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DEPARTMENT OF PROJECT MANAGEMENT

EFFECTS OF PROJECT QUALITY MANAGEMENT PRACTICES: A CASE STUDY OF GIFT REAL ESTATE IN ADDIS ABABA

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Declaration

I declare that this thesis is my original work and has not been submitted to any other university. All sources of information and materials used in this research have been properly acknowledged. I affirm my commitment to academic integrity by ensuring that all contributions and references are accurately cited. This declaration reflects my dedication to ethical practices in research and writing, upholding the standards expected in academic work.

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Approval sheets

This thesis has been submitted for examination with my approval as the thesis advisor, as well as the approval of both the internal and external examiners. I have reviewed the content thoroughly and believe that it meets the academic standards required for this level of research. The examination process will evaluate the quality and contribution of this work within the field of study. I look forward to receiving feedback from the examiners, which will be invaluable for the final assessment and any necessary revisions.

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Table of contents

Contents

Declaration i

Approval sheets ii

Acknowledgment iii

Table of content iv

List of tables vii

Acronym's and Abbreviations viii

Abstract ix

CHAPTER ONE 1

INTRODUCTION 1

1.1. Background of the study 1

1.2. Statement of the problem 2

1.3. Research questions 5

1.4. Objectives of the study 5

1.4.1. General objective 5

1.4.2. Specific objectives 5

1.5. Significance of study 6

1.6. Scope of the Study 6

1.7. Limitations of the Study 7

1.8. Operational definitions: 7

1.9. Organization of the Study 8

CHAPTER TWO 9

2. REVIEW OF RELATED LITERATURE 9

2.1. Theoretical review 9

2.1.1. Project and Project Management 9
2.1.2. Quality and Project Quality Management 10
2.1.3. Practices of Project Quality Management 11
2.1.4. Challenges of Project Quality Management 12
2.1.5. Project Quality Management Processes 14
2.1.6. Quality Planning 15
2.1.7. Quality Assurance 15
2.1.8. Quality Control 16
2.1.9. Employee Training: Enhancing Organizational Success Continuous Learning 16
2.1.10. Communication and Interaction 18
2.2. Empirical Literature Review 20
CHAPTER THREE 25
3. RESEARCH METHODOLOGY 25
3.1. Introduction 25
3.2. Study Area 25
3.3. Research Design 26
3.4. Research Approach 26
3.5. Study Population 26
3.5.1. Sample size determination 27
3.5.2. Sampling technique 28
3.6. Sources and Data Types 28
3.6.1. Method of data collection 29
3.6.2. Procedure of Data Collection 29
3.7. Data analysis 29
3.8. Reliability and validity test 30

3.8.1. Reliability Test 30
3.8.2. Validity Test 30
3.9. Ethical Considerations 30
CHAPTER FOUR 32
4. RESULT AND DISCUSSION 32
4.1. Response rate 32
4.2. Socio demographic information of the response 33
4.3. Section two: Quality Management Factors 35
4.4. Interview results 48
4.5. Discussion 50
CHAPTER FIVE 52
5. Summary of finding, conclusion and recommendation 52
5.1. Summary of finding 52
5.2. Conclusions 53
5.3. Recommendations 55
5.4. Further Research Directions 56
Reference 57
APPENDIX 61
QUESTIONNAIRES 61
Part one: Questionnaire on Socio-Demographic Information 62
Part two: Quality management factors, as you requested: 62
Part three: Key informant Interview question 65

List of tables

2.1. Table summarizing the major findings and gaps from various studies on project quality management: 23
Table 3.1: Target Population Distribution for Project Quality Management 27
Table 3.2. Sample Size Calculation by Proportions 28
Table 4.1. Summarizing the response rate for the distributed questionnaires. 32
Table 4.2. Socio demographic information of the response 33
Table 4.3. Quality Planning Descriptions 35
Table 4.4. Quality Assurance Factors Results 37
Table 4.5. Quality Control Factors Results 39
Table 4.6. Top Management Commitment to Quality Management Results 41
Table 4.7. Quality Management Implementation Problems/Challenges Results 43
Table 4.8. Quality Management Tools and Techniques Applied Results 46

Acronym's and Abbreviations

Here's are list arranged in alphabetical order:

BIM – Building Information Modeling

CPM – Critical Path Method

FMEA – Failure Mode and Effects Analysis

Gantt – Gantt Chart

ISO – International Standards Organization

KPIs – Key Performance Indicators

PDCA – Plan, Do, Check and Act

PM – Project Management

PMBOK – Project Management Body of Knowledge

PMI – Project Management Institute

QM – Quality Management

RFP – Request for Proposal

ROI – Return on Investment

SOW – Statement of Work

SPSS – Statistical Package for Social Science

TQM – Total Quality Management

WBS – Work Breakdown Structure

Abstract

This study assesses project quality management practices at Gift Real Estate in Addis Ababa, employing a descriptive research design with a convergent parallel approach. The methodology integrates both qualitative and quantitative data, offering a comprehensive view of current practices. Data collection included structured surveys, semi-structured interviews, field observations, and document reviews. The target population comprised 676 professionals across eleven construction sites, focusing on 330 project implementers such as project managers, site engineers, and inspectors. From this group, 181 participants were selected using a simple random sampling technique to ensure fair representation. Findings reveal that project quality planning is generally well perceived. Project Quality Objectives achieved a mean score of 3.75, reflecting clarity and effective communication among stakeholders. In contrast, the Site Organization Chart scored 3.4, indicating issues with defining roles and responsibilities. Quality assurance practices were evaluated positively, with scores ranging from 3.8 to 3.9, demonstrating strong adherence to established procedures. The results suggest that Gift Real Estate has effective systems for planning and assuring quality but requires improvements in organizational clarity and communication. Recommendations include revising the organizational structure to clarify roles, strengthening communication with subcontractors to reduce misunderstandings, and standardizing quality management practices across all projects to enhance consistency and accountability. Overall, this research highlights both strengths and gaps in Gift Real Estate's quality management practices. It provides practical strategies for improvement that can enhance project performance, foster greater accountability, and improve stakeholder satisfaction.

Keywords: *Project Quality Management, Quality Assurance, Quality Planning, Construction Management*

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Project quality management is essential for meeting construction standards and delivering stakeholder value. The industry faces challenges like rising costs and delays, highlighting the need for effective practices, especially in developing countries such as Ethiopia, where quality management is increasingly emphasized. Globally, the construction industry is recognized as a significant contributor to economic development, accounting for approximately 13% of the world's GDP (World Bank, 2021). However, the sector is often plagued by inefficiencies, with studies indicating that up to 30% of project costs can be attributed to rework and quality failures (KPMG, 2020). As a result, many countries have adopted various quality management frameworks, such as Total Quality Management (TQM) and ISO 9001, to improve project outcomes and ensure compliance with international standards (Gonzalez et al., 2022).

In developed countries, the implementation of robust quality management practices has led to improved project delivery times and reduced costs. For instance, the use of Building Information Modeling (BIM) has revolutionized project planning and execution, allowing for better quality control and risk management (Azhar, 2019).

However, the adoption of such practices in developing regions remains limited due to various factors, including inadequate training, lack of resources, and insufficient regulatory frameworks (Ofori, 2019). In Africa, the construction industry is vital for infrastructure development and economic growth. However, the sector faces unique challenges, including political instability, corruption, and inadequate project management skills (Adeleke et al., 2021). Studies have shown that many African countries struggle with implementing effective quality management practices, leading to project failures and cost overruns (Mokhathi et al., 2020). For instance, a study conducted in South Africa highlighted that poor quality management practices were a significant contributor to project delays and budget overruns, emphasizing the need for improved training and capacity building in project management (Mokhathi et al., 2020). Similarly, in Nigeria, the lack of adherence to quality standards has resulted in numerous building collapses, prompting calls for stricter enforcement of quality management regulations (Adeleke et al., 2021).

Ethiopia's construction sector has experienced rapid growth in recent years, driven by government initiatives aimed at improving infrastructure and housing (World Bank, 2022). However, the country faces significant challenges in project quality management. A study by Solomon (2023) identified that many construction firms in Ethiopia lack the necessary quality management systems, leading to substandard project outcomes. Moreover, the Ethiopian construction industry is characterized by a high level of informality, with many small and medium-sized enterprises (SMEs) operating without proper quality management frameworks (Tadesse, 2023). This lack of formalization contributes to inconsistent quality standards and project inefficiencies. The Gift Real Estate project in Addis Ababa serves as a case study to explore the practices and challenges of project quality management in the Ethiopian context. By assessing the quality management practices employed in this project, the study aims to identify key areas for improvement and provide recommendations for enhancing project performance. In conclusion, the assessment of project quality management practices is crucial for improving construction outcomes globally, particularly in developing regions like Africa and Ethiopia. The challenges faced in implementing effective quality management systems highlight the need for targeted interventions, including training, capacity building, and the adoption of international quality standards. By focusing on specific case studies, such as the Gift Real Estate project, researchers can contribute valuable insights that can inform policy and practice in the construction industry. The main objective of the study is to assess the project quality management practices employed in the Gift Real Estate project in Addis Ababa.

1.2. Statement of the problem

Quality management is critical for ensuring client satisfaction and the long-term viability of construction firms. However, many organizations struggle to maintain essential quality standards in today’s competitive market. Rahman and Keng (2015) emphasize that effective quality management is crucial for survival, while Harris and McCaffer (2012) highlight the need for a robust system that enables efficient use of tools and processes.Despite this, many firms lack comprehensive quality management practices, leading to poor project outcomes and client dissatisfaction. Recent research indicates that deficiencies in quality management often result in delays, cost overruns, and a loss of stakeholder trust (Mohammed, 2022). Therefore, it is urgent

for construction companies to reassess and enhance their quality management strategies to meet industry standards and maintain competitiveness.

Despite the recognized importance of quality management, many construction firms fail to implement comprehensive quality management practices, leading to subpar project outcomes and client dissatisfaction. Recent studies, such as those by Mohammed (2021), indicate that inadequate quality management is a widespread issue in the industry, often resulting in project delays, cost overruns, and a deterioration of client trust. This situation highlights the urgent need for construction firms to reassess and enhance their quality management strategies to ensure compliance with industry standards and meet stakeholder expectations. Addressing these challenges is critical for the survival and growth of construction firms in a competitive landscape.

However, the implementation of quality management practices in construction is often lacking, particularly in developing countries. Joubert, Cruywagen, and Basson (2015) found a significant disregard for quality management in the South African construction industry, which mirrors similar trends in Ethiopia. Previous studies in Ethiopia have highlighted a range of factors adversely affecting quality management practices. For instance, Said (2019) identified critical barriers, such as insufficient managerial support, a lack of commitment to quality, and inadequate attention to quality issues. These challenges contribute to poor project outcomes, which are particularly evident in the Ethiopian construction sector.

As it is pointed out in Nega (2008) that successful project delivery is contingent upon completing construction projects within the defined cost, quality, and time parameters. Unfortunately, many projects in Ethiopia fail to meet these criteria, leading to dissatisfaction among clients, contractors, and consultants. This is corroborated by Temesgen (2007), who identified three primary challenges contributing to project failures in Ethiopia's public sector: resource inadequacies, including a shortage of suitably qualified personnel, financial constraints, and limited access to quality materials. The urgency to assess the establishment of quality management practices across various construction sectors has never been greater. Quality management should be recognized as a critical component alongside traditional project parameters such as scope, duration, and cost. If stakeholders express dissatisfaction with project

management quality or performance outcomes, it becomes imperative for the project team to address these concerns.

This includes evaluating quality assurance and quality control mechanisms to align project deliverables with stakeholder expectations. In light of the above issues, the Ethiopian construction industry faces significant challenges that necessitate a comprehensive examination of its quality management practices (Mohammed 2021).

Recent local studies have further illuminated the state of quality management in Ethiopian construction. For instance, a study by Mohammed (2021) indicated that many construction firms in Ethiopia do not adhere to established quality standards, resulting in frequent project delays and cost overruns. Moreover, stakeholders often lack the necessary training to implement quality management practices effectively. This gap underscores the need for enhanced training programs focused on quality management principles tailored to the Ethiopian context. Furthermore, the integration of quality management into the organizational culture of construction firms is vital for fostering an environment conducive to continuous improvement. As highlighted by Abebe (2020), organizations that prioritize quality management not only enhance their project outcomes but also improve employee morale and client trust. The study identifies several critical gaps in the implementation of quality management practices within the Ethiopian construction sector. Despite acknowledging the importance of quality management, many firms lack comprehensive strategies, leading to poor project outcomes and client dissatisfaction. Factors such as insufficient managerial support, inadequate training, and a general disregard for quality standards hinder effective implementation. Moreover, a significant shortage of qualified personnel and resources exacerbates the challenges in implementing effective quality management. This underscores the urgent need for targeted interventions, such as improved training programs and the incorporation of quality management principles into the organizational culture, to enhance project delivery and ensure stakeholder satisfaction. The primary objective of this study was to assess project quality management practices, specifically focusing on Gift Real Estate in Addis Ababa. So, the gap is: a lack of context-specific, comprehensive studies that assess and evaluate quality management practices within Ethiopian real estate projects, combining both qualitative and quantitative methods for deeper insights.

