ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

DEPARTMENT OF PROJECT MANAGEMENT

THE PRACTICE OF CONTRACT MANAGEMENT IN ROAD CONSTRUCTION PROJECTS: THE CASE OF ADDIS ABABA CITY ROAD AUTHORITY PROJECTS

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A Project Work Submitted to Addis Ababa University, College of Business and Economics, School of Commerce, in the partial fulfillment of the requirements for the Degree of Master of Arts in Project Management

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THE PRACTICE OF CONTRACT MANAGEMENT IN ROAD CONSTRUCTION PROJECTS IN ETHIOPIA: THE CASE OF ADDIS ABABA CITY ROAD AUTHORITY PROJECTS

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Approved by a board of examiners and Advisor:

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Internal Examiner	**Signature**	**Date**
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External Examiner	**Signature**	**Date**

DECLARATION

I, Kaleb Tilahun declare that this thesis paper entitled “The Practice of Contract Management in Road Construction Projects in Ethiopia: The Case of Addis Ababa City Road Authority Projects” is a result of my independent research. This work fulfills the requirements for the degree of Master of Art in project Management at Addis Ababa University. This work has not been submitted for a degree at any other university. All the references used in this research work are acknowledged.

Kaleb Tilahun

Signature: _____

Date:_____

LETTER OF CERTIFICATION

This letter certifies that Mr. Kaleb Tilahun has completed the project work entitled "The Practice of Contract Management in Road Construction Projects in Ethiopia: The Case of Addis Ababa City Road Authority Projects" under my supervision. This project work is original in its entirety and meets the standards for submission as partial fulfillment of the requirements for the Master of Arts Degree in Project Management.

Abraraw Chane (PHD) _____

Date & Signature

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVATIONS

AACRA- Addis Ababa City Roads Authority

ADB- Asian Development Bank

ANAO- Australian National Audit Office

CMP- Contract Management Plan

ECDSWCo- Ethiopian Construction Design and Supervision Works Corporation

FIDIC- Federetion Internationales Des Ingenieurs Conseils (Internaltion Federation of Consulting Engineers)

PMBOK- Project Management Body of Knowledge

PMI- Project Management Institute

QMS- Quality Management System

SD- Standard Deviation

SPSS- Statistical Package for Social Sciences

ABSTRACT

This research examines the contract management practices employed by the Addis Ababa City Roads Authority (AACRA) in Ethiopia, focusing on road construction projects. The study aims to assess the contract management practices and the challenges they face in road construction projects in Addis Ababa. To address the objectives of the study, a descriptive research design was used incorporating both quantitative and qualitative approaches. Primary and secondary sources of data were used i.e. questionnaires and semi-structured interviews as a source of primary data and academic literature and various related reports as a source of secondary data. AACRA's contract administration department members were incorporated into this project work. Data was gathered by distributing questionnaires to 30 respondents, where 24 were filled properly and the remaining 6 were deemed to be incomplete, while an interview was conducted with 5 senior professionals as well. The data obtained through the questionnaire has been analyzed quantitatively using descriptive statistics such as mean and standard deviation via SPSS while qualitative data gathered through interviews was analyzed by using a thematic analysis. The findings reveal that while AACRA effectively implements many contract management practices, there are areas for improvement. These include pre-award assessments, performance monitoring and reporting, financial management, risk management, and contract close-out procedures. The research also identifies key determinants of effective contract management, such as strategic decision-making, thorough evaluations, and competent contract management teams. Challenges include unclear project scopes, unrealistic timelines and budgets, corruption, inflexibility, and payment disputes. Based on these findings, the research proposes recommendations for strengthening AACRA's contract management practices to enhance project outcomes, improve value for money, and foster a more efficient and effective road construction sector in Ethiopia.

Key Words: Contract, Contract Management, Contract Management Practices, Challenges of Contract Management

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study:

The construction sector plays a vital role in enhancing the quality of life within any community. Its socio-economic importance within the global economic landscape is undeniable (Ayalew, Dakhli, & Lafhaj, 2016). Road construction endeavors serve as a key method for meeting development goals. In pursuit of such aims, a variety of projects are initiated utilizing different project delivery mechanisms, leading to the establishment of multiple contracts to ensure the desired outcomes are achieved (Richard, Glenn, Keoki, Robert & Jerald, 2015).

Ethiopia, as a rapidly developing country, is faced with the challenge of expanding its road infrastructure to support its growing population and facilitate economic activities. Addis Ababa, the capital city of Ethiopia, experiences significant urbanization and population growth, placing immense pressure on its existing road networks. To address these challenges, AACRA takes on numerous road construction projects aimed at improving connectivity, reducing traffic congestion, and enhancing transportation efficiency (AACRA, 2023). However, the successful execution of these projects heavily relies on efficient contract management practices. In this context, effective contract management in road construction projects becomes crucial to ensure the successful delivery of projects, adherence to quality standards, and optimal utilization of resources (AACRA 2010).

The realm of construction contract management encompasses the inception, execution, assertion, violation, and conclusion of the contract. This agreement entails substantial financial commitments, extensive technical specifications, intricate construction tasks, significant societal ramifications, and typically an extended duration. Consequently, the entitlements and responsibilities of the contract parties will also evolve into a more intricate framework (Tianxin, 2020).

According to Julius and Gershon (2020), contract management can be defined as the practice of ensuring that all parties involved are provided with a contract that fully meets their respective obligations in a competent and efficient manner to achieve the operational objectives outlined in the contract, with a particular emphasis on delivering value for the investment made.

Contract management involves the methodical and effective management of contract creation, execution, and evaluation to optimize both financial and operational outcomes while reducing potential risks (World Bank, 2018).

Contract management encompasses various activities, including contract formation, administration, performance monitoring, and dispute resolution. Effective management of contracts ensures that projects are delivered on time, within budget, and by the specified quality standards. It involves coordination among multiple stakeholders, including project owners, contractors, subcontractors, consultants, and regulatory bodies (Yeheyes Dereje, 2021).

Kakwezi (2012) defines contract management as the comprehensive oversight of contract-related activities, encompassing the solicitation and assessment of bids, contract awarding, execution, performance evaluation, and payment calculation. Additionally, it involves overseeing contract relationships, addressing associated issues, and incorporating crucial contract amendments or adjustments. The primary objective is to guarantee that all parties involved in the contract either surpass or meet each other's expectations and collaborate with the contractor to achieve the contract's goals. As Uher and Davenport (2009) note, this process also entails the practical monitoring, administration, and evaluation of contract terms established during the procurement process, ensuring that deliveries are handled appropriately. The activities of contract management are geared towards ensuring compliance with contractual terms and conditions by all parties, as well as documenting and approving any necessary alterations in the contract implementation.

Effective contract management is an essential component of project management to realize project goals. In other words, contract management is a key managerial function that determines the success or failure of a project. By implementing sound contract management practices, organizations can uphold strong project governance and deliver high-quality services to stakeholders. A well-established and mature contract management system has the potential to yield substantial cost savings for both the project owner and the contractor (Yeheyes Dereje, 2021).

1.2. Background of the Organization

The Addis Ababa City Roads Authority (AACRA) was established in 2010 by the Addis Ababa City Government, as an autonomous agency that operates under the Addis Ababa City Government, to address the growing need for efficient and sustainable road infrastructure

development in the Ethiopian capital (AACRA, 2010). The city's rapid urbanization and population growth had placed immense pressure on existing road networks, leading to traffic congestion and safety concerns. AACRA was established to manage the construction, rehabilitation, and maintenance of all roads within Addis Ababa, aiming to enhance connectivity, improve traffic flow, and ensure safer transportation for its residents. The responsibilities of AACRA include developing comprehensive road network plans, conducting feasibility studies, designing new road projects, and overseeing the construction of new roads and the rehabilitation of existing ones, including road widening, pavement improvements, and bridge construction, ensuring the long-term durability and functionality of the road network through regular maintenance activities, including pothole patching, drainage system maintenance, and street lighting repairs, implementing measures to optimize traffic flow and enhance road safety, including traffic signal management, road markings, and pedestrian safety initiatives (AACRA, 2010).

Therefore looking into the contract management practices and the challenges facing the company is important because AACRA has a significant portfolio of road construction and rehabilitation projects, including major arterial roads, ring roads, and inner city streets.

1.3.Statement of the Problem:

Ethiopia has experienced rapid economic growth and urbanization in the past decade which has increased demand for quality road infrastructure (Ethiopian Roads Administration, 2023). As the capital city, Addis Ababa plays a key role in the nation's development agenda. According to the latest statistics from the Ethiopian Roads Authority, Addis Ababa has over 1500km of urban roads but nearly 40% are in poor condition. AACRA is responsible for the construction, rehabilitation, and maintenance of all city roads through outsourcing projects to private contractors. On average, AACRA undertakes 50-60 road projects annually with a combined budget of over 1 billion Birr (AACRA, 2023). Timely and cost-effective delivery of these projects is crucial for supporting Addis Ababa's growing economy and population.

