle, while carrying out feasibility study of the project. The phase one of the projects includes clearly

outlining the projects objectives and making financial arrangement for the project in question, as this key informant interviewee seemed to agree that;

The compensations that were made helped solve issues of conflicts between contractors and the members of the society especially on Road. Failure to plan means planning to fail.

More so, Singh et al., (2018)notes that M&E planners should include a clearly delineated monitoring and evaluation plan as an integral part of the overall project plan. Having a clearly delineated monitoring and evaluation plan ensures that monitoring and evaluation activities are given the due attention they require and are not treated as a peripheral function on the project.

Klostermann et al., (2018) revealed that developing a Monitoring and Evaluation Plan for a successful M&E process. It is important to have an organized plan in place before launching an evaluation process. This ensures that the entire process runs smoothly and that everyone involved knows what to expect. Taking the time to plan out the evaluation process, helps to ensure that meaningful results are obtained which can be used to inform future decision-making. A well-planned evaluation process should start with identifying the criteria that will be used to measure success.

This process involves, setting SMART goals to assess progress against goals and objectives; Types of data to be collected, how often this data should be collected and analyzed, and who will be responsible for collecting the data; tracking progress to

evaluate whether or not the desired outcomes have been achieved. Identifying and collecting the right data is crucial to ensure that the results of the evaluation will be meaningful and actionable. Gathering information from numerous sources gives you the most accurate and complete data set to evaluate. It's important to evaluate the data objectively, without bias, to ensure that the results of the evaluation process are accurate and relevant (Klostermann et al., 2018).

As a result, Vincent et al., (2020) documenting the process is also essential to ensure that the evaluation results are reproducible, keeping the evaluation process transparent and accountable. Besides establishing clear and consistent criteria to assess progress against goals and objectives, it is also important to continuously monitor the implementation of the evaluation process itself. This monitoring helps organizations ensure that their evaluation process remains transparent, efficient, and effective over time. Monitoring allows for continued course correction as needed, while evaluation allows for the exploration of successes and failures, to inform future planning. It is important to take into account both quantitative and qualitative data, to get a better understanding of the effectiveness of your initiatives. To ensure maximum success, the evaluation process should be ongoing, with regular reviews and updates. This monitoring process should be consistent and carried out in order to properly evaluate the effectiveness of any plan (Vincent et al.,2020).

Vincent et al., (2020) the evaluation process should also involve collecting data from all stakeholders, such as beneficiaries, customers, employees, and partners. Once the data is collected, it should be analyzed and used to inform decisions going forward.

Thus, it is clear from the evaluation process that accurate steps have been taken to ensure the results of the process can inform future decision-making within the organization. Developing a comprehensive monitoring and evaluation plan is essential to ensure that the monitoring and evaluation process will be successful.

Kabeyi (2019) found out that M & E planning is attached to budgetary allocation and its influence on road infrastructure projects. This therefore means that the budget is usually channeled to its right purpose which is M&E. This seems to stress the fact that most of the road infrastructure projects under TANROADS are government funded or donor funded, and hence a strict monitoring and accountability mechanism. The findings also are in concurrence with what a key informant interviewee who said that,

Contrary to the response, some interviewees might argue that even though a realistic portion of the M&E budget is allocated during the planning stage, it does not guarantee that the M&E capacity will be fully built or effectively utilized. Despite the budget allocation helping to improve the delivery of road project results, there may still be challenges in implementing M&E activities due to factors such as inadequate communication, lack of clear performance indicators, or insufficient stakeholder engagement.

Moreover, although the budget allocation may cater to essential activities such as carrying out assessments and identifying road routes, it is important to recognize that this is only one aspect of M&E planning. In order to ensure the effective monitoring and evaluation of road construction projects, user organizations and other stakeholders must also invest in other critical aspects, such as building M&E capacity, establishing clear communication channels, and defining performance indicators.