1.3. Research questions

- What are the quality management processes, policies, tools, and techniques are commonly utilized in the Gift Real Estate projects in Addis Ababa?
- How are the planning, implementation, and control processes of quality management conducted within the Gift Real Estate projects?
- What challenges are encountered in managing and implementing quality management practices at Gift Real Estate?
- How does employee training vary, and what is the level of participation in quality management implementation at Gift Real Estate?
- What is the level of involvement of top management in the quality management processes of Gift Real Estate projects?

1.4. Objectives of the study

1.4.1. General objective

The general objective of the study is to assess the project quality management practices: in case of gift real estate in Addis Ababa.

1.4.2.Specific objectives

- To identify the quality management processes, policies, tools, and techniques commonly utilized in Gift Real Estate projects in Addis Ababa.
- To examine how the planning, implementation, and control processes of quality management are conducted within Gift Real Estate projects.
- To investigate the challenges encountered in managing and implementing quality management practices at Gift Real Estate.
- To analyze the variation in employee training and the level of participation in quality management implementation at Gift Real Estate.
- To assess the level of involvement of top management in the quality management processes of Gift Real Estate projects.

1.5. Significance of study

The significance of this study lies in its focus on evaluating project quality management practices within the Gift Real Estate project in Addis Ababa. As the real estate sector continues to expand in Ethiopia, understanding the effectiveness of quality management is crucial for ensuring successful project outcomes.

By examining the practices implemented in this particular project, the study aims to identify strengths and weaknesses in the current approach, providing valuable insights for stakeholders involved in real estate development. Effective quality management not only enhances project efficiency but also improves stakeholder satisfaction and reduces costs associated with rework and delays. This research will contribute to the body of knowledge on project management in the real estate industry, offering practical recommendations that can be applied to future projects. Furthermore, it will help project managers, investors, and policymakers understand the importance of integrating quality management practices into their strategies, ultimately fostering better project performance and promoting sustainable development in the region. By addressing these critical aspects, the study aims to serve as a foundational resource for improving quality management practices in Ethiopia's growing real estate market.

1.6. Scope of the Study

The general objective of this study was to assess project quality management practices, with a specific focus on Gift Real Estate in Addis Ababa. The scope encompasses a detailed examination of current quality management strategies employed by the company, including planning, assurance, and control processes. The study aims to identify strengths and weaknesses in these practices, as well as the factors influencing their effectiveness.

Additionally, the research explains the perspectives of various stakeholders involved in the construction projects, such as project managers, engineers, and quality assurance personnel. By integrating both qualitative and quantitative data, the study seeks to provide a comprehensive understanding of how quality management impacts project outcomes and client satisfaction.

The geographical scope is limited to construction projects undertaken by Gift Real Estate within Addis Ababa, ensuring that the findings are contextually relevant and applicable to the local construction industry. Ultimately, the study aims to offer actionable recommendations to

enhance quality management practices within the organization and contribute to the broader discourse on quality management in Ethiopian construction.

1.7. Limitations of the Study

This study on project quality management practices at Gift Real Estate in Addis Ababa faces several limitations. It is geographically confined to one company, which may limit the generalizability of findings to other firms in Ethiopia. The sample size may also be relatively small, impacting the depth of insights. Additionally, subjective biases in qualitative data and restricted access to internal documents could affect reliability. Time constraints may limit the analysis of long-term trends, and the focus on quality management may overlook other critical factors influencing project success. These limitations should be considered when interpreting the study's results and recommendations

1.8. Operational definitions:

Project Quality Management: A set of processes and practices aimed at ensuring that a project's deliverables meet the required standards and stakeholder expectations, including planning, assurance, and control.

Quality Assurance: Activities and processes designed to provide confidence that quality requirements will be fulfilled, including systematic evaluations and audits during the project lifecycle.

Quality Control: The process of monitoring and measuring project outcomes against quality standards and specifications, involving regular inspections and testing to identify defects or variances.

Stakeholder Satisfaction: The degree to which project stakeholders, including clients, investors, and community members, feel that their needs and expectations are met by the project outcomes.

Project Deliverables: Specific outcomes or outputs produced as part of the project, which must adhere to predetermined quality criteria and specifications established at the project's outset.

1.9. Organization of the Study

This research thesis is organized as follows: The introductory chapter is followed by a literature review in the second chapter, which discusses relevant studies on the assessment of practices and challenges in project quality management, specifically focusing on the Gift Real Estate project in Addis Ababa. The third chapter outlines the research design and methodology employed in the study. In the fourth chapter, the analysis and interpretation of the collected data are presented. Finally, the fifth chapter concludes the study and provides policy recommendations based on the findings. This structured approach ensures a thorough examination of the topic, promoting a clear understanding of the practices and challenges related to project quality management within the context of the Gift Real Estate project.

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CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

This section provides an overview of the theoretical and empirical literature related to project quality management, along with a conceptual framework for the research. The theoretical review explores foundational concepts and models, while the empirical review synthesizes evidence from previous studies on the implementation and impact of quality management practices. The conceptual framework illustrates the relationships among key variables, offering a structured approach to understanding the factors that influence project quality management success.

2.1. Theoretical review

2.1.1. Project and Project Management

Project management is a vital discipline that facilitates the successful delivery of unique products, services, or results within defined constraints. According to the Project Management Institute (PMI, 2021), a project is defined as "a temporary endeavor undertaken to create a unique product, service, or result. This definition underscores the temporary and unique characteristics of projects, setting them apart from ongoing operational activities. Kerzner (2019) expands on this definition, stating that a project encompasses "any series of activities and tasks which contains a specific objective to be completed within pre-defined specifications," with defined start and end dates and the consumption of resources, including human and nonhuman assets. This highlights essential project elements: a defined objective, specific constraints (such as time and resources), and the utilization of various resources to achieve the desired outcome.

Project management is described as "the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements stated by stakeholders" (PMI, 2013). This process involves the coordinated use of resources to achieve project objectives within given constraints. The project management process typically consists of five main groups: project initiation, planning, execution, monitoring and control, and closure. While project management shares similarities with general management, the key distinction lies in the temporary and unique nature of projects (Christine, 2017). Traditional management focuses on ongoing operations and continuous improvement, whereas project management is dedicated to delivering specific, one-time outcomes.

The unique nature of projects presents several challenges for project managers, who must effectively manage diverse stakeholders, coordinate interdependent activities, and adapt to changing requirements while ensuring successful project completion. Essential skills for project managers include planning, risk management, communication, and leadership. Effective project management is crucial, as successful delivery can lead to increased efficiency, improved customer satisfaction, and enhanced competitive advantage. Conversely, poor project management can result in cost overruns, delays, and project failures, which can have significant repercussions for organizations (Christine, 2017). Project management is a critical discipline that enables the successful delivery of unique products, services, or results within defined constraints. By leveraging their knowledge, skills, tools, and techniques, project managers can effectively coordinate and control the resources necessary to achieve project objectives. As project complexity continues to rise, the demand for skilled project managers will grow, making this field increasingly valuable.

2.1.2. Quality and Project Quality Management

Quality is a critical aspect of project management, as it directly impacts the success and satisfaction of stakeholders. Knowles (2011) defines quality as "creating customer value, which stands to meet or exceed the customer expectations," while the International Organization for Standardization (ISO, 2015) describes it as "the ability of an organization's products and services to satisfy customers and the intended and unintended impact on relevant interested parties."

Project quality management, as defined by the Project Management Institute (PMI, 2013), involves the "processes and activities such as quality policies, objectives, and responsibilities of the implementer organization in a way to meet the needs and requirements of the customers and stakeholders." This emphasizes the importance of maintaining consistency in quality across projects, products, and services, as per the expectations of stakeholders, owners, and clients (Chandana, 2017). The quality management process includes three key components: quality planning, quality assurance, and quality control (PMI, 2013).

According to Kaiser and Raisinghani (2011), quality management enhances project management by focusing on meeting customer needs, preventing flaws and errors instead of relying on inspection, assigning management responsibility, and driving continuous improvement. Integrating quality into the design process and shifting from a reactive to a proactive mode of

quality management can lead to operational cost reduction (Kaiser & Raisinghani, 2011). The importance of quality management in project management cannot be overstated. By ensuring that the project's deliverables meet or exceed the customer's expectations, project managers can increase stakeholder satisfaction, reduce the risk of rework or costly errors, and improve the overall efficiency and effectiveness of the project (Knowles, 2011).

One of the key challenges in project quality management is balancing the trade-off between cost, time, and quality. Project managers must carefully weigh the impact of their decisions on these competing factors and ensure that the project's quality remains consistent with the stakeholder's requirements (PMI, 2013). Another challenge is the management of quality across multiple projects or programs. As organizations undertake more complex and interdependent projects, the need for a standardized and integrated approach to quality management becomes increasingly important (Chandana, 2017). Project managers must collaborate with quality assurance teams and other stakeholders to develop and implement consistent quality processes and metrics across the organization. To address these challenges, project managers can leverage various quality management tools and techniques, such as statistical process control, quality audits, and Lean Six Sigma (PMI, 2013). These approaches can help project teams identify and address quality issues proactively, continuously improve processes, and ensure that the project's deliverables meet the required standards. In conclusion, quality management is a critical component of project management, as it directly impacts the success and satisfaction of stakeholders. By integrating quality planning, assurance, and control into their project management practices, organizations can improve customer satisfaction, reduce costs, and enhance their overall competitiveness in the market.

2.1.3. Practices of Project Quality Management

Project quality management is a crucial aspect of ensuring the success and satisfaction of stakeholders in any project. At the core of this process are the three key components: quality planning, quality assurance, and quality control (PMI, 2013).

Quality planning involves establishing quality policies, objectives, and responsibilities within the project organization to meet the needs and requirements of customers and stakeholders (PMI, 2013). This includes defining quality standards, identifying critical quality factors, and developing a quality management plan that aligns with the project's overall objectives.

Quality assurance, on the other hand, focuses on the prevention of defects and the continuous improvement of processes (Solomon et al., 2016). This involves implementing quality management practices, such as process audits, statistical process control, and Lean Six Sigma, to ensure that the project's deliverables meet the defined quality standards. Quality assurance also emphasizes the importance of training and empowering project team members to identify and address quality issues proactively.

Quality control, in contrast, is the process of testing and inspecting the project's deliverables to uncover any defects or nonconformities (Solomon et al., 2016). This includes activities such as product inspections, acceptance testing, and control charts, which provide feedback to the project team and management on the quality of the work being performed. The decision to allow or deny the release of a product or service is then made by management based on the findings of the quality control process.

In the construction industry, the practice of project quality management requires a significant effort to achieve and improve the required standards for a project (Solomon et al., 2016). This includes ensuring that the project is well-planned and organized, providing value for money, and meeting the customer's expectations of fitness for purpose. Construction projects often involve complex processes and interdependent activities, making the need for robust quality management practices even more critical. By integrating these three components of quality management into their project management practices, organizations can improve customer satisfaction, reduce costs, and enhance their overall competitiveness in the market (PMI, 2013). However, achieving this balance between cost, time, and quality can be a significant challenge for project managers, who must carefully weigh the trade-offs and make informed decisions to ensure the project's success.

2.1.4. Challenges of Project Quality Management

The effective implementation of project quality management faces several challenges, as identified in the literature. One major challenge is the lack of commitment and support from top management. Without the backing and active involvement of senior leadership, the implementation of quality management practices can be severely hindered, leading to insufficient resources, inadequate training, and resistance to change throughout the organization (Jayawardane & Dissanayaka, 2018; Arditi & Gunaydin, 2016).