However, AACRA has faced various challenges with some road projects experiencing delays, disputes, and even contractor defaults in recent years. One of the reasons that is mentioned as a reason is contract management practices during project implementation and oversight of contractors. Proper contract management is a critical success factor for public infrastructure projects globally, as it ensures projects are delivered as per the agreed terms and standards (Yeheyes Dereje, 2021).

Despite the recognition of the importance of effective contract management (Mutua, Waiganjo, & Oteyo, 2014), there remains a lack of understanding regarding the specific challenges and opportunities associated with implementing key practices such as pre-award assessments, performance monitoring, and contract close-out procedures within AACRA's context. Furthermore, the study does not fully explore the influence of external factors like corruption and economic conditions (John & Arjan, 2014; Ayalew, Dakhli, & Lafhaj, 2016; Mutua, Waiganjo, & Oteyo, 2014), or the potential benefits of integrating technology into contract management practices. A more in-depth investigation is needed to assess the effectiveness of specific practices (Mutua, Waiganjo, & Oteyo, 2014), understand the impact of external factors (John & Arjan, 2014; Ayalew, Dakhli, & Lafhaj, 2016; Mutua, Waiganjo, & Oteyo, 2014), and identify opportunities for adopting innovative approaches to contract management

Despite the recognition of the importance of effective contract management (Mutua, Waiganjo, & Oteyo, 2014) and AACRA having well-defined contract procedures on paper in line with Ethiopian proclamations, there seem to be gaps between policy and practice and a lack of understanding regarding the specific challenges and opportunities associated with implementing key practices such as pre-award assessments, performance monitoring, and contract close-out procedures within AACRA's context. While contract management is vital, several factors can influence its effectiveness. According to Amanuel Haile (2022), these factors may include inadequate contract documentation, poor project planning, lack of stakeholder collaboration, inadequate monitoring and control mechanisms, variations in project scope, delays in payment processes, and limited capacity and resources. A more in-depth investigation is needed to assess the effectiveness of specific practices understand the impact of external factors, and identify opportunities for adopting innovative approaches to contract management (John & Arjan, 2014). Understanding the specific challenges and opportunities in contract management within AACRA projects is crucial for enhancing project outcomes and delivering value for money.

To address this, there is a need to thoroughly analyze AACRA's current contract management approaches through empirical research. This will provide recommendations to strengthen their processes and help optimize road project delivery. Therefore, this study aims to investigate the practice of contract management in road construction projects undertaken by AACRA in Addis Ababa. By focusing on AACRA projects, the research will explore the unique context and challenges faced by a prominent road construction authority in Ethiopia.

1.4. Research Questions

The basic research questions that this research answers are

1. What is the existing contract management practice in Addis Ababa City Roads Authority Projects?
2. Which contractual issues are addressed well in the current contract management practices within Addis Ababa City Roads Authority?
3. What are the determinants of effective contract management practices within Addis Ababa City Roads Authority?
4. What challenges exist in the current contract management practices within Addis Ababa City Roads Authority?

1.5. Objective of the Study

- **General Objective of the Study**

The general objective of this research project is to assess the contract management practices and the challenges they face in road construction projects in Addis Ababa and to integrate conceptual material with the practical experience in Addis Ababa City Roads Authority road construction projects in Ethiopia.

- **Specific Objectives of the Study**

Based on the problem stated above, this study aims to address the following specific objectives

1. To assess AACRA's contract management practices for road construction projects.
2. To assess which contractual issues are managed properly.
3. To identify determinants of effective contract management practice in AACRA projects
4. To assess the challenges faced by AACRA in managing contracts

1.6. Significance of the study

The significance of this study lies in its potential to inform policy and practice in contract management within the Ethiopian road construction sector. The findings will help stakeholders, including AACRA, project managers, policymakers, and contractors, identify areas for improvement, develop strategies to mitigate challenges, and establish best practices. Ultimately, this research will contribute to the efficient and sustainable development of road

infrastructure in Addis Ababa, fostering economic growth, improving connectivity, and enhancing the overall quality of life for its residents.

Furthermore, the findings will offer valuable insights not only for AACRA but also for other public agencies undertaking major construction works through outsourcing in Ethiopia and similar developing contexts. This can ultimately support national development agendas by enhancing infrastructure services. In summary, this research addresses an important area with both practical and policy implications.

1.7. Scope of the Study

This research focuses on evaluating the contract management practices employed by the Addis Ababa City Roads Authority (AACRA) in road construction projects within the city of Addis Ababa. The scope of the study is delimited as follows:

- **Geographic scope**- The research is limited to road construction projects undertaken by AACRA within Addis Ababa. It does not extend to road projects managed by other entities such as the Ethiopian Road Administration (ERA) or regional authorities.
- **Industry scope**- The research focuses specifically on the road construction sector. It does not explore contract management practices in other construction sectors.
- **Participant scope**- The research participants consist of AACRA staff members directly or indirectly involved in contract management. It does not include perspectives from other stakeholders.
- **Time frame**- The research examines current contract management practices at AACRA, focusing on projects undertaken within the recent past. It does not delve into historical data or past project experiences.
- **Methodological scope**- The research utilizes both quantitative and qualitative methods to gather comprehensive data. A questionnaire survey is administered to AACRA professionals, providing quantitative data. Semi-structured interviews were conducted to gather in-depth qualitative data on the challenges, opportunities, and perspectives surrounding contract management within AACRA.

1.8. Organization of the Study

The research paper is organized into five chapters. Chapter one deals with the Introduction part. The second chapter deals with the review of related literature with core concepts on contract

management. Chapter three focuses on research methodology (including study population, sampling method, data collection method, data processing, and analysis methods), the fourth chapter presents the data presentation, analysis, and discussion, and the fifth chapter presents the conclusion and recommendation.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Contracts

According to Hutchison et al. (2009), a contract is a voluntary agreement made by two or more parties to establish legally binding obligations. It involves the voluntary commitment of competent parties to perform or refrain from certain actions that can be enforced by law. A contract may impose obligations on one party before any consideration is received from the other party, or even after the agreement has been terminated; for instance, once the supplier confirms receipt of the purchase order, they are obligated to supply materials per the agreed-upon delivery terms.

2.2. Types of Contracts

There are various categories of construction contracts, primarily classified by the method utilized in determining the ultimate contract price. Each of these contract classifications presents its own set of benefits, with some variations assigning construction risks to the party most capable of effectively managing and overseeing them (Richard, et al., 2015). Furthermore, the selection of a particular contract type may hinge on multiple factors, such as the identity and rapport between the owner and contractor, the comprehensiveness and intricacy of the design, the nature of the work being conducted, and the necessity for competitive pricing. PMI (2013) broadly classifies construction contracts as follows:

2.2.1. Fixed-Price Contracts

This category entails establishing a predetermined total cost for a specified product, service, or outcome to be supplied. Fixed-price contracts might also include monetary rewards for achieving or surpassing specific project goals, such as scheduled delivery dates, expenses, and technical performance, or anything that is quantifiable and can be subsequently evaluated. Vendors under fixed-price contracts are legally required to fulfill such agreements, with potential financial penalties if they fail to do so. In the fixed-price framework, purchasers or clients must precisely outline the product or services being acquired.

2.2.1.1. Firm Fixed Price Contracts (FFP)

The firm fixed price contract is the most commonly used contract type utilized in procurement. This contract is highly preferred by purchasing organizations because the price for goods is established at the beginning and remains unchanged unless there are modifications to the scope of work. The seller bears the responsibility for any cost escalation resulting from poor performance and is required to fulfill the contractual obligations. In this type of contract, the buyer must provide detailed specifications for the products or services to be acquired, as any alterations to the procurement requirements may lead to increased costs for the buyer.

2.2.1.2. Fixed Price Incentive Fee Contracts (FPIF)

The fixed-price agreement provides both the purchaser and the vendor with a degree of flexibility by permitting deviations from the agreed-upon metrics, with financial rewards linked to the attainment of established targets. Typically, these financial incentives are associated with the seller's cost, schedule, or technical accomplishments. Performance objectives are defined at the commencement of the contract, and the final contract price is determined upon the completion of all tasks based on the seller's performance. Within this contract, a maximum price limit is established, and any expenses exceeding this limit become the responsibility of the seller, who is mandated to finish the job.