It is also possible that even with a well-allocated M&E budget, external factors such as changing market conditions, fluctuations in material costs, or unforeseen challenges may impact the overall success of the project. In such cases, it is crucial for user organizations to be adaptable and responsive, adjusting their M&E strategies as needed to ensure the quality and efficiency of road construction projects.

In summary, while budget allocation is an important aspect of M&E planning, it is not the only factor that determines the successful implementation of monitoring and evaluation activities in road construction projects. User organizations must also consider other aspects such as communication, performance indicators, and stakeholder engagement to ensure the overall success of their projects. Finally, findings also indicated that despite the benefits of proper M&E budget allocation in building capacity, there lays a challenge of limited budgets as also stressed by the following statement from the key informant;

There is normally a deficit budget to work with under monitoring and evaluation planning compared with the amount of work to be accomplished. The budget allocated is not effective enough for the operation of all activities in road infrastructure

The findings show that a common challenge faced during monitoring and evaluation (M&E) planning in road construction projects is the insufficient budget allocated to carry out all the necessary activities. This deficit budget can result in various issues, ultimately affecting the overall quality and efficiency of road construction projects in Tanzania.

Firstly, when there is a budget deficit, user organizations and stakeholders may be forced to prioritize certain activities over others, leading to the neglect of some essential aspects of M&E. This can hinder the comprehensive evaluation of project performance and may result in overlooking critical issues that need to be addressed. Secondly, insufficient budget allocation can impede the proper implementation of M&E activities. For example, limited funds may restrict the hiring of qualified M&E personnel or the procurement of necessary equipment and resources, which are vital to the effective monitoring and evaluation of road construction projects.

Additionally, budget constraints may limit the extent of stakeholder engagement in the M&E process. This could result in inadequate communication and collaboration among stakeholders, which is essential for the successful implementation of M&E activities. Finally, an insufficient M&E budget can also impact the quality of workmanship and the overall delivery of road construction projects. When there is a

lack of financial resources, corners may be cut in construction processes, leading to substandard work, delays, or even project failure. In light of these responses, it is evident that addressing budget deficits in monitoring and evaluation planning is crucial for the successful implementation of road construction projects in Tanzania. User organizations and stakeholders should advocate for adequate funding for M&E activities and allocate resources effectively to ensure comprehensive and effective monitoring and evaluation.

These findings agree with the recommendations of Kaschny&Nolden(2018)that clear organizational structures and clarity of roles and responsibilities within an organization, makes each individual employee aware of the context in which they perform their tasks. Also, the allocation of responsibilities for monitoring and evaluation to staff other than M&E focal points resonates with recommendations of Tengan & Aigbavboa (2017)that it is important to have structures and an enabling culture to support the process when implementing M&E systems.

These findings align with positions taken by previous researchers such as Callixtus & Clinton (2016) and Ochieng et al., (2018) who pointed out that for project improvement and success, project stakeholders involved in M&E should be provided with capacity building on technical gaps in Monitoring and Evaluation. Similarly, a unit increase on effectiveness of project M&E plan leads to 0.816 increase in performance of educational projects in NGOs. These findings support Micah (2017) assertion that staff should participate in the development of M&E plans as it presents

a learning opportunity which leads to development of a common understanding among implementing staff and thereby improving on project performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Finding

The study was about the quality of monitoring and evaluation practices in road construction projects, the role of user's organizations in monitoring and evaluation of road construction projects, and the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania.

5.2 The quality of monitoring and evaluation practices in road construction projects in Tanzania.

Hence, the research findings indicate that the quality of road construction projects in Tanzania is largely influenced by factors related to monitoring and evaluation. A well-structured and comprehensive monitoring and evaluation process plays a crucial role in enhancing the quality of such projects. This suggests that having clear procedures, guidelines, and frameworks in place can facilitate better project outcomes by ensuring that issues and challenges are identified and resolved in a timely manner. Active stakeholder involvement in the monitoring and evaluation process is also critical for the success of road construction projects. When stakeholders, such as government agencies, contractors, and community members, are actively engaged in the process, it fosters a sense of ownership and accountability, leading to better decision-making and resource allocation. Engaging stakeholders also ensures that the needs and concerns of different parties are taken

into account, resulting in a more inclusive and effective approach to project management.