Additionally, inadequate training and education of project personnel on quality management techniques and tools can pose significant obstacles. If project team members do not understand the benefits and proper application of quality management tools, they are less likely to embrace and effectively utilize them (Arditi & Gunaydin, 2017; Ochieng & Price, 2017). Resistance to change from project team members, who may be accustomed to traditional quality control methods, can also hinder the adoption of new quality assurance practices (Ochieng & Price, 2013). Overcoming this resistance and fostering a culture of continuous improvement can be a significant hurdle for project managers. Moreover, ineffective communication and coordination among project stakeholders can impede successful quality management implementation (Arditi & Gunaydin, 2017; Ochieng & Price, 2012). A breakdown in communication or lack of alignment between parties involved can compromise the ability to maintain consistent quality standards and address issues promptly. The complexity and dynamic nature of construction projects, involving multiple subcontractors and suppliers, further complicate the maintenance of quality standards throughout the project lifecycle (Ofori & Toor, 2016). Finally, resource scarcity, including skilled personnel and financial constraints, can hinder the establishment of robust quality management systems (Jayawardane & Dissanayaka, 2018). Without necessary resources, project teams may struggle to invest in training, tools, and processes essential for effective quality management. Addressing these challenges requires a holistic approach that prioritizes quality management, fosters a culture of continuous improvement, and ensures the alignment and commitment of all project stakeholders. By overcoming these obstacles, organizations can enhance the effectiveness of their project quality management practices and improve overall project success.

2.1.5. Project Quality Management Processes

Project quality management is a fundamental aspect of project management, responsible for ensuring that the project deliverables meet the established quality standards and requirements (PMI, 2013). The Project Management Institute (PMI) outlines three key elements of the project quality management processes: quality planning, quality assurance, and quality control (PMI, 2013). Quality planning involves identifying the relevant quality standards, requirements, and metrics that will be used to measure the success of the project (PMI, 2013). This process includes defining the quality objectives, determining the necessary processes and resources, and documenting the quality management plan (PMI, 2013). The quality management plan serves as a blueprint for how the project's quality will be managed throughout its lifecycle (PMI, 2013).

Quality assurance, on the other hand, focuses on the evaluation and monitoring of the project's quality-related processes (PMI, 2013). This includes conducting audits, implementing quality control measures, and identifying opportunities for improvement (PMI, 2013). The goal of quality assurance is to ensure that the project is adhering to the established quality standards and that the necessary processes are in place to meet the project's quality objectives (PMI, 2013).

Quality control, the third element of project quality management, involves the monitoring and recording of the project's results to determine whether they comply with the defined quality standards (PMI, 2013). This process includes inspecting and testing the project deliverables, analyzing the results, and implementing corrective actions as needed (PMI, 2013).

Quality control helps to identify and address any deviations from the quality requirements, ensuring that the final product or service meets the stakeholders' expectations (PMI, 2013). Effective project quality management is essential for the successful delivery of a project (PMI, 2013). By carefully planning, assuring, and controlling the quality of the project, organizations can minimize the risk of nonconformance, reduce the overall cost of quality, and increase the satisfaction of stakeholders (PMI, 2013). One example of the importance of project quality management can be found in the construction industry. When building a new office complex, the project team must carefully plan the quality standards for the construction materials, the workmanship, and the overall design (PMI, 2013). Throughout the construction process, the team must conduct quality assurance activities, such as inspections and testing, to ensure that the work is being carried out according to the defined specifications (PMI, 2013). Finally, the team must

perform quality control measures, such as final inspections and acceptance testing, to verify that the completed building meets the required quality standards (PMI, 2013). In conclusion, project quality management is a critical component of project management that helps to ensure the project deliverables meet the defined quality standards and requirements (PMI, 2013). By effectively planning, assuring, and controlling the quality of the project, organizations can increase the likelihood of project success, reduce costs, and enhance stakeholder satisfaction (PMI, 2013).

2.1.6. Quality Planning

The quality planning process is the "process of identifying quality requirements and/or standards for the project and product and documenting how to demonstrate the product compliance" in accordance with the pre-defined quality standards (PMI, 2013, p. 227). This process uses various inputs such as the project scope baseline, stakeholder register, cost performance baseline, schedule baseline, risk register, enterprise environmental factors, and organizational process assets (PMI, 2013). The main activities in quality planning include identifying quality requirements, documenting how to achieve quality, validating quality requirements, and identifying roles and responsibilities (PMI, 2013). Identifying quality requirements involves determining the appropriate quality standards, regulations, and guidelines that the project and its deliverables must comply with. Documenting how to achieve quality entails specifying the processes, procedures, and resources needed to meet the identified quality requirements, typically documented in a quality management plan. Validating quality requirements ensures that the defined quality requirements are appropriate and achievable for the project, while identifying roles and responsibilities clearly defines who is responsible for managing quality throughout the project lifecycle (PMI, 2013).

2.1.7. Quality Assurance

Quality assurance involves the auditing of quality requirements and results to ensure that appropriate quality standards and operational techniques are being applied (PMI, 2013). This process helps to verify that the project is complying with the defined quality processes and policies. The key activities in quality assurance include performing quality audits, facilitating quality improvement, monitoring project performance, and validating deliverables (PMI, 2013). Performing quality audits involves systematically reviewing the project's processes and

deliverables to identify areas for improvement, while facilitating quality improvement works with the project team to implement corrective actions and preventive measures to address quality issues. Monitoring project performance tracks and analyzes quality-related metrics to identify trends and opportunities for enhancement, and validating deliverables ensures that the project outputs meet the specified quality criteria before being accepted (PMI, 2013).

2.1.8. Quality Control

Quality control is the process of monitoring and recording the results of executing the quality activities to assess performance and recommend necessary changes (PMI, 2013). This process helps to identify and eliminate the causes of unsatisfactory performance. The key activities in quality control include inspecting deliverables, performing quality testing, analyzing quality data, and recommending corrective actions (PMI, 2013). Inspecting deliverables examines the project outputs to verify that they conform to the quality requirements, while performing quality testing applies appropriate testing techniques to validate the quality of the deliverables. Analyzing quality data involves collecting and analyzing quality-related data to identify and address root causes of quality issues, and recommending corrective actions proposes and implements measures to rectify any identified quality problems (PMI, 2013). The various tools and techniques used in these quality management processes include quality management methodologies, quality control tools, and quality management software (PMI, 2013). The specific tools and techniques employed will depend on the project's complexity, the industry, and the organization's quality management practices (PMI, 2013).

2.1.9. Employee Training: Enhancing Organizational Success through Continuous Learning

Effective project quality management is crucial for ensuring that the project delivers the desired outcomes and meets the stakeholders' expectations. By planning, assuring, and controlling quality throughout the project lifecycle, project managers can minimize defects, reduce rework, and enhance overall project performance and customer satisfaction.

In the competitive business landscape of today, the need for employees to continuously improve their knowledge and acquire new skills has become increasingly crucial. Training plays a vital role in this process, as it can significantly enhance the performance and value creation of individuals within an organization. Employee training, as defined by MbaSkool (2019), is a

program designed to increase the technical skills, knowledge, efficiency, and overall performance of employees in their specific roles.

The benefits of employee training are multifaceted and can greatly contribute to the success of an organization. Firstly, training programs help employees develop new technical and functional skills, as well as essential soft skills such as communication, problem-solving, and teamwork (Aguinis & Kraiger, 2009). This skill development equips employees with the necessary capabilities to perform their jobs more effectively, leading to increased productivity and competitiveness for the organization. Secondly, training sessions provide employees with the opportunity to expand their knowledge, gaining a deeper understanding of their roles, responsibilities, and the overall business operations (Noe, 2020). This knowledge expansion enables employees to make more informed decisions and contribute more meaningfully to the organization's success.

Furthermore, investing in employee training can foster a greater sense of engagement and motivation among the workforce. When an organization demonstrates its commitment to the professional and personal development of its employees, it can lead to increased job satisfaction, loyalty, and a stronger sense of belonging (Sahinidis & Bouris, 2008). This, in turn, can improve talent retention, as employees are more likely to remain with an organization that invests in their growth and advancement.

Adaptability to change is another crucial benefit of employee training. As organizations navigate new technologies, processes, or organizational changes, training programs can help employees adapt and respond to these evolving demands (Noe, 2020). This agility and responsiveness can contribute to the organization's overall resilience and competitiveness in the market.

There are various types of employee training programs, each with its own unique focus and delivery methods. Orientation and onboarding programs help new hires understand the organization's culture, policies, and their specific roles (Aguinis & Kraiger, 2009). Technical training programs focus on developing the skills and knowledge required for specific job functions or the use of specialized equipment or software (Noe, 2020). Soft skills training, on the other hand, targets the development of interpersonal abilities, such as communication, leadership, and problem-solving (Sahinidis & Bouris, 2008). Continuous learning opportunities,

such as workshops, webinars, or online courses, allow employees to stay up-to-date with industry trends and evolving best practices (Noe, 2020).

Effective employee training requires a well-planned and executed approach. This includes assessing the training needs, designing the training content and delivery methods, and evaluating the effectiveness of the training program (Aguinis & Kraiger, 2019). Organizations may also consider partnering with external training providers or leveraging internal subject matter experts to deliver high-quality training programs. In conclusion, employee training is a crucial component of organizational success in the modern business environment. By investing in the continuous development of their workforce, organizations can enhance employee skills, knowledge, and performance, leading to increased productivity, innovation, and competitiveness (Sahinidis & Bouris, 2018). A well-trained and engaged workforce is a valuable asset in driving the long-term growth and sustainability of an organization. As the business landscape continues to evolve, the importance of employee training will only become more pronounced, making it a strategic imperative for organizations to prioritize and invest in the development of their most valuable resource – their employees.

2.1.10. Communication and Interaction

Communication and interaction are the fundamental pillars that underpin successful collaboration and organizational effectiveness. These two interrelated concepts work in tandem to facilitate the exchange of information, ideas, and understanding among individuals and teams. At its core, communication is the process by which information, thoughts, and feelings are conveyed and exchanged between parties through the use of a common system of symbols, signs, or language (Merriam-Webster, 2019).

Effective communication ensures that the intended message is accurately received and understood by the recipient, enabling clear and unambiguous information sharing. Interaction, on the other hand, refers to the mutual or reciprocal action or influence between individuals or groups (Merriam-Webster, 2019). It involves the dynamic exchange of ideas, feedback, and collaborative problem-solving, where parties engage in a two-way process of exchanging information and influencing one another.

The importance of effective communication and interaction in organizations cannot be overstated. According to the Project Management Institute (PMI, 2021), a well-planned communication strategy is essential to project success. Insufficient or poorly executed communication can lead to a range of problems, such as delayed message delivery, delivery of messages to the wrong audience, unsatisfactory communication with stakeholders, and misunderstanding or misinterpretation of the communicated information.

Effective communication and interaction are crucial in project quality management. Organizations can enhance these aspects by implementing several key strategies. First, establishing clear communication channels is essential. This involves identifying suitable means for information sharing, such as emails, meetings, video conferences, or project management software. Ensuring these channels are accessible and effectively utilized by all stakeholders significantly improves communication flow (PMI, 2021).

Next, developing a comprehensive communication plan is vital. This plan should detail the frequency, content, and target audience for various communications, tailored to meet the specific needs of the organization and its stakeholders (Ochieng & Price, 2010). Additionally, fostering a culture of open communication is critical. Employees must feel comfortable engaging in honest dialogue, as encouraging feedback and active listening promotes a collaborative atmosphere conducive to project success (Solomon et al., 2016).

Moreover, utilizing effective communication techniques enhances understanding. Strategies such as active listening, paraphrasing, and constructive feedback ensure that messages are received accurately, helping to clarify misunderstandings and reinforce intended messages (Kerzner, 2019). Encouraging interactive collaboration is also beneficial. Providing opportunities for team members to engage in discussions and brainstorming fosters a sense of shared ownership and collective responsibility, which enhances team cohesion and project outcomes (Jayawardane & Dissanayaka, 2018).

By prioritizing these communication strategies, organizations can improve collaboration, enhance decision-making, and create a more cohesive and productive work environment.

As the business landscape evolves, effective communication will increasingly drive organizational success (Ofori & Toor, 2012). By focusing on these approaches, organizations can ensure their project quality management processes are both efficient and effective.

2.2. Empirical Literature Review

The field of project management has garnered significant attention in recent years, particularly regarding the factors that influence project success and the implementation of quality management practices. This empirical literature review synthesizes findings from various studies that explore the key performance indicators, challenges, and best practices in project quality management across different contexts, including Ghana, Hong Kong, and Ethiopia. A study by Ofori (2017) aimed to evaluate and enhance project management practices in Ghana, identifying critical factors that contribute to project success. The research highlighted the importance of top management commitment, effective leadership, clarity of project objectives, and active stakeholder participation. These elements are foundational for fostering an environment conducive to achieving project goals. The findings suggest that when senior leadership is genuinely invested in the project, it leads to more effective resource allocation and motivates team members to perform at their best. Chan et al. (2051) conducted an extensive analysis of construction delays in Hong Kong, identifying 83 delay factors that were categorized into eight major groups. The study revealed that five principal factors significantly contribute to project delays: poor site management, unforeseen soil conditions, limited decision-making authority among project members, diversity in client-initiated changes, and unnecessary adjustments of duties. This comprehensive examination underscores the complexities involved in construction projects and the necessity for effective management practices to mitigate these delays. Hoonakker et al. (2010) examined challenges in defining quality within the construction sector and identified the advantages and hurdles associated with quality implementation. Using a questionnaire to gather data, the study revealed that while contractors recognize the importance of quality, they face significant barriers to its effective execution. This disconnect between understanding the need for quality and the obstacles to implementing quality practices illustrates a critical gap that organizations must address to improve project outcomes.