2.2.1.3. Fixed Price with Economic Price Adjustment Contracts (FP-EPA)

This type of contract is utilized when the seller's performance extends over an extensive period, as often seen in long-term partnerships. It is a fixed-price agreement, however, it includes a unique clause that permits predetermined final modifications to the contract price in response to altered circumstances, such as fluctuations in inflation rates or fluctuations in costs for particular goods. The purpose of this contract is to safeguard both the buyer and the seller against external factors that are outside of their control.

2.2.2. Cost-Reimbursable Contracts

This category of contract entails reimbursements for all valid actual expenses accrued during the completion of work, in addition to a fee that accounts for the seller's profit. Cost-reimbursable contracts may also feature financial incentive provisions in cases where the seller surpasses or falls short of specified objectives, such as costs, schedules, or technical performance targets.

A cost-reimbursable agreement allows for project adaptability to reassign a seller when the scope of work cannot be precisely determined at the onset and requires modifications, or when significant risks are present in the endeavor.

2.2.2.1. Cost Plus Fixed Fee Contracts (CPFF)

The vendor is to be reimbursed for all permissible expenses incurred in carrying out the contractual duties and will also receive a predetermined fixed fee payment, which is calculated as a percentage of the original estimated project expenses. This fee is only disbursed upon successful completion of the work and remains constant regardless of the vendor's performance. The fee remains unchanged unless there are modifications to the project's scope.

2.2.2.2. Cost Plus Incentive Fee Contracts (CPIF)

The vendor is compensated for all eligible expenses incurred in executing the contractual work and is awarded a pre-established bonus fee upon successfully meeting specific performance goals laid out in the agreement. Under these contractual arrangements, in cases where the ultimate costs deviate from the initial estimated costs, both the buyer and seller will apportion the variances according to a predetermined cost-sharing mechanism.

2.2.2.3. Cost Plus Award Fee Contracts (CPAF)

The vendor is fully compensated for all valid expenses, however, the bulk of the payment is contingent upon meeting specific, subjective performance benchmarks outlined in the contract. The calculation of the payment is entirely dependent on the buyer's subjective evaluation of the seller's performance and is typically not open to challenge.

2.2.3. Time and Material Contracts (T&M)

Time and material contracts represent a unique blend of cost-reimbursable and fixed-price contractual structures. They are commonly utilized for staff augmentation, securing expertise, and obtaining external assistance when a detailed statement of work cannot be readily established. These contracts share similarities with cost-reimbursable agreements in that they have the potential to remain open-ended and may incur additional costs for the buyer. The total value of the contract and the specific quantity of deliverables may not be fully determined by the buyer at the time of contract inception. Consequently, these contracts can escalate in value akin to cost-reimbursable contracts. Conversely, they can also mirror fixed unit price arrangements when certain parameters are outlined in the contractual agreement. The rates for

labor or materials can be predetermined by mutual agreement between the buyer and seller, taking into account the seller's profit margin, for designated resource categories.

2.3. Standard Forms of Contract

FIDIC (1998) states that four standard forms of contracts are used in the construction industry.

2.3.1. Build Contract

This particular contract is recommended for construction or engineering projects that are created by the client or their designated consultant. The contractor is responsible for executing the project in alignment with the client's design, with the possibility of the contractor taking charge of certain aspects of civil, mechanical, and electrical work. This type of agreement is widely utilized in the industry.

2.3.2. Design-Build Contract

This particular agreement is well-suited for the contractor to deliver both design and construction services. The contractor will create and build according to the client's specifications, which may encompass a variety of civil, mechanical, and/or electrical tasks.

2.3.3. EPC/Turnkey Contract

This category may be suitable for turnkey delivery processes or power plants like factories or comparable establishments - infrastructure ventures where there is a greater level of certainty concerning the ultimate cost and duration with limited client participation. Contractors take on complete accountability for both designing and carrying out projects in this capacity; within turnkey projects, contractors handle all engineering, procurement, and construction (EPC) tasks while delivering fully functional facilities prepared to operate at the push of a button. This method can be employed for swift project execution with seasoned contractors well-versed in advanced risk mitigation strategies.

2.3.4. EPCM or Partnering Contract

Under this agreement, contractors are responsible for carrying out all Engineering, Procurement, Construction, and Management (EPCM) tasks, as well as overseeing facility operation maintenance post-completion for a designated duration.

2.4. Contract Management

According to Bhardwaj (2011), contract management encompasses the facilitation of both parties in meeting their contractual obligations to achieve the desired outcomes. It also entails fostering a positive working relationship between the entity and the contractor. This process is ongoing throughout the duration of the contract, requiring proactive management to foresee future requirements and respond effectively to any arising circumstances.

John and Arjan (2014) elaborated in their publication on contract management as the systematic process ensuring the full compliance of all contract parties with their respective obligations, with the ultimate aim of meeting the operational goals of the contract and the strategic business objectives of the client. This definition characterizes contract management as a methodical approach directed toward the successful and advantageous delivery of projects. Moreover, the definition underscores the importance of the comprehensive fulfillment of obligations by both parties, which can often be challenging to articulate thoroughly. Given the varying degrees of complexity among projects, their outcomes can be more or less predictable. Hence, a well-crafted contract should allow for specific adjustments between the parties involved, should circumstances evolve during project implementation. Additionally, it is essential to note that a contract should not solely focus on the activities required to achieve project objectives, but should also consider the strategic business goals of the end client (John and Arjan, 2014).

According to the agency theory, the misalignment of interests between the principal and an agent can be alleviated by implementing effective contract management procedures and by monitoring activities to prevent opportunistic behaviors (Mutua et al., 2014). Once a contract is executed, it must be meticulously managed to achieve the desired objectives. This entails formal oversight of the contract to ensure that contractual obligations are met at the specified level of quality, within the designated timeframe, and at the agreed-upon cost, all while maintaining an open and constructive relationship between the contracting parties.

Contract management has evolved into a distinct discipline. The client's contract managers play a pivotal role in the initial stages of project development, determining the most suitable contract types and templates based on the project's context and technical intricacies. Throughout project implementation, they provide support to internal project leaders by monitoring contractors' activities to ensure compliance with contractual agreements (John and Arjan, 2014).

Effective contract management is imperative in enhancing profitability, ensuring compliance, and mitigating risks. Contracting operations need to be overseen by a competent team to prevent customer discontent, unnecessary expenses, and delays.

In short, effective contract management ensures that: the strategic objectives established at the beginning are accomplished in a timely and cost-effective manner; issues of non-conformity or deviation are identified early on and addressed or escalated for proper resolution; expenses and risks are adequately controlled; and evaluations are conducted with acquired knowledge being integrated back into the contracting and procurement procedures to ensure ongoing enhancement.

2.5. The Contract Management Process

According to Garrett and Rendon (2005), the contract management process can be analyzed through a six-phase model. These six stages encompass:

I. **Procurement Planning**: the procedure of recognizing which organizational needs can be most effectively addressed by procuring goods or services externally. This procedure involves assessing whether to procure, how to procure, what to procure, how much to procure, and when to procure. Key activities within this process include performing outsourcing analysis; establishing and outlining the procurement requirement; conducting market research; and formulating initial budgets and schedules.

II. **Solicitation Planning**: the meticulous preparation of documentation necessary to facilitate the solicitation process. This entails the thorough documentation of program requirements and the identification of potential sources.

III. **Solicitation**: the strategic process of soliciting bids or proposals from potential sellers to fulfill organizational needs.

IV. **Source Selection**: the methodical process of receiving and evaluating bids or proposals, applying specific criteria to ultimately choose a contractor.

V. **Contract Administration**: the systematic process of overseeing and ensuring that both parties involved in the contract meet all contractual obligations.

VI. **Contract Closeout**: the process of confirming the finalization of all administrative tasks related to a fully executed contract. This encompasses the resolution of any outstanding issues and the formal conclusion and settlement of the contract, as well as the termination of the contract itself.

2.6. Contract Management Theories

To grasp the significance of effective contract management in project management, it is essential to delve into the foundational theories and concepts that underpin contract management within the project realm. These encompass contract compliance theory, contract management theory, principal-agency theory, will theory, and reliance theory, which are explained below.

2.6.1. Contract Compliance Theory

Contract compliance theory involves the meticulous adherence to contractual agreements established between buyers and sellers. Typically, the procurement function is held responsible for any instances of non-compliance. Aberdeen Group (2006) makes a distinction between internal and external compliance. Internal compliance pertains to the strict adherence to the stipulations outlined in the agreement by the purchasing organization, such as payment terms and minimum order requirements, or the exclusive procurement of goods through framework agreements for the entire company.

According to Aberdeen Group (2006), the utilization of framework agreements for an entire organization can foster robust contract compliance while simultaneously reducing procurement costs. This, in turn, has the potential to elevate project success rates. In the realm of projects, external contract compliance can manifest in various ways, including unavailability of products/services, absence of qualified personnel, deviations in prices from the contracted rates, delayed delivery, or delivery of products that do not meet the agreed-upon specifications.