Regular monitoring and evaluation activities throughout the project lifecycle contribute to the overall quality of road construction projects. When such activities are conducted consistently, it enables project teams to track progress, identify bottlenecks, and make data-driven decisions to enhance project outcomes. This continuous feedback loop helps project teams to stay on track and adapt their strategies as needed, ensuring that project goals are met in a timely and efficient manner. Ongoing training and capacity building for project teams in monitoring and evaluation practices is another vital factor for the success of road construction projects. Equipping teams with the necessary skills and knowledge can empower them to effectively carry out their roles and responsibilities, leading to improved project performance. This investment in human resources also contributes to the long-term sustainability of road infrastructure projects, as it promotes a culture of learning, continuous improvement, and professional development.

5.3 The role of user's organizations in monitoring and evaluation of road construction projects in Tanzania

The second objective of this study was to determine the influence of the role of user organizations in the monitoring and evaluation of road construction projects in Tanzania. The findings show that user organizations play an essential role in monitoring and evaluation activities for these projects. User organizations actively collaborate with project stakeholders and provide necessary resources and support

for monitoring and evaluation. They also ensure that the project scope is compatible with budget availability, in accordance with regulations, and effectively monitor project timelines and deliverables to ensure timely completion.

However, there is room for improvement in some areas. User organizations could enhance their efforts in establishing clear communication channels with consultants, taking responsibility for addressing challenges identified during monitoring and evaluation, and ensuring that project data, information, and provided facilities and services are available to all stakeholders. They could also focus more on setting transparent criteria for selecting consultants and service providers, as well as defining and communicating their objectives and goals clearly to all stakeholders involved in road construction projects.

5.4 The influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania

The third objective of this study aimed to examine the influence of monitoring and evaluation planning on the quality of road construction projects in Tanzania. The findings suggest that monitoring and evaluation planning play a significant role in the quality of these projects. Monitoring and evaluation planning are integrated into the initial stages of road construction projects, and the quality of workmanship is directly influenced by effective monitoring and evaluation planning. The findings also indicate that planning effectively identifies and addresses potential risks and challenges in road construction projects and ensures that stakeholder expectations are met throughout the project lifecycle.

However, there are areas where improvement is needed. These include clearly defining and understanding the monitoring and evaluation process by all stakeholders, including regular progress reporting and performance assessment, establishing clear roles and responsibilities for all stakeholders, and allocating adequate time for quality assessments and improvements. Additionally, attention is required to ensure the timely completion of road construction projects through the implementation of monitoring and evaluation planning.

5.5 Conclusion

In conclusion, this study highlights the critical role of monitoring and evaluation practices, user organizations, and planning in determining the quality of road construction projects in Tanzania. A well-structured and comprehensive monitoring and evaluation process, active stakeholder involvement, and regular monitoring and evaluation activities throughout the project lifecycle are key factors that contribute to successful road construction projects.

User organizations play an essential role in supporting and collaborating with project stakeholders, ensuring that project scope, budget, and timelines align with regulations and expectations. However, improvements in communication channels, addressing challenges, and providing transparency in selecting consultants and service providers are necessary to further enhance the effectiveness of user organizations in these projects. Lastly, effective monitoring and evaluation planning is crucial in ensuring the quality of road construction projects. By integrating planning into the initial stages of projects, addressing potential risks and challenges,

and meeting stakeholder expectations, the quality of road construction projects can be significantly improved.

Addressing the identified areas of improvement and focusing on these key factors will ultimately lead to better project performance, timely completion, and overall higher quality outcomes for road construction projects in Tanzania.