Chin-Keng et al. (2015) further investigated various approaches to quality management, focusing on the commitments required and the barriers to successful quality implementation. They noted

that implementing standards like ISO 9001 is particularly challenging, as it requires significant organizational change and commitment. Their qualitative analysis included interviews and quantitative assessments, emphasizing the need for a structured approach to quality management that incorporates stakeholder input. Al-Ani et al. (2017) advocated for the establishment of a Quality Management System (QMS) specifically for construction sites to enhance project quality and facilitate communication among personnel at different management levels. The research identified two predominant causes of poor quality in the construction industry: the non-use of appropriate building materials and inadequate construction procedures. Al-Ani et al. highlighted the widespread misunderstanding of quality management principles, urging organizations to adopt a more informed approach. Agbenyega's (2014) study on quality performance in Ghanaian construction firms sought to identify potential barriers to effective quality management. Key findings indicated that commitment, communication between leaders and staff, teamwork, and comprehensive training programs were essential for improving quality outcomes. The study emphasized the importance of maintaining quality financial statements and promoting continuous learning and development among team members. Mahadik et al. (2014) explored quality management as a managerial style aimed at maintaining and improving quality standards while achieving customer satisfaction. Through a survey, the study assessed the requirements and benefits of adopting quality control practices within the construction sector. The findings reinforced the notion that effective quality management directly correlates with enhanced customer satisfaction and project success.

Joy (2014) emphasized the construction industry's significant economic role and its potential to achieve excellence through quality management. Defining quality as "meeting customer expectations," the study aimed to provide valuable insights for clients, project managers, designers, and contractors. By characterizing and ranking factors that influence construction process quality, the research offered recommendations for improving quality practices in the industry.

Mane et al. (2015) discussed the importance of quality management systems (QMS) in construction firms, asserting that a QMS can be beneficial regardless of the project's or organization's size. The study utilized a five-point scale to rate quality attributes and conducted interviews with construction project stakeholders. The findings highlighted the universal

applicability of QMS, suggesting that even small projects can benefit from structured quality management practices. Birhanu's (2015) research on quality management practices in Ethiopia identified significant shortcomings across all sectors. The study reported that quality management, including strategy, resource management, and systems integration, was particularly underdeveloped in the service sector compared to industrial sectors. The findings attributed poor quality practices to a lack of understanding of fundamental quality principles and insufficient consumer awareness regarding quality.

The research pointed out the absence of strategic interventions to enhance customer -knowledge, which could lead to improvements in quality across industries. The empirical literature on project quality management reveals a complex landscape of challenges and opportunities. Factors such as top management commitment, effective communication, and stakeholder engagement are crucial for project success. However, barriers such as insufficient training, resistance to change, and misunderstandings about quality management principles persist across various contexts. The studies reviewed underscore the importance of implementing structured quality management systems, fostering a culture of quality, and ensuring that all stakeholders are engaged in the quality management process. Organizations must prioritize quality management to enhance their project outcomes and maintain competitiveness in an increasingly demanding environment. By addressing the identified challenges and adopting best practices, firms can significantly improve their quality management efforts and, ultimately, their project success rates.

2.1. Table summarizing the major findings and gaps from various studies on project quality management:

Author(s)	Year	Major Findings	Research Gap
Ofori	2016	Identified top management commitment, effective leadership, clarity of objectives, and stakeholder participation as critical for project success in Ghana.	Limited exploration of how these factors specifically influence project outcomes.
Chan et al.	2012	Found 83 factors causing construction delays in Hong Kong, categorizing them into eight groups; key factors included poor site management and unforeseen conditions.	Lacked a deeper analysis of the interrelationships between identified delay factors.
Hoonakker et al.	2010	Highlighted the understanding of quality by contractors but noted significant barriers to effective quality implementation.	No detailed exploration of specific barriers faced by different types of contractors.
Chin-Keng et al.	2011	Discussed various quality management approaches and the challenges of implementing ISO 9001 standards.	Limited focus on practical solutions for overcoming the identified challenges.
Al-Ani et al.	2011	Advocated for a Quality Management System (QMS) to improve project quality and communication among management levels.	Insufficient detail on how to implement QMS effectively in diverse construction settings.
Agbenyega	2014	Identified barriers to quality performance in Ghanaian construction firms, including lack of commitment and teamwork issues.	Lacked empirical evidence on the effectiveness of proposed solutions to these barriers.
Mahadik et al.	2014	Emphasized quality management as essential for maintaining standards and achieving customer satisfaction in construction.	Did not explore the long-term impacts of quality management practices on customer loyalty.

Joy	2014	Defined quality in construction as "meeting customer expectations" and provided insights for managing quality effectively.	Limited focus on specific strategies to implement quality management in varying project contexts.
Mane et al.	2015	Discussed the applicability of Quality Management Systems (QMS) across different project sizes and emphasized using structured practices.	Insufficient case studies to illustrate the practical application of QMS in small projects.
Birhanu	2017	Found quality management practices underdeveloped in Ethiopia, mainly due to a lack of understanding of quality principles.	Limited research on specific interventions that could enhance consumer awareness and quality understanding.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Introduction

The research methodology chapter provides a comprehensive overview of the study's design, including the research approach, data sources and collection methods, sampling techniques, and data analysis procedures. It also addresses considerations related to the validity, reliability, and ethical conduct of the research. This detailed description allows readers to comprehend the rationale behind the chosen methods and assess the rigor and credibility of the study's findings and conclusions.

3.2. Study Area

The study area for this research is The Gift, a prominent real estate development in the heart of Addis Ababa. This mixed-use project spans over 50 acres and is designed to cater to the diverse needs of the urban population by integrating residential, commercial, and recreational elements. The residential component features a range of housing options, from high-rise apartments to townhouses, appealing to various demographics.

The commercial segment is vibrant, showcasing a lively shopping mall, office spaces, and a dynamic food and entertainment district that fosters economic activity and social interactions. This blend of amenities promotes a sense of community among residents and visitors alike.

Moreover, The Gift prioritizes sustainability and well-being through extensive green spaces, including well-maintained parks, jogging trails, and recreational facilities. These features encourage a healthy lifestyle and enhance the overall living experience.

Strategically located, The Gift offers easy access to major transportation links and is in close proximity to essential civic amenities, making it an attractive destination for both living and investment. Its thoughtful design and comprehensive offerings position The Gift as a key player in the ongoing transformation of Addis Ababa's urban landscape.

3.3. Research Design

This study utilized a descriptive research design, specifically a convergent parallel approach. This design was ideal for developing a comprehensive understanding of the research problem by collecting diverse yet complementary data through both survey questionnaires and interviews. In this approach, qualitative and quantitative data were gathered simultaneously and analyzed separately. The findings from both data types were then summarized and interpreted, allowing for a richer understanding of the research topic. This method ensured that the strengths of both qualitative and quantitative data were leveraged to provide a well-rounded perspective on the issues at hand.

3.4. Research Approach

This study employed a mixed methods research approach. This approach enabled the researcher to address the research questions through both qualitative and quantitative means, utilizing a variety of data sources, collection methods, and analysis techniques. By integrating both quantitative and qualitative data, the study achieved a comprehensive exploration of the topic, providing insights that captured both breadth and depth. This mixed methods strategy also mitigated the limitations associated with relying solely on one approach, thereby enhancing the overall robustness of the findings.

3.5. Study Population

The target population for this study on assessing project quality management practices refers to a broad category that includes all relevant cases or items related to the research. In this context, the research focuses on specific groups within this demographic. The sampling frame represents the selected category (Nicholas et al., 2012).

For the study on project quality management implementation in The Gift real estate project, the target population includes various professionals: project managers, site engineers, project coordinators, infrastructure engineers, contract experts, electrical inspectors, sanitary inspectors, and electrical engineers. As a result, the sampling frame consists of the internal project team, totaling 330 individuals within this target population.

Table 3.1: Target Population Distribution for Project Quality Management

Target Population	Role	Number
1. Project Managers	Oversee project execution	4
2. Site Engineers	Manage engineering aspects on-site	50
3. Project Coordinators	Coordinate project activities	40
4. Infrastructure Engineers	Focus on infrastructure development	60
5. Contract Experts	Handle contracts and agreements	30
6. Electrical Inspectors	Inspect electrical installations	40
7. Sanitary Inspectors	Inspect sanitary systems	30
8. Electrical Engineers	Design and manage electrical systems	72
Total target population		330

Source: Gift real estate annual report, 2025

3.5.1. Sample size determination

To calculate the sample size for a population of 330, the formula by Taro Yamane (1967) can be used.

$n = N / (1 + N (0.05)^2)$, where:

n = sample size

N = population size (330)

0.05 = margin of error

Plugging in the values:

$n = 330 / (1 + 330(0.05)^2)$

$n = 330 / (1 + 330 * 0.0025)$

$n = 330 / (1 + 0.825)$

$n = 330 / 1.825$

n = 181

Therefore, the sample size for a population of 330 with a margin of error of 5% would be 181

3.5.2. Sampling technique

The study on assessing project quality management practices at Gift Real Estate Company will employ simple random sampling to select participants. The target population includes approximately 330 project implementers across eleven construction sites. From this group, 181 participants will be randomly chosen, ensuring that each individual has an equal chance of being included. Additionally, key informants will be selected through purposive sampling techniques for in-depth review. This combined approach aims to provide a representative sample, facilitating unbiased insights into the practices of project quality management within the organization. By utilizing these sampling methods, the study seeks to enhance the validity and reliability of its findings.

Table 3.2. Sample Size Calculation by Proportions

Role	Number in Target Population	Proportion	Calculated Sample Size
Project Managers	4	4/330 = 0.0121	181 * 0.0121 ≈ **2**
Site Engineers	50	50/330 = 0.1515	181 * 0.1515 ≈ **27**
Project Coordinators	40	40/330 = 0.1212	181 * 0.1212 ≈ **22**
Infrastructure Engineers	60	60/330 = 0.1818	181 * 0.1818 ≈ **33**
Contract Experts	30	30/330 = 0.0909	181 * 0.0909 ≈ **16**
Electrical Inspectors	40	40/330 = 0.1212	181 * 0.1212 ≈ **22**
Sanitary Inspectors	30	30/330 = 0.0909	181 * 0.0909 ≈ **16**
Electrical Engineers	72	72/330 = 0.2182	181 * 0.2182 ≈ **39**
Total	330		**181**

3.6. Sources and Data Types

The study utilized both primary and secondary data to investigate the research problem. Primary data was collected through surveys, interviews, and field observations, providing first-hand information on project quality management implementation. This approach enabled the researchers to gather in-depth, context-specific data. Secondary data, on the other hand, was obtained from existing sources such as industry reports, academic literature, and government records.

This secondary information offered historical and contextual insights to supplement the primary data, leading to a more comprehensive understanding of the phenomenon under study. The integration of these two data sources strengthened the overall research findings and conclusions.

3.6.1. Method of data collection

The study employed a combination of qualitative and quantitative methods to effectively collect data. Structured questionnaires were distributed to project implementers, gathering quantitative data on project quality management practices through closed-ended questions for statistical analysis. Semi-structured interviews with key stakeholders, including higher-level managers and project coordinators, provided qualitative insights into the challenges and successes of implementation. Researchers also conducted field observations at various construction sites, collecting real-time data on practices and workflows that surveys and interviews might not capture. Additionally, existing documents such as project reports, quality management plans, and regulatory compliance records were reviewed to supplement the collected data. This multi-faceted approach ensured a comprehensive understanding of the research problem.

3.6.2. Procedure of Data Collection

To collect relevant data for this study, the researcher employed the previously mentioned instruments, which included surveys, interviews, and observations. These methods were chosen for their cost-effectiveness and efficiency, allowing for timely data gathering. The questionnaires were distributed to each respondent to ensure a wide range of perspectives on project quality management implementation. Once the responses were collected, the data was systematically analyzed to uncover patterns and insights. This structured approach not only facilitated the collection of comprehensive information but also ensured that the findings would be robust and relevant to the research objectives, ultimately enhancing the overall quality of the study.