2.6.2. Contract Management Theory

The theory of contract management encompasses category management, contract administration, and the contracting processes (Knoester, 2005). Category management involves overseeing the initiation of the contracting process, while contract management, as defined by Knoester (2005), involves managing the engagement administration of all term agreements until the contract is finalized. Knoester emphasizes the importance of ensuring that relevant information is readily available at the appropriate time and location to support the entire contracting process. In project disciplines, this objective can be achieved by disseminating contract information among key project stakeholders to establish an optimal supply base.

The third aspect of contract management pertains to overseeing contractual realization through contracting procedures, which bridges category management and contract administration processes. The latter is imperative at every stage of contracting to ensure quality, efficiency, and effectiveness (Angelov, 2005 cited in Mohammed Khalfan, 2014).

2.6.3. The Principal-Agency Theory

According to Chiappori and Salanie (2003), the fundamental principle of the contract theory is that there should be a clear understanding of the principal's requirements and the agent's capacity to competently fulfill these requirements. This theory holds particular significance in project contract management, emphasizing the necessity of strategic foresight to ensure the efficient fulfillment of both parties' needs. A well-defined and meticulously planned project contract facilitates a seamless and punctual project execution at a predetermined standard of service. Essentially, the Will Theory asserts that effective communication and cooperation between the principal and agent are pivotal elements of prosperous project management.

2.6.4. The Will Theory

The foundation of a contract is the mutual understanding and agreement between parties, also known as their will. As stated by Hutchison et al. (2009), if one party fails to fulfill an important aspect of the agreement, there can be no true contract. Consequently, neither party is bound by it nor can they demand compensation for any services rendered. This principle asserts that contractual obligations are legally binding because each promisor has voluntarily committed to being held accountable for their promises. Classical theories of contracts prioritize the parties' wills since they inherently deserve respect; thus, exerting force against a defaulting promisor in project contracts aligns with ethical standards while ensuring the successful management of contracts.

2.7. Contract Management Success

Effective contract management is a cornerstone of successful construction projects, transcending the mere attainment of on-time and on-budget completion. A robust contract management framework contributes to a multitude of project outcomes, fostering quality, safety, sustainability, strong relationships, and ultimately, value for money (Amanuel Haile, 2022).

Beyond meeting deadlines and budgets, successful contract management directly impacts project quality. By meticulously adhering to agreed-upon quality standards, minimizing rework, and ensuring long-term durability, well-managed contracts contribute to the construction of high-quality infrastructure (Lowe, 2013). This principle extends to safety, where effective contract management fosters a secure working environment for all parties involved, reducing accidents and minimizing injury risks (Ayalew et al., 2016).

Furthermore, sustainable construction practices are increasingly intertwined with contract management. The incorporation of environmental and social considerations into project planning and execution, guided by well-defined contracts, ensures projects align with broader societal responsibility goals (Benjamin & Belluck, 2001). The impact of effective contract management extends beyond technical aspects, shaping positive relationships between clients and contractors. A well-managed contract fosters trust and collaboration, creating a more positive project experience and streamlining dispute resolution (Hansson & Longva, 2014). Ultimately, this collaborative approach translates into value for money, optimizing resource allocation, minimizing costs, and ensuring projects deliver the expected benefits (Gupta et al., 2008).

However, the effectiveness of contract management in construction is not immune to contextual factors. The complexity of large-scale, multi-faceted projects, with extended timelines, intricate design requirements, and a greater number of stakeholders, poses significant challenges for contract management (John & Arjan, 2014). The regulatory landscape, encompassing government regulations, local laws, and industry standards, also plays a crucial role, impacting contract management practices and the allocation of risk (Pollitt & Talbot, 2004).

Economic conditions exert considerable influence on contract management, necessitating adaptable strategies to navigate fluctuations in labor costs, material prices, and inflation (Choy et al., 2007). Moreover, cultural factors, including differences in communication styles, negotiation approaches, and business practices, can impede effective contract management, particularly in international projects (Schiavo-Campo & McFerson, 2008).

Recognizing the dynamic nature of the construction industry, several emerging trends are shaping the future of contract management. Digital transformation is rapidly changing the landscape, with the increasing use of technology, such as cloud-based contract management

platforms, data analytics, and digital signatures, streamlining contract efficiency and collaboration (Saxena, 2008).

Furthermore, there is a shift from traditional, siloed approaches to a more integrated contract management system, connecting lifecycle stages and fostering better communication (Aberdeen Group, 2006).

Finally, the rise of sustainable procurement emphasizes incorporating environmental and social sustainability considerations into the procurement process, aligning projects with broader social responsibility goals (Camén et al., 2012).

By understanding these complex factors and embracing evolving trends, organizations like the Addis Ababa City Roads Authority can effectively implement contract management practices that deliver on the promise of successful construction projects.

2.8. Contract Management Practices

Contract management practices encompass a set of minimum standards that are deemed acceptable for managing public and private project works. These practices are expected to be upheld by all parties involved in the contract management process, to achieve continuous improvement and optimal performance. By promoting ethical conduct, these practices facilitate better procurement processes, enhance productivity levels, promote high-quality construction work, foster improved working conditions, and ensure value for money while preventing malpractice. The following elements are identified as key components of good contract management practices - most of which have become standard procedures within the construction industry's contract management landscape.

2.8.1. Pre-Award Process

Before awarding the contract, both the client and potential bidders must undertake several crucial activities. These include selecting an appropriate contract type, determining the number of bidders required, issuing formal Invitation to Bid letters, conducting pre-bid meetings, preparing and distributing bid documents, making site visits as necessary, qualification and selection of bidders based on their performance metrics, and issuing addenda. In addition to these steps, clients are also expected to organize debriefing sessions with prospective contractors to explain how the bidding evaluation and selection processes will be conducted.

2.8.2. Contract Management Start-Up

Upon award of a contract, it is imperative to address certain aspects that serve as the foundation for successful contract management. One crucial step involves comprehending both the contractual relationships and provisions during the formation of said contract. If the manager is involved in earlier phases of contract management, they will already possess an understanding of relevant issues related to implementation. For instance, if they participated in drafting the agreement, they are likely familiar with its provisions. Additionally, conducting a kick-off meeting serves as a vital activity that formally announces the commencement of contract administration while facilitating mutual acquaintance between all parties involved in this process.

2.8.3. Contract Administration Team

It is equally important to confirm the availability of ample resources and unwavering support from top-level management for the seamless administration of the contract. The deployment of a proficient contract administration team is crucial to executing and supervising the terms of the agreement. Furthermore, it is incumbent upon the contract manager or team to guarantee that all delegations and authorizations align with the client's demands. Additionally, defining explicit roles and responsibilities for said contract manager or team is essential.

2.8.4. Performance Monitoring and Reporting

Competent contract managers integrate reporting on contractual activity into their regular reporting protocols. This necessitates the establishment of performance benchmarks and periodic measurement and reporting against them. Such measures reinforce the significance of sound contracting practices while also assuring senior management that contracts are being monitored well and measured against policy requirements, as well as fulfilling company reporting obligations (ANAO, 2012).

Performance management encompasses performance monitoring, which entails gathering data on performance, performance evaluation, which involves determining if the performance aligns with the client's requirements, and implementing necessary measures such as recognizing and promoting aspects of exemplary performance, addressing deficiencies in performance, or adjusting contractual specifications to adapt to evolving needs.

Performance management must be an ongoing process throughout the life cycle of all contracts regardless of complexity level. Along with establishing performance indicators and standards within a contract's management plan, arrangements for evaluation should also be agreed upon along with actions that would result from underperformance. Payment for performance links ought to be explicitly established in the contract alongside consequences for non-compliance or underperformance.

The start-up phase is ideal for reviewing the performance monitoring and assessment system since monitoring underscores assessment; they do not exist independently from one another. In practice, feedback reports are provided during every stage of the monitoring process.

2.8.5. Communication and Relationship

Effective management of the contractor and client relationship is paramount to successful contract management. In cases where a new contractual arrangement is in place, it behooves the contract manager to gain an understanding of the existing relationship between parties. Establishing a solid foundation for this partnership during the contracting phase is critical, particularly in identifying any prior issues or challenges that may have arisen. It is recommended that clients adopt a structured approach to creating and maintaining a constructive working relationship with their contractors, including regular communication and providing positive feedback when appropriate. To ensure success, active listening should be employed by both parties; problems should be promptly identified and addressed through impartial decision-making processes; informal daily interactions as well as pre-determined formal meetings with designated personnel from each party are also essential components of effective collaboration. Professional management of these relationships must be founded on cooperation and mutual understanding while taking into account ethical considerations such as probity. The nature of the contract itself (e.g., type, size, duration), along with cultural factors unique to each party involved will influence how best to manage these partnerships successfully over time.