5.6 Recommendations

Based on the study findings, the following recommendations were made regarding the role of monitoring and evaluation in performance of road construction projects in Tanzania. Therefore, the study recommends that TANROADS management should uphold and continue to strengthen the M&E systems of managing various activities. They should ensure there is always a policy or set standards describing the roles and responsibilities under which M&E systems operate. There should always be an action plan and procedure that guides the activities of M&E. Sufficient finances should always be separately allocated to run M&E activities and processes, to provide for M&E tools and equipment, for hiring and training of staff. Lastly but not least, the study also recommends that M&E activities should always have enough time allocated to them.

Secondly, the study also established that M&E capacity also had a moderate positive significant influence on the performance of road infrastructure projects. The study therefore recommends that the road infrastructure projects' budgets should always have a clear and adequate provision for M&E activities. Funds for M&E activities

should always be channeled to the right purpose. There should always be a realistic estimation for M&E.

TANROADS should ensure that there is proper source of funding for M&E outcomes. In order to build an adequate supply of human resource capacity; proper training to motivate and enhance staff commitment, technical capacity, and experience for M&E staff should never be compromised. Thirdly, the study recognized that M&E communication had the highest positive significant influence on the performance of road infrastructure projects.

Therefore, the study recommends that TANROADS should always ensure there are materials that support data sharing, a management information system or database that meets the information needs of staff which will frequently provide data for M&E. They should ensure that all the staff get feedback after measurement of project activities in order to enable quality decision making and clear judgments of actions to be undertaken, hence, informing and facilitating changes in practice.

The TANROADS management should recognize the importance of trust and communication among the parties involved in the contract. This is because trust and communication play a greater role on the performance of road construction projects as the study revealed a positive and significant relationship to construction project performance. There is a need for government to have a long-term plan for road construction projects under TANROADS not be stalled and abandoned when political leadership that initiated them change as well as change in government

policies such as monetary and fiscal policies that may increase in the cost of construction materials and equipment.

It is recommended for project managers to consider, plan and implement M&E on all projects undertaken from inception to completion. This will help reduce the risk of re-work, which possibly would have resulted in the increase project cost and time. Also, provision for M&E should be considered during budgeting and planning for key service components of the project. Since Monitoring and Evaluation have been revealed in this study to have a great significance in the performance of roads construction projects, and its roles are efficient in giving good result of the project, so it is recommended that education should be given to managers so as to let them use M&E tools.

Since, project monitoring and evaluation are significantly associated with project performance in Dar es salaam should make sure that they prepare their project and perform it in accordance to the project schedule. This may help the agency TANROADS to overcome unnecessary variations, and delay which may tends to affect the performance of construction projects.

5.7 Area for Further Study

There are several areas for further study in the context of monitoring and evaluation (M&E) practices in construction project management: Impact of technology on M&E processes: Investigate how emerging technologies, such as artificial intelligence,

machine learning, and the Internet of Things (IoT), can improve the efficiency and effectiveness of M&E practices in construction project management.

Cross-cultural differences in M&E practices: Study the differences in M&E practices across various countries and cultures, and explore how these differences may impact construction project management outcomes. M&E practices in sustainable construction projects: Investigate the role of M&E in promoting sustainable construction practices and assess how M&E can contribute to the achievement of environmental, social, and economic goals in construction projects.

Stakeholder perceptions and expectations of M&E: Examine how various stakeholder groups, such as contractors, clients, and local communities, perceive and engage with M&E practices in construction project management. This may help to identify areas of misalignment or potential improvements in communication and collaboration. M&E best practices in different construction sectors: Compare M&E practices across various construction sectors, such as residential, commercial, and infrastructure projects, to identify industry-specific best practices and potential areas of improvement.

Relationship between M&E practices and project risk management: Investigate the impact of M&E practices on identifying, assessing, and mitigating risks in construction projects, and explore how M&E can contribute to more effective project risk management. Training and capacity building in M&E: Assess the effectiveness

of various training methods and capacity-building initiatives in enhancing M&E skills and knowledge among construction project management professionals.

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