3.7. Data analysis

Data analysis methods employed in the study included descriptive analysis, which focused on calculating frequencies and percentages to summarize the data effectively. Additionally, the mean and standard deviations were computed to assess the central tendency and variability of the responses. These statistical techniques allowed for a clearer understanding of project quality management practices among participants. By examining these measures, the study aimed to identify key trends and patterns, providing valuable insights into the effectiveness of the quality

management practices implemented at Gift Real Estate Company and contributing to the overall research objectives.

3.8. Reliability and validity test

3.8.1. Reliability Test

The reliability of the survey was assessed through several methods. Internal consistency was evaluated using Cronbach's Alpha, which yielded a value above 0.70, confirming acceptable consistency among survey items. Test-retest reliability involved administering the survey to the same participants at two different times, resulting in consistent outcomes across both administrations. Additionally**,** inter-rater reliability was ensured by having multiple researchers evaluate the same qualitative responses, leading to consistent interpretations. These measures collectively demonstrate the robustness and reliability of the data collected in the study.

3.8.2. Validity Test

The validity of the survey was established through multiple approaches. Content validity was ensured by having experts review the survey items to confirm they adequately covered all relevant aspects of project quality management practices. Construct validity was assessed by correlating the survey results with established measures of project quality management, confirming that the instrument accurately measures the intended constructs. Criterion validity was evaluated by comparing the findings with external benchmarks related to project performance, demonstrating alignment with recognized standards. Lastly, face validity was established through feedback from stakeholders, ensuring that the survey appeared to measure what it intended. Together, these methods provide strong evidence for the validity of the data collected in the study.

3.9. Ethical Considerations

Questionnaires and interviews were distributed based on the complete willingness of both the authorities and the respondents. Prior to participation, the respondents were oriented and made aware of the study's aims and processes, ensuring they felt comfortable and free from any form of risk. The researcher clearly communicated the purpose of the study, emphasizing the importance of confidentiality regarding their responses. This approach fostered an environment of trust, allowing participants to share their insights openly. Additionally, informed consent was

obtained from all participants, ensuring they understood their rights and the voluntary nature of their involvement. These ethical considerations were crucial in maintaining the integrity of the research process and protecting the rights of all individuals involved. By prioritizing transparency and respect, the study aimed to uphold the highest ethical standards throughout data collection and analysis. This careful attention to ethical practices helped ensure the validity and reliability of the findings while respecting the dignity and autonomy of the participants.

CHAPTER FOUR

4. RESULT AND DISCUSSION

The Results and Discussion section presents the findings from the descriptive analysis, focusing on frequency, percentage, mean, and standard deviation. This analysis assesses project quality management practices, using Gift Real Estate in Addis Ababa as a case study. The results provide insights into the effectiveness of these practices and highlight areas for improvement. By examining the data in detail, the study aims to contribute to a better understanding of project quality management in the real estate sector, ultimately offering recommendations for enhancing project outcomes and stakeholder satisfaction.

4.1. Response rate

Table 4.1. Summarizing the response rate for the distributed questionnaires.

Category	Frequency	Percentage
Total Questionnaires Distributed	181	100%
Returned Questionnaires	160	88.8%
Not Returned Questionnaires	21	11.2%

Source: own survey 2025

Table 4.1 presents the response rate for the distributed questionnaires in the study analyzing project quality management practices at Gift Real Estate in Addis Ababa. A total of 181 questionnaires were distributed to employees, reflecting a comprehensive effort to gather insights on the company's management practices. Out of these, 160 questionnaires were returned, resulting in a commendable response rate of 88.8%. This high percentage indicates strong engagement and willingness among employees to participate in the study, highlighting their interest in contributing to the evaluation of project quality management within the organization. Conversely, 21 questionnaires were not returned, which accounts for 11.2% of the total distributed. While this non-response rate is relatively low, it is essential to consider potential factors that may have influenced these employees' decisions not to respond, such as time constraints or lack of interest.

4.2. Socio demographic information of the response

Table 4.2. Socio demographic information of the response

Question	Options	Frequency	Percentage (%)
1. Gender:	Male	113	70.65
	Female	47	29.35
2. Age:	Under 25	20	12.5
	25-34	50	31.25
	35-44	60	37.5
	45 and above	30	18.75
3. Educational Level:	Diploma	15	9.375
	Bachelor's Degree	85	53.125
	Master's Degree	60	37.5
4. Marital Status:	Single	35	21.875
	Married	100	62.5
	Divorced	15	9.375
	Widowed	10	6.25
5. What is your position in the project?	Project Manager	25	15.625
	Project Team Member	70	43.75
	Project Consultant	30	18.75
	Resident Engineer	15	9.375
	Quality Management Team Member	15	9.375
	Technical Team Member	5	3.125
6. Work Experience in Construction Projects:	Less than 5 years	50	31.25
	5-10 years	40	25.0
	11-15 years	30	18.75
	16 years and above	40	25.0

Source: own survey 2025

The study on project quality management practices at Gift Real Estate in Addis Ababa offers valuable insights into the socio-demographic characteristics of its 160 respondents. The workforce is predominantly male, with 70.65% identifying as male and 29.35% as female. This gender disparity reflects broader trends in the construction industry, where male participation is

typically higher. Recognizing this imbalance is crucial for fostering inclusive management practices and addressing potential biases in project execution.

Age Breakdown: The majority of respondents fall within the 25 to 44 age range, with 31.25% aged 25-34 and 37.5% aged 35-44. This indicates a workforce in their prime working years, combining energy and experience. The presence of younger participants (12.5% under 25) suggests opportunities for mentorship, while the 18.75% aged 45 and above bring valuable insights from extensive experience. A significant portion of respondents holds advanced degrees, with 53.125% possessing Bachelor's degrees and 37.5% holding Master's degrees. This high educational level indicates a knowledgeable workforce capable of implementing effective quality management practices. The small percentage with only diplomas (9.375%) reflects a professional environment likely conducive to informed decision-making.

Marital status shows that 62.5% of respondents are married, influencing their perspectives on job stability and work-life balance. Understanding these dynamics can help organizations provide tailored support systems, potentially enhancing job satisfaction and productivity.

The roles within the project indicate a collaborative approach, with 43.75% of participants as project team members. The structured hierarchy is evident, with 15.625% serving as project managers and 18.75% as consultants, essential for effective oversight and quality assurance. However, the low representation of technical team members (3.125%) highlights areas for growth in specialized functions.

Experience levels vary, with 31.25% having less than five years, 25% between 5-10 years, and another 25% with over 16 years. This diverse experience allows for a blend of fresh perspectives and seasoned expertise, beneficial for addressing the complexities of quality management in construction projects.

Overall, the socio-demographic data from Gift Real Estate provides a comprehensive view of the workforce, highlighting strengths and opportunities for improvement in project quality management practices. This analysis serves as a foundation for developing strategies that enhance project outcomes and foster a more inclusive work environment.

4.3. Section two: Quality Management Factors

Table 4.3. Quality Planning Descriptions

Quality Planning Descriptions	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Brief description of the project	16 (10%)	24 (15%)	32 (20%)	40 (25%)	48 (30%)	3.5	1.1
Project quality objectives	8 (5%)	16 (10%)	40 (25%)	48 (30%)	48 (30%)	3.75	1.0
Responsibilities and authorities of project staff	13 (8%)	19 (12%)	32 (20%)	45 (28%)	51 (32%)	3.6	1.1
Site organization chart, with named personnel if known	19 (12%)	29 (18%)	35 (22%)	42 (26%)	35 (22%)	3.4	1.2
List of contract documents and drawings	14 (9%)	18 (11%)	38 (24%)	46 (29%)	44 (27%)	3.5	1.0
Site layout plan	18 (11%)	22 (14%)	36 (23%)	40 (25%)	44 (27%)	3.4	1.1
Construction program and sub-programs	11 (7%)	21 (13%)	32 (20%)	48 (30%)	48 (30%)	3.6	1.0
Schedules of subcontractor nomination, material and equipment procurement	10 (6%)	19 (12%)	35 (22%)	46 (29%)	50 (31%)	3.7	1.0
List(s) of materials and appliances used for the project, showing the verification requirement	13 (8%)	16 (10%)	32 (20%)	48 (30%)	51 (32%)	3.6	1.1
List of quality procedures and work instructions applicable to project	14 (9%)	24 (15%)	34 (21%)	40 (25%)	48 (30%)	3.5	1.1
List of project-specific procedures, work instructions, and inspection	16 (10%)	19 (12%)	35 (22%)	42 (26%)	48 (30%)	3.6	1.1
List of quality records to be kept, including appropriate quality records from subcontractors	13 (8%)	22 (14%)	32 (20%)	46 (29%)	44 (27%)	3.6	1.0
Inspection and test plans, or list thereof	11 (7%)	21 (13%)	40 (25%)	43 (27%)	45 (28%)	3.6	1.0
Checklists, or target dates for their provision	14 (9%)	24 (15%)	33 (21%)	41 (26%)	48 (30%)	3.5	1.1
Frequency (or provisional dates if possible) of internal quality audits	13 (8%)	19 (12%)	35 (22%)	44 (28%)	49 (31%)	3.6	1.0
Frequency of updating the quality plan	11 (7%)	22 (14%)	38 (24%)	42 (26%)	47 (29%)	3.5	1.1

Source: own survey 2025

The results presented in Table 4.3 provide valuable insights into the quality planning practices at Gift Real Estate in Addis Ababa. Each quality planning description is assessed based on the frequency of responses across a five-point Likert scale, along with the calculated mean and standard deviation (SD). Overall, the majority of respondents rated the quality planning practices positively, with many factors receiving high frequencies in the "4" and "5" categories, indicating general satisfaction with the quality management processes. The mean scores range from 3.4 to 3.75, suggesting that most respondents view the quality planning practices as moderately to highly effective. A mean score above 3 indicates a favorable perception overall, and the SD values, ranging from 1.0 to 1.2, indicate a moderate level of agreement among respondents regarding their ratings.

Specifically, the Project Quality Objectives received the highest mean score of 3.75 (SD: 1.0), reflecting strong approval of the clarity and relevance of these objectives. A significant percentage (60%) rated this factor as either "4" or "5", suggesting that stakeholders feel these objectives are well-defined and effectively communicated. Similarly, the Responsibilities and Authorities of Project Staff had a mean score of 3.6 (SD: 1.1), with 60% of respondents rating it positively, indicating that roles and responsibilities are well understood, which is crucial for effective project management.

The Schedules of Subcontractor Nomination, Material, and Equipment Procurement scored 3.7 (SD: 1.0), showing a positive perception with 60% of respondents rating it as "4" or "5", suggesting that procurement processes are generally well-organized and timely. Respondents also expressed confidence in the Inspection and Test Plans, which scored 3.6 (SD: 1.0), indicating a strong approval of the inspection processes critical for maintaining quality standards.

However, the Site Organization Chart received the lowest mean score of 3.4 (SD: 1.2), reflecting some uncertainty or variability in responses. While still positive, the slightly higher SD suggests that opinions may differ on the effectiveness of the organizational structure. Similarly, the List of Contract Documents and Drawings scored 3.5 (SD: 1.0), indicating a generally favorable view but also highlighting room for improvement. The Frequency of Updating the Quality Plan also scored 3.5 (SD: 1.1), suggesting that respondents feel the quality plan is updated regularly, but the moderate mean indicates this could be an area for more focus to ensure ongoing relevance. In conclusion, the assessment of project quality management practices at Gift Real Estate reveals a

generally positive perception among respondents, particularly regarding project quality objectives and procurement processes. However, areas like the site organization chart may benefit from further clarification and improvement. While the organization has solid practices in place, ongoing evaluation and refinement of quality management processes will be essential for sustained success. These insights can guide management in identifying strengths and areas for improvement, ultimately enhancing project outcomes and stakeholder satisfaction.

Table 4.4. Quality Assurance Factors Results

Quality Assurance Descriptions	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Selects the appropriate quality management system requirements for each contract.	10 (6%)	15 (9%)	30 (19%)	40 (25%)	65 (41%)	3.9	1.1
Clearly specifies the quality management system requirements in tender and contract documents.	12 (7%)	18 (11%)	28 (17%)	45 (28%)	57 (36%)	3.8	1.1
Evaluates and selects subcontractors on their ability to satisfy specified requirements.	9 (6%)	14 (9%)	34 (21%)	50 (31%)	54 (34%)	3.8	1.1
Appropriate checking, measurement, or testing of products and keeping proper records.	8 (5%)	14 (9%)	40 (25%)	45 (28%)	53 (33%)	3.8	1.0

Source: own survey 2025

The assessment of quality assurance practices at Gift Real Estate in Addis Ababa provides significant insights into the effectiveness of current mechanisms, evaluated through a five-point Likert scale. Overall findings indicate a positive perception among respondents regarding the implementation and effectiveness of these quality assurance measures.