2.8.6. Quality Control and Compliance

It is good to conduct ongoing monitoring and evaluation of quality during contract implementation to maintain controlled and consistent delivery. There exist a variety of quality management and control systems, each requiring careful consideration concerning the specific nature of the contract at hand. An appropriate system or methodology must be selected, agreed upon by both parties and established before commencement of the contract. Potential causes

for substandard quality may include inadequacies in design or specification, deficient quality assurance tests or inspections, as well as utilization of inferior materials (World Bank, 2018).

2.8.7. Contract Risks Management

Risks represent possible events that, should they materialize, can adversely impact the attainment of project objectives. Risk management entails the identification, analysis, and quantification of risks, followed by the development and implementation of a comprehensive risk-mitigation plan designed to enable effective control, reporting, and monitoring of risks.

One effective way to reduce risks is through the adoption of robust Quality Assurance (QA) and Quality Control (QC) practices. Additionally, building redundancies into design processes, engineering activities, documentation procedures as well as reports and records management can help mitigate contract-related risks. Other strategies for managing risk include minimization efforts or avoidance measures in combination with insurance coverage or transfer arrangements. Notably, though, it is often wise for clients to avoid accepting certain types of risks altogether (John &Arjan 2014).

2.8.8. Financial Management

Contract payments must adhere strictly to the stipulations outlined in the contract, which should encompass, company guidelines, regulations, and protocols governing service payments. Payments must be disbursed only upon the contract manager's confirmation that all provisions have been met. Prior to releasing payments, substantiating evidence demonstrating the completion and satisfactory delivery of works, products, or services in accordance with the specified performance or quality standards is essential, along with the submission of a duly prepared invoice or expenditure report. All requisite authorizations and endorsements must be secured before any payment transactions are processed. Timely remittance of payments for exemplary performance is crucial, as delays can jeopardize the contractor-client relationship and should align with the contractual timeframe.

2.8.9. Changes Control

A variation is an amendment to an agreement that alters the original terms or conditions. Such changes are typically made about services, personnel, or pricing. All contracts need to include provisions regulating and permitting variations; however, they should not be used as a means of concealing poor performance or serious underlying issues. The client ought to have control over the ability to modify the contract and it should only occur under defined circumstances.

Standard practice for implementing variations is through a written agreement between the client and contractor by way of formal amendment.

Changes in contractual arrangements have a significant potential impact on both parties' scope and viability under the contract; therefore substantive modifications require careful planning about actions taken during the development of the initial agreement. Assessing effects on timeframes, deliverables, and value-for-money considerations necessitates senior management consultation where necessary before finalizing any changes.

The client must also remain alert regarding risks associated with multiple alterations made over time which may shift the overall allocation of risk within a contract or transfer certain risks onto them without their knowledge.

Another type of variation involves exercising an option available within existing contractual terms extending agreed-upon periods further into future timelines accompanied perhaps by price adjustments, and personnel changes, etc., negotiations for such extensions should commence well before expiry dates if not clients find themselves at disadvantageous positions when attempting renegotiation - especially if critical services depend upon these agreements since shortened timescales reduce opportunities available for assessing best-value options post-expiry dates. Clear documentation outlining reasons behind each proposed change along with its anticipated effects remains crucial throughout this process ensuring transparency while maintaining accurate records.

2.8.10. Documentation and Record

Prior to the commencement of contract management, it is imperative to establish a comprehensive document maintenance system specific to the said agreement. If this is not the case, an adequate record-keeping framework that conforms to the client's policies and practices should be established.

It is crucial that any modifications are reflected in the latest version of the contract and all pertinent decisions documented through meeting minutes, including endorsements and authorizations, must be recorded in writing and stored appropriately. This serves as a foundation for facilitating payments, making informed choices, and ensuring efficient monitoring of contractual obligations.

2.8.11. Claims and Dispute Resolution

In addition to a thorough comprehension of their contractual obligations and responsibilities, both the client and contractor must prioritize relationship management in order to minimize potential disagreements or disputes throughout the contract's life cycle. Generally speaking, disagreements escalate into disputes when the involved parties are unable to achieve a resolution without resorting to formal mechanisms. These conflicts often arise from issues related to interpreting specific provisions within the contract, defining deliverables, meeting performance standards or addressing unexpected events. Although some minor disagreements can be resolved quickly, it is essential that any possibility of future dispute or current conflict be identified early on and addressed promptly in order to prevent further escalation that could negatively impact contract deliverables and result in increased costs for all parties involved.

The terms governing what constitutes a dispute as well as how such issues will be handled should typically be outlined within a dispute resolution clause included in the original contract documentation. Possible forms of dispute resolution mechanisms may include negotiation, arbitration, mediation or litigation.

Finally, once all work has been completed under the given agreement satisfactorily by both sides and all outstanding contractual matters have been resolved appropriately per previously agreed-upon guidelines set forth therein, only then can Contract close-out occur.

2.8.12. Contract Close Out

Contract closeout is one of the most important phases of the contract management lifecycle. As the final stage of the project, proficient and effective administration of this process guarantees a seamless transition from project completion to end-user delivery. Inadequately managed contract closeout may lead to delays and superfluous expenses.

Construction projects are confronted with protracted and intricate contract closeout phases that result in delays, excessive administrative costs, discontentment, strained relationships between parties involved in the project, as well as cash flow impediments for smaller contractors and subcontractors. Generally speaking, it has become an onerous task for project owners to conclude their projects within reasonable timeframes. To this end, it is recommended that closeout activities be taken into account during the planning and scheduling stages by assigning specific durations and responsible entities to minimize the overall duration of the closeout process (Mrozowski et al., 2008).

2.9. Determinants of Effective Contract Management

Gupta, Karayil, and Rajendran (2008) reveal that ineffective contract management leads to significant erosion of savings. They assert that between 30 to 70% of the negotiated savings from strategic outsourcing are squandered, primarily due to spending leakage and subsequent non-compliance. Moreover, they contend that mismanaged contracts not only impact the purchasing organization's credibility but also create a ripple effect, making it challenging to promote and enforce future agreements internally. Over the years, businesses have misconstrued the essence of contract management, resulting in hefty penalties for non-adherence. It is worth emphasizing that establishing a robust contract management system demands considerable time, financial resources, and managerial dedication (Sieke, 2008).

Sanghera (2008) says that an organization's proficiency in contract management can be ascertained by its adept strategic decision-making and meticulous contract drafting. A contract serves as the cornerstone in the realm of efficient and effective management. Each contract should delineate fundamental principles, establish a clear scope, outline execution terms, and specify procedures crucial for fostering successful communication between the contractor and the contracting authority. It should also include provisions for implementing modifications, assessing contractor performance, accepting or rejecting deliverables, identifying and mitigating risks, addressing issues, resolving disputes, approving payments, and ultimately concluding the contract process (Trent, 2007). Furthermore, according to Cruz and Marques (2013), an organization is truly engaged in effective contract management practices if it possesses robust evaluation protocols. These protocols must be clearly defined and adhered to following relevant regulations to uphold integrity, objectivity, impartiality, transparency, confidentiality, and discretion. This ensures that the most qualified candidate is awarded the contract.

Effective contract management is distinguished by a contract management team possessing the necessary qualifications, expertise, knowledge, and experience. It is imperative to clearly outline the roles and competencies essential to the contract management process. Officials entrusted with this duty should be chosen based on objective criteria to guarantee they possess the necessary technical acumen, negotiation prowess, collaboration skills, and effective communication abilities (Uher & Davenport, 2009). Pollitt and Talbot (2004) argue that a contracting authority can also be said to be effectively managing its contracts if it monitors its contractors' performance well. The contracting authority should monitor and continually

evaluate the contractor's performance to ensure the final output achieves the greatest value for money (Hill, 2008).

Furthermore, versatility or adaptability is another crucial factor in an efficient contract management procedure. Both the contracting entity and the contractor must demonstrate flexibility to effectively navigate changes that may arise during project execution. These alterations could stem from institutional modifications, technological advancements, or economic shifts. The successful management of contracts occurs when both parties are open to embracing and accommodating changes (Wysocki, 2009). According to Greve (2008), organizations that excel in contract management strive to establish a mutually beneficial scenario for both the contracting entity and the contractor, a concept that should be upheld throughout the contract implementation phase. Emphasis should also be placed on fostering and sustaining positive cooperation and communication between the involved parties. Swift responses to potential issues and effective dispute resolution are equally vital.

What is more, Saxena (2008) also emphasizes that firms that strive for success also ensure that they have a provision for the execution of changes. The contracts', specific and general conditions, are set together with other Tender Documents at a fairly early stage of the project. This is imperative because then, possible risks or other issues that may arise next are not relatively different. This is the main reason why contracts should provide for the probability that require change and therefore, they must establish mechanisms and procedures by which the appeals for change will be made, reviewed, and either rejected or accepted.

Oluka and Basheka (2014) assert that a clear description of procedures and establishment of contract management plans, appropriate utilization of crucial insights from contract management practice, precise delineation of responsibilities, and the employment of a proficient contract manager all contribute to the enhancement of the efficacy of the contract management process. Ultimately, the success of contract management necessitates proactive measures and preemptive actions. This signifies that the process should be centered on preventive measures concerning potential risks, inadequate contractor performance, as well as the provision of subpar products or services. Parties involved should refrain from engaging in activities of a suppressive nature (Benjamin & Belluck, 2001).

2.10. Challenges in Practicing Contract Management

The successful implementation of contract management can face obstacles and difficulties that may impede its effectiveness. These challenges can arise from a variety of sources and factors, making it crucial for organizations to be aware of and prepared to address them. The achievement of an effective contract management process can be hindered by many challenges such as:

First, contract managers encounter a challenge when it comes to unforeseen work. This suggests that contract management can lead to tasks that deviate from the terms and conditions of the contract. Therefore, an organization must clearly outline its expectations within the contract. The business requirements should be well documented, and individuals at all levels of the organization, as well as end users, should participate in the formulation of the requirements and their documentation in the Statement of Work (Young, 2008). Additionally, constraints related to budget or timeline hinder the efficacy of contract management. Angeles and Nath (2007) highlight that contract managers frequently confront this obstacle due to ambiguous project scope, and impractical timelines and budgets. Therefore, to address this issue, it is imperative to establish a well-defined scope, budget, and timeline for the contract.

Unidentified project status also poses a significant obstacle to effective contract management within an organization. This issue often arises as a result of insufficient communication between the parties involved in the contract. To address this challenge, it is essential to incorporate a comprehensive communication strategy into the contract itself. By doing so, the process of providing timely updates on the status of the contract can be greatly improved. In addition, Aman, Hamzah, Amiruddin, and Maelah (2012) emphasize that contract management may be hindered by a lack of skilled resources. Typically, the effectiveness of contract management is compromised by the absence of the necessary resources for its implementation. As such, it is vital to establish project teams consisting of representatives from each contracting party, as suggested by Dimitri, Piga & Spagnolo (2006).

Choy, Chow, Lee, and Chan (2007), state that conflicts related to payments can impede an organization's ability to effectively manage contracts. To address this issue, it is imperative to establish mechanisms and procedures within the contract that incentivize or penalize based on adherence to the agreement. Furthermore, it is crucial to develop methods for monitoring progress and establishing concrete performance benchmarks.

Panesar and Markeset (2008) also highlight the complexities that change can introduce to a contract management team, particularly when there are inadequate mechanisms in place to address it. Challenges in contract management include a lack of cooperation and inflexibility (Wang & Bunn, 2004; Nysten-Haarala, Lee & Lehto, 2010). The optimal approach to preparing for change involves structuring the contract in a manner that enables the team to effectively identify and assess risks on a weekly basis. Moreover, the contract should encompass provisions for evaluating risks and devising appropriate solutions. Additionally, an established change control methodology should be integrated into the contract.

As Schiavo-Campo and McFerson (2008) state, contract managers also face a challenge when tracking global contracts. This affects organizations that operate internationally or award contracts to both local and global companies. Various factors including language differences and unique business techniques may complicate global contracts and make it hard for the parties to understand each other. To solve this, it is necessary to specify a common language to use in the contract to facilitate clear understanding (Saxena, 2008).

Additionally, lapses in contract management performance could impede effective contract administration. Organizations must verify the fulfillment of their contractual obligations and adherence to deadlines. While managers may grasp the contract specifics during implementation, these details may fade over time. Consequently, to prevent oversight, it is crucial to set up reminders for identifying contract activities and linking them to calendars (Cohen & Eimicke, 2008).

Managing data across various locations can pose challenges in terms of document retrieval and correlation. This can lead to complications when needing to examine numerous documents related to a specific contract or compare different versions of a document, especially if they are stored separately. Thus, organizations must establish centralized data management systems to streamline contract administration (Choy et al., 2007).

Finally, CMKN (2012) highlights some of the factors that contribute to inefficiency in public procurement. Corruption, delayed payments, poor planning, statutory amendments, insufficient use of ICT, low public participation, and improper payment procedures negatively affect public procurement in the country.

In their publication, John and Arjan (2014) identified various challenges encountered in contract management, including:

- Misalignment of objectives between client and contractor,
- Lack of knowledge and expertise by the client
- Too much involvement of engineering and other consultants,
- Inefficient decision-making by the client
- Frequent scope and planning changes requested by the client
- Misunderstanding of what is agreed between client and contractor,
- Payment problems and
- Local political pressure

2.11. Empirical Review

Numerous studies have been undertaken on a global scale as well as within Ethiopia regarding the practice of contract management. Procurement and contract management professionals have implemented multiple initiatives to guarantee the timely and cost-effective delivery of contracts per agreed-upon terms and conditions.

In a study conducted by Mutua, et al. (2014), it was found that the implementation of contract management practices, along with various other factors, was able to account for 66% of the variability in project performance. The researchers discovered that contract management practices had a positive impact on project performance through elements such as contract type, acceptance criteria, and mechanisms for resolving disputes.

Nsanzimana and Mulyungi (2018) focused their research on examining the level of construction project management practices in road construction projects in Kigali, Rwanda. Their findings indicated a significant relationship between contract management practices, which included aspects like contract negotiation, understanding contract terms, and the frequency of contract monitoring, and the overall performance of road construction projects.

Numerous research studies in Africa have explored contract management practices, and one such study was conducted in Kenya by Cherotich Rotich Joyce in 2014. The primary objective of this research was to analyze the impact of proficient contract management practices on the operational performance of state corporations in Kenya. The specific aims of the study were to assess the degree to which state corporations in Kenya implement effective contract management, to identify the factors influencing successful contract management within these corporations, to pinpoint the challenges associated with effective contract management

practices in state corporations in Kenya, and to determine the influence of contract management practices on the operational performance of state corporations in Kenya.

This study utilized a descriptive, cross-sectional survey research design, targeting all 187 state corporations in Kenya. The research employed a simple random sampling technique, selecting a sample size of 50 state corporations. The findings of the study revealed that state corporations in Kenya do indeed implement effective contract management, resulting in a positive impact on their operational performance. Furthermore, it was concluded that effective contract management significantly enhances the operational performance of state corporations in Kenya. Nevertheless, the study recommends continuous training, enhancement of contract management practices, utilization of robust information systems, and the adoption of increased flexibility and risk management strategies.

In a study by Ayalew, et al. (2018) that evaluated the performance and challenges within the Ethiopian construction industry, it was noted that the industry's utilization of contract management practices related to safety, risk, cost, and time management was notably lacking and unsatisfactory. The research also pointed out schedule delays ranging from 61-80% and deviations in planned costs, as well as other factors like risk, quality, resource allocation, and safety, deviating between 21-40% from the originally expected requirements.

The research conducted by Murat and Hesham (2020) involved a detailed analysis of construction contract administration practices for construction projects using fuzzy structural equation modeling. By collecting data from 336 construction professionals globally, they identified key contract management practices as

1. Effective communication and relationship building,
2. Monitoring and reporting performance, and
3. Establishing a documentation and recording system to ensure streamlined and successful contract administration.

A qualitative study conducted by Tigist Belachew in 2016 on the Evaluation of Project Contract Administration Practices: A Case Study of Addis Ababa Light Railway is a noteworthy addition to our empirical research. The study identified a significant research gap concerning the impact of contract administration on project outcomes. Through research questions and focus group discussions, the researcher examined the policies and procedures utilized in a bilateral cooperation project, the identification of stakeholders and their respective roles, the

current state of contract administration, as well as the effectiveness and implications of maladministration in contract management. Various types of secondary data were also extensively utilized in the study. The findings revealed that adherence to legal obligations, maintenance of confidentiality, engagement of experienced professionals in project execution, and establishment of a robust evaluation and monitoring system, all contributed to the success of the Addis Ababa Light Railway Transit project in terms of well-managed contract administration.

In a study by Amanuel Haile (2022) that evaluated the practices and challenges in contract management of the construction sector within the ECDSWCo, it was noted that despite a general commitment to contract management principles, the Ethiopian Construction Design and Supervision Works Corporation (ECDSWCo) faces significant challenges in implementing effective contract management practices, particularly due to a lack of clear project scope definition, which frequently leads to variations, delays, and disputes. The research demonstrates that there is a clear correlation between unclear project scope and the challenges faced by ECDSWCo in achieving effective contract management. The findings highlight the need for the organization to prioritize a more thorough pre-award process with detailed project specifications and collaborative stakeholder engagement to minimize ambiguity and address potential issues before they escalate.