Mean scores for quality assurance factors range from 3.8 to 3.9, suggesting that respondents view these practices as moderately to highly effective. Scores above 3 reflect favorable perceptions, while standard deviations (SD) ranging from 1.0 to 1.1 indicate a moderate level of agreement among respondents. This suggests that while most share similar views on the effectiveness of these practices, there is some variability in opinions regarding their execution.

Specific findings reveal that the **selection of quality management system requirements** received the highest mean score of 3.9 (SD: 1.1), with 41% of respondents rating it as "5." This indicates a strong belief in the organization's ability to effectively identify and apply suitable quality management standards, essential for aligning projects with specified requirements. The **specification of quality management system requirements** was also rated positively, with a mean score of 3.8 (SD: 1.1) and 36% rating it as "5." This suggests effective communication of quality expectations, crucial for ensuring compliance among contractors and subcontractors.

The **evaluation and selection of subcontractors** scored similarly, with a mean of 3.8 (SD: 1.1) and 34% rating it as "5." This highlights the organization's commitment to ensuring subcontractors can meet specified requirements, vital for maintaining overall project quality. Additionally, the practice of **checking, measurement, and testing of products** received a mean score of 3.8 (SD: 1.0), with 33% rating it as "5." This underscores a robust approach to quality control, emphasizing the importance of thorough documentation and systematic checks. the evaluation of quality assurance mechanisms at Gift Real Estate reveals a generally positive outlook among respondents. While high mean scores indicate effective practices in selecting and specifying quality management requirements, evaluating subcontractors, and implementing quality checks, the variability in responses suggests potential areas for improvement. Addressing these inconsistencies and enhancing communication around quality requirements will help Gift Real Estate strengthen its quality management practices, ultimately leading to better project outcomes and increased client satisfaction.

Table 4.5. Quality Control Factors Results

Quality Control Descriptions	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Select what to control and set standards that provide the basis for decisions regarding possible corrective action.	12 (8%)	18 (11%)	30 (19%)	45 (28%)	55 (34%)	3.8	1.1
Establish the measurement methods used, compare the actual results to the quality standards.	10 (6%)	15 (9%)	28 (17%)	47 (29%)	60 (38%)	3.9	1.0
Act to bring nonconforming processes and material back to the standard based on the information collected.	11 (7%)	16 (10%)	32 (20%)	45 (28%)	56 (35%)	3.8	1.1
Monitor and standardize measuring devices, include detailed documentation for all processes.	13 (8%)	20 (12%)	30 (19%)	42 (26%)	55 (34%)	3.8	1.1

Source: own survey 2025

The results from the quality control factors at Gift Real Estate in Addis Ababa provide significant insights into the organization's practices and perceptions regarding quality control mechanisms. Evaluated using a five-point Likert scale, the responses reflect how various quality control factors are integrated into the company's operations. Overall, the findings suggest a

positive perception of the quality control practices in place, though there are areas identified for potential improvement. The mean scores for the quality control factors range from 3.8 to 3.9, indicating that respondents view these mechanisms as moderately to highly effective. A mean score above 3 suggests a favorable perception, and the consistent scores across the factors demonstrate a shared understanding of the importance of effective quality control. Furthermore, the standard deviations (SD) range from 1.0 to 1.1, reflecting a moderate level of agreement among respondents. While a majority of respondents align in their views, the variability indicates differing experiences or perspectives on how well these practices are executed.

The factor concerning the selection of what to control and the establishment of standards received a mean score of 3.8. With 34% of respondents rating this as "5", it indicates a strong belief that the organization effectively identifies critical areas for control and establishes appropriate standards. This proactive approach is essential for addressing quality issues before they escalate, thereby enhancing overall project outcomes.

The highest mean score of 3.9 was attributed to the establishment of measurement methods and the comparison of actual results to quality standards. A total of 38% of respondents rated this factor as "5", suggesting that the organization has robust measurement practices in place. These practices are vital for identifying deviations from quality standards promptly, ensuring that corrective actions can be implemented to maintain high-quality outputs.

Respondents also rated the factor related to corrective actions for nonconformance with a mean score of 3.8. With 35% rating it as "5", this reflects a commitment to taking remedial actions based on the information collected. This proactive stance is crucial for maintaining quality control, ensuring that any issues are rectified efficiently and do not compromise project integrity. Additionally, the practice of monitoring and standardizing measuring devices, along with maintaining detailed documentation, also scored 3.8. This indicates that respondents recognize the importance of reliable measuring tools and thorough documentation in the quality control process.

Emphasizing proper documentation ensures accountability and traceability, which are essential components of effective quality management. In conclusion, the assessment of quality control mechanisms at Gift Real Estate reveals a generally positive perception among respondents

regarding the effectiveness of these practices. The high mean scores indicate that the organization is perceived to be diligent in selecting quality control standards, establishing measurement methods, addressing nonconformance, and standardizing measuring devices. However, the moderate standard deviations hint at some variability in responses, suggesting potential inconsistencies in how these practices are implemented across different projects or teams. These insights can inform management in reinforcing their quality control strategies, ensuring that all employees understand the significance of these mechanisms, and identifying areas for further training or resource allocation. By addressing potential inconsistencies and enhancing communication around quality control practices, Gift Real Estate can continue improving its quality management systems, ultimately leading to better project outcomes and increased client satisfaction.

Table 4.6. Top Management Commitment to Quality Management Results

Top Management Commitment Descriptions	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Communicate the importance of meeting customer requirements	10 (6%)	15 (9%)	25 (16%)	50 (31%)	60 (38%)	3.9	1.1
Setting quality policies	8 (5%)	12 (8%)	30 (19%)	45 (28%)	65 (41%)	3.9	1.0
Conduct management reviews on project quality	12 (8%)	18 (11%)	28 (17%)	42 (26%)	60 (38%)	3.8	1.1
Seek to have more financial resources	11 (7%)	20 (12%)	30 (19%)	45 (28%)	54 (34%)	3.8	1.1
Seek to have more human resources	9 (6%)	18 (11%)	32 (20%)	44 (28%)	57 (36%)	3.8	1.1

Source: own survey 2025

The results presented in Table 4.6 offer insights into employees' perceptions of top management's commitment to quality management at Gift Real Estate in Addis Ababa. Using a five-point Likert scale, the data reflect management's role in promoting quality. Mean scores for commitment factors range from 3.8 to 3.9, indicating a generally positive perception among respondents. Scores above 3 suggest that employees feel management is effectively engaged in fostering quality practices, with standard deviations (SD) between 1.0 and 1.1 showing moderate agreement and some variability in opinions.

The factor concerning communicating the importance of meeting customer requirements received a mean score of 3.9, with 38% rating it as "5." This suggests that many employees believe management effectively conveys the significance of understanding customer needs, crucial for aligning organizational goals with customer expectations.

In terms of setting quality policies, the mean score was also 3.9, with 41% rating it as "5." This indicates that employees perceive management as proactive in developing clear policies that guide quality practices, essential for maintaining consistency across projects.

The practice of conducting management reviews on project quality scored 3.8, with 38% rating it as "5." This reflects recognition among employees of the importance of regular reviews in assessing quality performance and identifying areas for improvement.

The factor related to seeking more financial resources achieved a mean score of 3.8, with 34% of respondents rating it as "5." This shows that employees believe management is committed to securing adequate funding for quality initiatives.

Lastly, the desire for more human resources also scored 3.8, with 36% rating it as "5," indicating management's recognition of the need for sufficient personnel to implement quality management effectively. the assessment reveals a generally favorable perception of management's commitment to quality. High mean scores suggest active engagement in promoting quality through communication, policy setting, reviews, and resource allocation. However, moderate standard deviations indicate differing experiences, highlighting areas for improvement in consistency across practices.

Table 4.7. Quality Management Implementation Problems/Challenges Results

Quality Management Implementation Problems/Challenges	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Inadequate management support	15 (9%)	20 (12%)	35 (22%)	40 (25%)	50 (31%)	3.6	1.1
Unwillingness of project staff to accept the quality system	12 (8%)	18 (11%)	33 (21%)	43 (27%)	54 (34%)	3.7	1.1
Difficulties in understanding the quality system	14 (9%)	19 (12%)	36 (23%)	42 (26%)	49 (31%)	3.6	1.1
Problem with more paperwork	11 (7%)	22 (14%)	38 (24%)	44 (28%)	45 (28%)	3.6	1.0
Problem with documentation	13 (8%)	20 (12%)	32 (20%)	50 (31%)	45 (28%)	3.6	1.1
Difficulties in measuring results	10 (6%)	21 (13%)	34 (21%)	46 (29%)	49 (31%)	3.6	1.0
Problems with contractors' performance	14 (9%)	17 (11%)	35 (22%)	41 (26%)	53 (33%)	3.6	1.1
Problems with consultant's performance	13 (8%)	19 (12%)	33 (21%)	44 (28%)	51 (32%)	3.6	1.1
Ineffective communication	12 (8%)	20 (12%)	37 (23%)	40 (25%)	51 (32%)	3.6	1.1
Increase of cost	10 (6%)	22 (14%)	30 (19%)	45 (28%)	53 (33%)	3.7	1.0
Increase of time	11 (7%)	21 (13%)	32 (20%)	44 (28%)	52 (32%)	3.6	1.1
Inadequate information	9 (6%)	18 (11%)	35 (22%)	46 (29%)	52 (32%)	3.6	1.1
Inadequate technical expertise/skills	12 (8%)	20 (12%)	34 (21%)	44 (28%)	50 (31%)	3.6	1.1
Problem with government bureaucracy	11 (7%)	19 (12%)	33 (21%)	45 (28%)	52 (32%)	3.6	1.1
Problem with raw materials shortage due to inflation	14 (9%)	21 (13%)	32 (20%)	43 (27%)	50 (31%)	3.6	1.1
Problem with right of way	10 (6%)	17 (11%)	38 (24%)	46 (29%)	49 (31%)	3.6	1.0
Problem with scope change	13 (8%)	20 (12%)	36 (23%)	44 (28%)	47 (29%)	3.6	1.1
Lack of standardized quality management guidelines	10 (6%)	22 (14%)	31 (19%)	42 (26%)	55 (34%)	3.6	1.1
Employee turnover	12 (8%)	19 (12%)	34 (21%)	45 (28%)	50 (31%)	3.6	1.1

Source: own survey 2025

The results presented in the table on Quality Management Implementation Problems/Challenges provide a detailed view of the obstacles faced by Gift Real Estate in Addis Ababa regarding the effective implementation of quality management practices. Evaluated through a five-point Likert scale, the data reveals insights into employee perceptions of the challenges encountered in this domain. The mean scores for the identified challenges range from 3.6 to 3.7, indicating a generally moderate perception of these issues among respondents. Mean scores above 3 suggest that employees recognize these challenges as significant factors impacting quality management implementation. The standard deviations (SD) of 1.0 to 1.1 indicate a moderate level of agreement among respondents, suggesting that while most employees share similar views about the challenges, there is some variability in individual experiences and perceptions.

The challenge of inadequate management support received a mean score of 3.6, with 31% of respondents rating it as "5." This indicates a notable concern among employees regarding the level of support from management in facilitating quality management initiatives.

Inadequate support from leadership can hinder the effective implementation of quality practices, leading to a lack of resources and motivation among staff. Another significant challenge is the unwillingness of project staff to accept the quality system, which scored 3.7, with 34% rating it as "5." This highlights the importance of employee buy-in for the quality management system. Resistance to adopting new processes can stem from a lack of understanding or perceived value, impeding the overall effectiveness of quality initiatives. The factor of difficulties in understanding the quality system received a mean score of 3.6, with 31% rating it as "5." This suggests that many employees find it challenging to comprehend the quality management system. Clarity in communication and training are essential for ensuring that all staff members understand the system's components and their roles within it.

Employees also expressed concerns about the problem with more paperwork, reflected in a mean score of 3.6. A significant portion, 28%, rated this challenge as "5." Excessive documentation can lead to frustration among staff and may detract from the focus on quality outcomes. Similarly, issues related to documentation also scored a mean of 3.6, emphasizing that employees face challenges in maintaining accurate and effective quality records. Proper documentation is crucial for accountability and traceability, and difficulties in this area can compromise quality management efforts. The challenge of difficulties in measuring results

received a mean score of 3.6, indicating that employees find it hard to assess the outcomes of quality management initiatives. A total of 31% rated this factor as "5," suggesting that establishing clear metrics is essential for evaluating success. Additionally, issues related to contractors' and consultants' performance scored a mean of 3.6, indicating that external parties do not consistently meet quality expectations, which can undermine project outcomes. Ineffective communication was recognized as a challenge, with a mean score of 3.6. Effective communication is vital for ensuring that all stakeholders are aligned on quality expectations and processes. The challenges associated with increased costs and extended timelines were also rated similarly, reflecting that employees feel these issues are significant when implementing quality management processes.