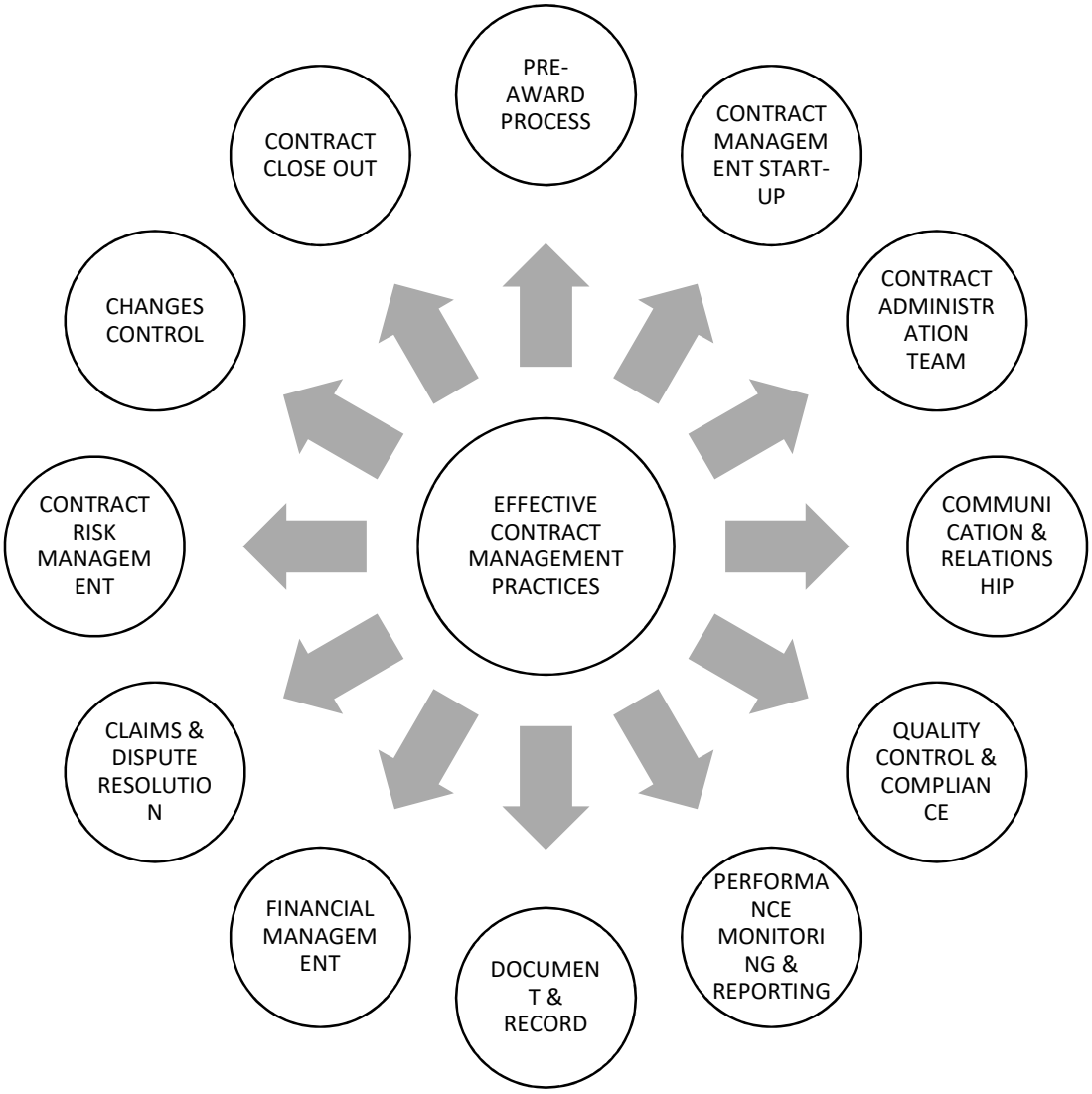
Yehyes Dereje's (2021) study on contract management practices in Ethiopian federal road construction projects reveals the major challenges in contract administration, poor communication, unclear contract document drafting, and a lack of understanding of roles and responsibilities among stakeholders. These challenges contribute to the overall shortcomings in contract management, hindering project success and potentially leading to delays, disputes, and cost overruns. The research emphasizes the critical need for improvements in contract management practices, including a more robust approach to project planning, clear communication protocols, and greater clarity in contract documentation. Investing in training programs and addressing the challenges of corruption and payment delays are also essential for improving contract management effectiveness and ultimately enhancing the performance of Ethiopian road construction projects.

The empirical review highlights the critical role of effective contract management in ensuring successful road construction projects, particularly in developing countries like Ethiopia. Studies such as Mutua, Waiganjo, and Oteyo (2014) emphasize the link between robust

contract management practices and improved project performance. However, research consistently points to challenges faced in developing contexts, including unclear project scopes, unrealistic timelines and budgets, corruption, and limited use of technology (John & Arjan, 2014; Ayalew, Dakhli, & Lafhaj, 2016; Mutua, Waiganjo, & Oteyo, 2014). This research aims to investigate the specific challenges and opportunities related to contract management practices within this context, drawing on these existing empirical insights.

2.12. Conceptual Framework

Fig 2.1: The good practice (effective) contract management framework



Source: National Audit Office (UK), 2016

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines the research methodologies employed to accomplish the research objectives. It delves into the collection of relevant data, detailing the sources and methods used to obtain such data.

Furthermore, it presents the data sources, research tools, sample size, and analytical approach. The subsequent subsections offer a comprehensive overview of the research strategy utilized during the study, along with an exposition of the rationale behind the methodology chosen.

3.2. Research Approach

The research methodologies employed in this project fall into two categories: quantitative research and qualitative research. The selection of the research methodology depends primarily on the nature of the study and the availability of the necessary information (Saunders, Lewis, and Thornhill, 2009).

Quantitative research involves the objective measurement of a problem based on a theoretical framework consisting of variables that can be quantified; on the other hand, qualitative research focuses on interpreting meanings, experiences, and descriptions to subjectively assess the opinions, perspectives, or perceptions of participants on a specific issue. By integrating both quantitative and qualitative research methods, this study provides a comprehensive and nuanced understanding of contract management practices at AACRA. The quantitative data provides a broad overview of the prevalence and perceived effectiveness of practices, while the qualitative data offers in-depth insights into the specific challenges and opportunities associated with these practices.

The mixed methods approach allows for triangulation, where findings from both quantitative and qualitative data are used to provide a more complete and accurate picture of the phenomenon under investigation.

3.3. Research Design

According to Saunders, Lewis, and Thornhill (2009), research design refers to the overarching strategy detailing the methodology for addressing the research questions. It encompasses well-defined goals stemming from the research question(s), outlines the sources from which data will be gathered, takes into account the inherent limitations, and delves into ethical considerations.

The research design that was applied in this study is descriptive, employing a cross-sectional approach. This design allows for the examination of contract management practices within AACRA at a specific point in time. To have a comprehensive understanding of both the prevalence and the nuances of these practices, this study integrates both quantitative and qualitative methods, aligning with the principles of mixed methods research.

3.4. Population of the Study

3.4.1. Target Population

The target population refers to the group of individuals, events, and documents containing the necessary information for the research study, from which a sample is extracted (Saunders, Lewis, and Thornhill. 2009). Thus, the study targeted the Addis Ababa City Roads Authority (AACRA) & its contract management department.

According to AACRA currently, there are two directorates assigned to manage road construction contracts, namely the “Road Construction Contract Administration Directorate” and the “Housing Roads Construction Contract Administration Directorate”. Each of them consist of two teams: Team A and Team B. Each team consists of 6-10 members.

Generally, the sampling unit of the study is AACRA professionals who are working in the aforementioned contract administration directorates.

3.4.2. Sampling Technique & Sample size

According to Saunders (2007), sampling techniques offer a variety of methods that allows a researcher to minimize the amount of data required by focusing solely on data from a subgroup rather than all possible elements. This study used a non-probability purposive sampling technique to ensure the selection of relevant individuals. This technique targeted 30 professionals who directly or indirectly participated in the contract management process of

diverse construction projects overseen by AACRA. No formula was used to determine the sample size as the target population of the study is small. Therefore all entities from the target population are taken for the research and the representation is 100%.

3.5.Type and Source of Data

To achieve the study's objectives, both primary and secondary data sources were utilized. Primary data is gathered through a structured questionnaire survey and semi-structured interview. The questionnaire focuses on quantifying the prevalence of various contract management practices, while interviews delve deeper into understanding individual perspectives and challenges encountered during implementation. Secondary data, sourced from relevant academic literature, books, articles, journals, and online resources, were used to provide a theoretical framework and contextual background for the research.