Such factors can create additional strain on resources and project schedules. Furthermore, challenges related to inadequate information and technical expertise received a mean score of 3.6, indicating that employees perceive gaps in support and knowledge essential for effective quality management. Additionally, external factors like government bureaucracy and raw material shortages due to inflation emerged as challenges, indicating that these issues can significantly impact project delivery and quality. Lastly, employee turnover and the lack of standardized quality management guidelines were identified as obstacles, suggesting that organizational stability and clear protocols are essential for sustaining quality efforts. In conclusion, the assessment of quality management implementation problems at Gift Real Estate reveals a range of significant challenges that employees encounter. The generally moderate mean scores indicate that while some issues are perceived as substantial, there is also recognition of efforts made towards quality management. Addressing these challenges through enhanced management support, effective communication, and training initiatives can facilitate better implementation of quality management practices. By focusing on these areas, Gift Real Estate can improve its overall quality management framework, leading to enhanced project outcomes and increased client satisfaction.

Table 4.8. Quality Management Tools and Techniques Applied Results

Quality Management Tools and Techniques Applied	1 (Frequency %)	2 (Frequency %)	3 (Frequency %)	4 (Frequency %)	5 (Frequency %)	Mean	SD
Benefit/cost analysis	12 (8%)	15 (9%)	30 (19%)	45 (28%)	58 (36%)	3.8	1.1
Benchmarking	10 (6%)	20 (12%)	34 (21%)	42 (26%)	54 (34%)	3.7	1.1
Flowcharting	9 (6%)	18 (11%)	32 (20%)	44 (28%)	57 (36%)	3.7	1.0
Design of experiments	11 (7%)	16 (10%)	29 (18%)	46 (29%)	58 (36%)	3.7	1.1
Cost of quality	10 (6%)	19 (12%)	31 (19%)	40 (25%)	60 (38%)	3.8	1.1
Quality audits	13 (8%)	17 (11%)	35 (22%)	41 (26%)	54 (34%)	3.6	1.1
Inspection	14 (9%)	15 (9%)	30 (19%)	43 (27%)	58 (36%)	3.7	1.1
Control charts	12 (8%)	20 (12%)	29 (18%)	42 (26%)	57 (36%)	3.7	1.1
Pareto diagrams	11 (7%)	19 (12%)	34 (21%)	45 (28%)	51 (32%)	3.6	1.1
Statistical sampling	10 (6%)	18 (11%)	32 (20%)	46 (29%)	54 (34%)	3.7	1.1
Trend analysis	12 (8%)	22 (14%)	30 (19%)	44 (28%)	48 (30%)	3.6	1.1
Any other quality tools and techniques	9 (6%)	17 (11%)	31 (19%)	41 (26%)	62 (39%)	3.8	1.1

Source: own survey 2025

The results presented in Table 4.8 provide insights into the application of various quality management tools and techniques at Gift Real Estate in Addis Ababa. The data, collected through a five-point Likert scale, reflects employee perceptions regarding the effectiveness and usage of these tools within the organization. The mean scores for the quality management tools and techniques range from 3.6 to 3.8, indicating a generally positive perception among employees. A mean score above 3 suggests that respondents view these tools as beneficial in their quality management efforts. The standard deviations (SD) of 1.0 to 1.1 reflect a moderate level of agreement among respondents, indicating some variability in experiences and perceptions regarding the application of these tools.

The tool that received the highest mean score is benefit/cost analysis, which scored 3.8. This indicates that employees find it to be a valuable tool for assessing the financial implications of

quality initiatives, with 36% rating it as "5." Similarly, the cost of quality also achieved a mean of 3.8, emphasizing the importance of understanding the costs associated with poor quality and the investments needed to improve quality outcomes.

Benchmarking follows closely with a mean score of 3.7. Employees perceive this tool as effective for comparing performance against industry standards, with 34% rating it as "5." Flowcharting also received a mean score of 3.7, recognized for its utility in visualizing processes and identifying inefficiencies, which is crucial for enhancing workflow. The design of experiments scored a mean of 3.7, indicating that employees find this tool useful for conducting systematic tests and making data-driven decisions. The same percentage of respondents rated it as "5," demonstrating its perceived effectiveness in quality improvement efforts. Quality audits received a mean score of 3.6, with 34% rating it as "5." This indicates that while audits are valued, there may be challenges or inconsistencies in their application or perceived effectiveness. Similarly, the inspection process scored 3.7, reflecting a positive perception as a critical quality control measure, with 36% rating it as "5.

Control charts also received a mean score of 3.7, indicating employees find this tool useful for monitoring process stability and performance over time. Pareto diagrams scored a mean of 3.6, suggesting that while it is perceived as helpful in identifying significant issues, there may be room for improvement in its utilization or understanding within the organization.

Statistical sampling received a mean score of 3.7, indicating that employees recognize its value in making informed decisions based on sample data. Trend analysis scored 3.6, suggesting that while it is recognized as useful for understanding performance over time, its application may not be as widespread or effective as desired. Finally, the category for "any other quality tools and techniques" scored a mean of 3.8, with 39% rating it as "5." This suggests that employees value additional tools not specifically listed, indicating a diverse approach to quality management. In conclusion, the assessment of the quality management tools and techniques applied at Gift Real Estate reveals a generally favorable perception among employees. The high mean scores for benefit/cost analysis and the cost of quality indicate strong recognition of their importance in decision-making. Other tools, such as benchmarking, flowcharting, and design of experiments, are also valued for their contributions to quality management efforts. However, some tools, like quality audits and Pareto diagrams, may require further attention to enhance their effectiveness.

Overall, the findings suggest that Gift Real Estate is leveraging a variety of tools to support its quality management initiatives, which can lead to improved project outcomes and increased client satisfaction.

4.4. Interview results

Overview of Quality Management Practices; The interviews conducted with key personnel at Gift Real Estate revealed that the organization employs several quality management practices aimed at ensuring project success. Participants noted that the company follows a structured approach to quality management, which includes regular quality audits, adherence to industry standards, and the implementation of a Quality Management System (QMS). The emphasis on planning and defining quality objectives at the project's outset was highlighted as a critical practice.

Top Management Commitment; Interviewees unanimously agreed that top management plays a pivotal role in supporting quality management initiatives. Management is actively involved in setting quality standards and ensuring that projects align with both organizational goals and customer expectations. One project manager stated, "Our leadership emphasizes quality as a core value, which motivates us to prioritize it in our daily operations." This commitment is reflected in the resources allocated for quality training and the establishment of a quality-focused culture within the organization.

Challenges in Implementation; Despite the strong foundation for quality management, several challenges were identified. Respondents pointed to issues such as limited resources, particularly in terms of skilled personnel and financial constraints, which hinder the implementation of comprehensive quality practices. One interviewee mentioned, "We often face budget constraints that limit our ability to invest in advanced quality management tools and training programs." Additionally, resistance to change was noted, as some staff members are accustomed to traditional practices and are hesitant to adopt new quality standards.

Communication and Coordination; Effective communication was recognized as essential for maintaining quality standards across projects. Interviewees reported that Gift Real Estate utilizes various communication channels, including regular team meetings, project management software, and direct reporting mechanisms. However, they also acknowledged that

communication gaps still exist, particularly among subcontractors and suppliers. One interviewee stated, "While we strive for open communication, there are times when crucial information does not reach all relevant parties, affecting our quality outcomes."

Training and Development; the organization places a strong emphasis on training and development for its staff. Participants noted that Gift Real Estate offers regular workshops and training sessions focused on quality management principles and practices. One project coordinator explained, "Continuous training is vital for us to stay updated on the best practices in quality management. It empowers our team to understand and implement quality standards effectively." However, some interviewees expressed a desire for more comprehensive training programs that cover specific cquality management tools and techniques.

Metrics and Key Performance Indicators; To measure the quality of their projects, Gift Real Estate employs various metrics and key performance indicators (KPIs). Interviewees mentioned that they track client satisfaction rates, defect rates, and adherence to project timelines as primary indicators of quality performance. One interviewee noted, "We conduct regular surveys to gauge client satisfaction, which helps us identify areas for improvement." While these metrics provide valuable insights, some respondents suggested that incorporating more qualitative measures, such as stakeholder feedback, could enhance their assessment of quality management effectiveness. The interviews conducted at Gift Real Estate highlighted both the strengths and challenges of their project quality management practices. While there is a strong commitment from top management and a structured approach to quality, resource limitations, communication gaps, and the need for enhanced training were identified as areas for improvement. By addressing these challenges, Gift Real Estate can further enhance its quality management practices and ensure successful project outcomes.

4.5. Discussion

This discussion focuses on the findings from the study on project quality management practices at Gift Real Estate in Addis Ababa, comparing these results with previous empirical reviews in the field. The analysis highlights similarities, differences, and potential implications for enhancing quality management practices in the construction industry. The study at Gift Real Estate revealed generally positive perceptions of quality management tools and techniques, with mean scores ranging from 3.6 to 3.8. Tools such as benefit/cost analysis and cost of quality were particularly valued, indicating that employees recognize the importance of financial considerations in quality management. Additionally, techniques like benchmarking, flowcharting, and statistical sampling were perceived as effective for identifying areas for improvement and facilitating data-driven decisions.

These findings align with previous empirical studies emphasizing the significance of financial analysis and benchmarking in quality management. For instance, a study by Goh (2012) found that organizations implementing benefit/cost analysis reported improved decision-making capabilities and enhanced project outcomes. Similarly, Ahmad and Naim (2014) highlighted the effectiveness of benchmarking in fostering a culture of continuous improvement within construction firms. When comparing the results of this study with other empirical reviews, several key similarities and differences emerge. First, many previous studies, such as those conducted by Jiang et al. (2017) and Zou et al. (2018), also identified benefit/cost analysis and benchmarking as critical tools for effective quality management in construction projects.

These studies found that organizations employing these tools were better equipped to make informed decisions, optimize resource allocation, and enhance overall project quality. The positive perception of flowcharting as a visualization tool in this study corroborates findings from Kerzner (2013), which emphasized the role of visual aids in improving process understanding and efficiency. Second, while the study at Gift Real Estate demonstrated a generally positive view of quality management tools, it also highlighted some challenges, particularly in the areas of quality audits and Pareto diagrams. Previous research, such as Kumar et al. (2015), has reported similar challenges, indicating that organizations often struggle with the consistent application of these tools. This shared experience points to a broader issue within the industry regarding the effective implementation of quality management practices.

However, one notable difference between this study and previous reviews is the emphasis on training and awareness. Studies like Hwang and Ng (2013) have shown that organizations with robust training programs for quality management tools tend to achieve higher levels of employee buy-in and more effective implementation. The findings from Gift Real Estate suggest that while employees recognize the value of quality management tools, there may be gaps in training and understanding, particularly regarding the application of quality audits and statistical sampling. This indicates an area for potential improvement that could enhance the effectiveness of these tools.

Another comparison can be drawn regarding organizational culture. Research by Khosravi and Zarei (2016) indicated that a supportive organizational culture significantly influences the successful adoption of quality management practices. The study at Gift Real Estate suggests that while there is a general appreciation for quality management tools, the organizational culture may need to be further cultivated to foster greater acceptance and proactive engagement with these practices. The findings from this study, when viewed in light of previous empirical research, offer several implications for practice. First, Gift Real Estate should consider investing in training programs focused on the effective use of quality management tools, particularly quality audits and Pareto diagrams, to enhance understanding and application. Second, fostering a culture that prioritizes quality management and continuous improvement will be essential in overcoming resistance to change and ensuring the successful implementation of these practices.

Moreover, as the construction industry continues to evolve, integrating technology and innovative practices into quality management will be crucial. Organizations like Gift Real Estate can benefit from exploring new tools and techniques that align with current industry trends, thus enhancing their overall project quality management framework.

In conclusion, the assessment of project quality management practices at Gift Real Estate reveals both alignment with existing empirical literature and unique challenges that warrant attention. By leveraging the insights gained from this study alongside previous research, organizations can enhance their quality management practices, leading to improved project outcomes and greater customer satisfaction in the construction sector.

CHAPTER FIVE

5. Summary of finding, conclusion and recommendation

In this chapter, we provide a comprehensive summary of the key findings from the study on project quality management practices at Gift Real Estate. We will draw conclusions based on the analysis and offer practical recommendations aimed at enhancing quality management processes within the organization, ultimately contributing to improved project outcomes and client satisfaction.

5.1. Summary of finding

The assessment of quality management practices at Gift Real Estate in Addis Ababa provides a comprehensive view of employee perceptions regarding various aspects of quality management processes. Utilizing a five-point Likert scale, the findings reveal key insights into the organization's commitment and effectiveness in managing quality.

Quality Management Processes, Policies, Tools, and Techniques: Mean scores for quality planning factors ranged from 3.4 to 3.75. The **Project Quality Objectives** received the highest mean score of **3.75** (SD: 0.9), indicating strong approval among stakeholders regarding the clarity and relevance of these objectives. This suggests that employees find these goals well-defined and effectively communicated, which is crucial for aligning project aims with quality standards. The **Responsibilities and Authorities of Project Staff** scored **3.6** (SD: 1.0), reflecting a solid understanding of roles within the organization, essential for effective project management. Additionally, the **Schedules of Subcontractor Nomination** garnered a mean score of **3.7** (SD: 1.1), indicating that procurement processes are generally well-organized and timely. However, the **Site Organization Chart** received the lowest mean score of **3.4** (SD: 1.2), suggesting variability in perceptions regarding its effectiveness, highlighting a need for further clarification of roles within the organizational structure.

Quality Assurance and Control Practices: The evaluation of quality assurance practices also indicates a positive outlook, with mean scores ranging from **3.8 to 3.9**. The highest score of **3.9** (SD: 1.1) was attributed to the **selection of quality management system requirements**, reflecting strong confidence in the organization's ability to apply appropriate quality standards.

The clarity of quality requirements in tender documents received similar favorable ratings, underscoring effective communication regarding quality expectations. The **evaluation and selection of subcontractors** scored **3.8** (SD: 1.0), emphasizing the importance of ensuring alignment with specified quality requirements. Additionally, practices related to measurement and testing of products also received positive ratings, indicating a robust approach to quality control.

Challenges in Implementation: Despite these strengths, challenges persist. Limited resources, particularly budget constraints, hinder investment in advanced quality management tools and training programs. Communication gaps, especially among subcontractors, were noted as barriers to achieving desired quality outcomes.

Training and Development: Gift Real Estate prioritizes staff training, offering regular workshops focused on quality management principles. While participants acknowledged the importance of continuous training, some expressed a desire for more comprehensive programs that cover specific tools and techniques.

Top Management Involvement: There was unanimous acknowledgment of the pivotal role of top management in supporting quality management initiatives. Leadership actively sets quality standards and aligns projects with organizational goals, creating a culture focused on quality. Overall, the findings illuminate the strengths and challenges of Gift Real Estate's quality management practices. Addressing resource limitations and communication gaps will enhance quality management efforts, leading to improved project outcomes and greater client satisfaction. By focusing on these areas, Gift Real Estate can further strengthen its quality management framework, ultimately achieving greater success in its projects.

5.2. Conclusions

The study on project quality management practices at Gift Real Estate in Addis Ababa provides a comprehensive overview of the organization's approach to quality assurance, planning, and control. The findings reveal several strengths, including a structured quality management system, strong commitment from top management, and effective training programs. These elements collectively contribute to a positive perception of quality management practices among employees. One of the key strengths identified is the clarity of the Project Quality Objectives,

which received the highest approval ratings. This clarity ensures that all stakeholders understand the project's quality expectations, aligning their efforts toward common goals. Furthermore, the responsibilities and authorities of project staff were well recognized, indicating that roles are well-defined, which is crucial for effective project execution. However, the study also highlights areas needing improvement. The lower mean score for the Site Organization Chart suggests variability in perceptions regarding its effectiveness, indicating a potential lack of clarity in organizational structure. This could lead to inefficiencies and misunderstandings among team members.

Additionally, while the procurement processes for subcontractors were generally viewed positively, challenges related to communication gaps, particularly with subcontractors, were identified. These gaps can negatively impact quality outcomes and require immediate attention to ensure that all parties are aligned on quality standards. The assessment of quality assurance and control practices further underscores the importance of consistency across projects. Although the overall perceptions were favorable, the variability in responses indicates that some practices may not be uniformly implemented. Addressing these inconsistencies is essential for enhancing the overall effectiveness of quality management initiatives.

Moreover, while the organization emphasizes training and development, there is a clear need for more specialized programs that cover specific quality management tools and techniques. Expanding training opportunities can empower employees and enhance their ability to implement quality standards effectively. In conclusion, Gift Real Estate demonstrates a solid foundation for quality management, characterized by strong leadership commitment and a structured approach to quality assurance. Yet, to achieve sustained success, it is imperative to address identified challenges, particularly in communication, consistency, and specialized training. By focusing on these areas for improvement, Gift Real Estate can enhance its quality management practices, ultimately leading to better project outcomes, increased client satisfaction, and a strengthened reputation in the competitive real estate market.

5.3. Recommendations

Enhance Clarity of Organizational Structure: Revise and update the Site Organization Chart to clearly define roles, responsibilities, and reporting lines. Improved clarity will ensure that all team members understand their duties, reducing confusion and enhancing collaboration.

Strengthen Communication with Subcontractors: Implement regular communication channels and meetings with subcontractors to discuss quality expectations and project progress. Fostering open communication will align subcontractors with the project's quality standards, minimizing misunderstandings and improving overall quality outcomes.

Standardize Quality Management Practices: Develop standard operating procedures (SOPs) for key quality management practices to ensure consistency across all projects. Standardization will mitigate variability in implementation, leading to more reliable quality management throughout the organization.

Expand Training Programs: Introduce specialized training sessions focused on specific quality management tools and techniques, tailored to various roles within the organization. Enhanced training will equip employees with the necessary skills to effectively implement quality standards, improving overall project performance.

Incorporate Qualitative Measures in KPI Assessment: Integrate qualitative metrics, such as stakeholder feedback and team evaluations, alongside quantitative KPIs. A broader assessment framework will provide deeper insights into the effectiveness of quality management practices and identify areas for improvement.

Regular Quality Audits and Reviews: Conduct regular quality audits and reviews of ongoing projects to assess adherence to quality management practices. Continuous monitoring will help identify issues early, enabling timely corrective actions and ensuring that quality standards are upheld.

Foster a Quality-Centric Culture: Promote a culture that values quality through recognition programs, workshops, and leadership involvement in quality initiatives. A strong quality-centric culture will motivate employees to prioritize quality in their work, leading to improved project outcomes.

Utilize Technology for Quality Management: Invest in quality management software that facilitates documentation, reporting, and tracking of quality metrics. Technology can streamline quality management processes, making it easier to monitor compliance and identify areas needing attention.

Solicit Regular Feedback from Stakeholders: Establish mechanisms for collecting feedback from clients, subcontractors, and employees regarding quality management practices. Regular feedback will provide valuable insights into the effectiveness of current practices and guide future improvements.

Continuous Improvement Initiatives: Create a framework for continuous improvement that encourages employees to suggest enhancements to quality management practices. Engaging employees in the improvement process fosters innovation and ensures that quality management evolves to meet changing project demands. By implementing these recommendations, Gift Real Estate can strengthen its quality management practices, enhance project outcomes, and achieve higher levels of client satisfaction.

5.4. Further Research Directions

Future research at Gift Real Estate could explore the impact of specific quality management tools and technologies on project outcomes. Investigating the effectiveness of training programs in enhancing employee competencies related to quality management would provide valuable insights. Additionally, examining the role of stakeholder feedback in shaping quality practices could lead to improved communication strategies. Comparative studies with other real estate firms could identify best practices and innovative approaches to quality management. Finally, exploring the long-term effects of a quality-centric culture on employee satisfaction and project success would contribute to a deeper understanding of organizational dynamics.

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APPENDIX

QUESTIONNAIRES

ADDIS COLLEGE

DEPARTMENT OF PROJECT MANAGEMENT

Dear Respondent,

I am conducting a study titled "Assessment of Project Quality Management Practices: A Case Study of Gift Real Estate in Addis Ababa" as part of my Master of Arts in Project Management program. This questionnaire aims to gather essential data related to this research.

Your insights and experiences are invaluable, and I kindly request your thoughtful responses to the questions included. Please rest assured that your answers will remain completely anonymous, and we emphasize the importance of honesty and sincerity in your replies. Your participation is crucial for the success of this study, as it will provide a deeper understanding of quality management practices within the organization.

The information collected will be used solely for academic purposes, and your individual responses will not be identifiable in any reports or publications resulting from this research.

Thank you in advance for your time and effort in contributing to this important initiative. Your cooperation is greatly appreciated and will significantly enhance the quality of the findings.

Best regards,

Mikiyas Girma

Mobile: +251912390363

Part one: Questionnaire on Socio-Demographic Information

Question	Options
1. Gender:	□ Male □ Female
2. Age:	□ Under 25 □ 25-34 □ 35-44 □ 45 and above
3. Educational Level:	□ High School Diploma □ Bachelor's Degree □ Master's Degree □ Other: _____
4. Marital Status:	□ Single □ Married □ Divorced □ Widowed
5. What is your role in the project you are involved in?	□ Project Manager □ Project Team Member □ Project Consultant □ Resident Engineer □ Quality Management Team Member □ Technical Team Member
6. Your total work experience in construction projects:	□ Less than 5 years □ 5-10 years □ 11-15 years □ 16 years and above

Part two: Quality management factors, as you requested:

Scale Rating Description

Rating	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Quality Planning: Does your quality plan contain the following?

Descriptions	1	2	3	4	5
Brief description of the project					
Project quality objectives					
Responsibilities and authorities of project staff					
Site organization chart, with named personnel if known					
List of contract documents and drawings					
Site layout plan					
Construction program and sub-programs					
Schedules of subcontractor nomination, material and equipment procurement, based on the construction program					
List(s) of materials and appliances used for the project, showing the verification					

requirement of each					
List of quality procedures and work instructions applicable to project by making reference to the company's Quality Manual and Procedures					
List of project-specific procedures, work instructions and inspection					
List of quality records to be kept, including appropriate quality records from subcontractors					
Inspection and test plans, or list thereof					
Checklists, or target dates for their provision					
Frequency (or provisional dates if possible) of internal quality audits					
Frequency of updating the quality plan					

Quality Assurance: Do you consider the following factors in your quality assurance mechanism?

Descriptions	1	2	3	4	5
Selects the appropriate quality management system requirements for each contract.					
Clearly specifies the quality management system requirements in tender and contract documents.					
Evaluates and selects subcontractors on their ability to satisfy specified requirements.					
Appropriate checking, measurement or testing of products and keeping proper records.					

Quality Control: Do you consider the following factors in your quality control mechanism?

Descriptions	1	2	3	4	5
Select what to control and set standards that provide the basis for decisions regarding possible corrective action.					
Establish the measurement methods used, compare the actual results to the quality standards.					
Act to bring nonconforming processes and material back to the standard based on the information collected.					
Monitor and standardize measuring devices, include detailed documentation for all processes.					

Top Management Commitment to Quality Management

Descriptions	1	2	3	4	5
Communicate the importance of meeting customer requirements					
Setting quality policies.					
Conduct management reviews on project quality.					
Seek to have more financial resources.					
Seek to have more human resources.					

Quality Management Implementation Problems/Challenges

List of Quality Management Implementation Problems	1	2	3	4	5
Inadequate management support					
Unwillingness of project staff to accept the quality system					
Difficulties in understanding the quality system					
Problem with more paperwork					
Problem with documentation					
Difficulties in measuring results					
Problems with contractors' performance					
Problems with consultant's performance					
Ineffective communication					
Increase of cost					
Increase of time					
Inadequate information					
Inadequate technical expertise/skills					
Problem with government bureaucracy					
Problem with raw materials shortage due to inflation					
Problem with right of way					
Problem with scope change					
Lack of standardized quality management guidelines					
Employee turnover					

Quality Management Tools and Techniques Applied

The organization applied	1	2	3	4	5
Benefit/cost analysis					
Benchmarking					
Flowcharting					
Design of experiments					
Cost of quality					
Quality audits					
Inspection					
Control charts					
Pareto diagrams					

Statistical sampling					
Trend analysis					
Any other quality tools and techniques					

Part three: Key informant Interview question

- What quality management practices are currently implemented in your projects at Gift Real Estate?
- How does top management support and engage in quality management initiatives?
- What challenges or barriers have you encountered in implementing quality management practices?
- How do you ensure effective communication and coordination among project stakeholders regarding quality standards?
- Can you describe the training and development programs available for staff regarding quality management?
- What metrics or key performance indicators (KPIs) do you use to measure the quality of your projects?