3.6. Data Collection Instruments

Two primary data collection instruments were employed:

3.6.1. Questionnaire

Questionnaires were utilized in the research due to the extensive nature of the variables identified through the literature review and topic area, necessitating a structured format. This approach allows respondents the flexibility to provide nuanced responses. Careful consideration was given to designing the questionnaire to maximize response rates. Initially, a pilot questionnaire was distributed to ten chosen participants and refined based on their feedback to create the final version.

The alternative responses in the structured section of the questionnaire were formulated using a Likert scale consisting of five ordinal measures of agreement (ranging from 1 to 5): "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree."

A Likert scale presents a statement for respondents to assess based on subjective or objective criteria, eliciting their opinions or experiences. This method typically gauges the level of agreement or disagreement among participants. The rationale behind employing this straightforward scale is to facilitate respondent comprehension and streamline data analysis. The questionnaire was distributed to esteemed professionals selected from relevant stakeholders in the field of road construction.

3.6.2. Interview Guide

In addition to the quantitative data gathered through a questionnaire survey, qualitative data was collected through semi-structured interviews with five contract management professionals at AACRA. The interviews aimed to provide in-depth insights into the organization's contract management processes, challenges, and key success factors.

3.7. Method of Data Analysis & Presentation

The gathered data underwent analysis through a combination of quantitative and qualitative methodologies. The information derived from closed-ended questionnaires was primarily scrutinized using descriptive statistics. These closed-ended queries were inputted into SPSS software to conduct a thorough descriptive evaluation, facilitating the quantitative presentation through mean and standard deviation. Within the analysis, the "Mean Score" or "Average Index" technique was utilized to determine the comparative significance of various factors concerning Contract Management. The assessment will prioritize the factors based on frequency analysis and mean score/average index. This index was computed as follows:

$$MS = \sum (f * \mu)/N$$

Where: MS- Mean Score

f- Frequency of responses for each score

μ- Weighting given to each factor by respondents (1 to 5)

N- Total number of responses concerning each factor

Mean scores are further analyzed to represent the mean value of the respondents Likert scale rating converted to a continuous index, which is then categorized into distinct groups.

Table 3.1: Mean Score Ranking

Likert Scale	Likert Ranking	Mean Score Category	Interpretation
1	Strongly Disagree	1.0-1.49	Very Poor
2	Disagree	1.5-2.49	Poor
3	Neutral	2.5-3.49	Uncertain

4	Agree	3.5-4.49	Good
5	Strongly Agree	4.5-5.00	Very Good

Source: Stevens, J., 2013

The qualitative data obtained from the interviews conducted with individuals at AACRA was carefully examined through the process of thematic analysis. During this analysis, the researchers focused on identifying common themes and patterns that emerged from the interview transcripts. These themes were then categorized and interpreted to gain a deeper understanding of the underlying issues surrounding contract management practices within the organization. This method allowed the researchers to uncover valuable insights that could potentially lead to improvements in AACRA's contract management processes and overall efficiency.

3.8.Reliability and Validity

- **Reliability**

Reliability is a measure of the degree to which research instruments yield consistent results or data after repeated trials. The Cronbach's reliability test was performed to ascertain the reliability of the instrument. Classification on quality of Cronbach's Alpha value by Stevens (2013) states that a value exceeding 0.9 is excellent, between 0.9 and 0.8 is good, 0.7 to 0.8 is acceptable, 0.6 to 0.7 is questionable 0.5 to 0.6 is poor, and below 0.5 is unacceptable. The Cronbach's results of both contract management and performance should be between 0.75 and 0.8 respectively to be interpreted as acceptable.

The questionnaire's internal consistency and reliability are assessed through the utilization of Cronbach's Alpha test. The Cronbach's Alpha values for the questionnaire's measurement items vary from 0.699 to 0.853. For the measuring instrument to be deemed reliable, its Cronbach's Alpha value should ideally exceed 0.70. The majority of the values surpass this threshold, except for two values that fall slightly below 0.699. Thus, the measuring instrument can be considered to be highly reliable.

Table 3.2: Reliability Statistics

No	**Contract Management Practices**	**No of Items**	**Cronbach's Alpha**

1	Pre-Award Processes	6	0.70
2	Contract Management Start-Up	6	0.73
3	Contract Administration Team	3	0.70
4	Communication and Relationship	5	0.76
5	Quality Control and Compliance	5	0.71
6	Performance Monitoring and Reporting	5	0.75
7	Document and Record	4	0.71
8	Financial Management	5	0.76
9	Claims and Dispute Resolution	5	0.70
10	Contract Risk Management	5	0.75
11	Changes Control	3	0.85
12	Contract Closeout	7	0.73

Source: Own survey, 2024

- **Validity**

Validity is the degree to which a measure accurately portrays what it is intended to represent. Ensuring validity necessitates a comprehensive comprehension of the subject being measured and striving for precision and correctness to the highest degree.

The questionnaire used in this research is formulated by incorporating established research instruments within the field of contract management. The validity of the questionnaire for assessing contract management practices is exemplified in the study conducted by Murat and Hesham (2020), which utilized the questionnaire to evaluate construction contract administration practices critically. Furthermore, a significant portion of the questionnaires are adapted from the works of Nsanzimana and Mulyungi (2018), ADB (2021), and John & Arjan (2014), all of which have demonstrated the questionnaire's validity.

3.9. Ethical Consideration

Flanagan (2016) defined ethics as that which is related to human values of right and wrong. Madges (2006) noted that ethical research is considered harmless; it allows informed consent

and respects the rights of persons being studied. The major ethical problems in this study were informed consent and privacy as issues concerning participants. It is important during the process of research for the researcher to make respondents understand that participation is voluntary and that participants are free to refuse to answer any question and to withdraw from participation any time they are chosen.

Another important consideration involves getting the informed consent of those going to be met during the research process, which involves interviews and observations on issues that may be delicate to some respondents. The researcher undertakes to bear this seriously in mind. Accuracy and honesty during the research process are very important for academic research to proceed. A researcher should treat a research project with utmost care, to avoid temptations to cheat and generate research results, since it jeopardizes the conception of the research.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter delves into the analysis and interpretation of the data gathered through a questionnaire survey distributed to professionals involved in the contract management process of Addis Ababa City Roads Authority projects.

Initially, the collected data is organized and coded to create comprehensive datasets essential for analysis. Statistical techniques, specifically using SPSS, are applied to scrutinize the questionnaire data in line with the research's overarching goal. Descriptive statistics, such as mean and standard deviation, are utilized to elucidate and interpret the findings.

The demographic characteristics of the respondents are detailed in the first section. Subsequently, mean scores accompanied by standard deviations are calculated to delineate the extent of each contract management practice implemented by the company, as assessed through a Likert scale with five levels in the questionnaire (refer to annex I). Moving forward, pivotal factors affecting effective contract management are identified through the questionnaire (refer to annex I) employing a Likert scale with five levels. Lastly, the section evaluates the obstacles encountered by the company, assessed through the questionnaire (refer to annex I) utilizing a Likert scale with five levels.

4.2. Response Rate

A total of 30 questionnaires were personally distributed to relevant professionals employed at AACRA's headquarters situated in Addis Ababa near Sarbet. Among the questionnaires gathered, twenty-four (24) were properly filled while the remaining were deemed incomplete. Consequently, the overall response rate stands at 80% and will be subjected to thorough data analysis and discussion in the study.

4.3. Background of the Respondents

The participants were asked regarding their gender, age, level of education as well as their background in project and contract management.

Table 4.1: Profile of respondents

Gender	**Frequency**	**Percent**
Male	14	58.3
Female	10	41.7
Total	24	100
Age	**Frequency**	**Percent**
21-30	7	29.16
31-40	15	62.5
41-50	2	8.34
>50	0	0
Total	24	100
Academic Qualification	**Frequency**	**Percent**
PHD	0	0
MA/MSc	9	37.5
BA/BSc	15	62.5
Diploma	0	0
High School	0	0
Total	24	100
Work Experience	**Frequency**	**Percent**
< 5 yrs	4	16.6
5-10 yrs	5	20.9
10-15 yrs	10	41.6
>15 yrs	5	20.9
Total	24	100

Source: Own survey, 2024

4.4. Assessment of Contract Management Practices

4.4.1. Quantitative Analysis

This section of the questionnaire sought to assess the contract management practices and which contractual issues are managed properly in Addis Ababa City Roads Authority projects using a 5-point Likert Scale ranging from 1=Strongly Disagree; 2=Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree.

The research examines contract management practices, which are categorized into pre-award processes, contract start-up, contract administration team, communication and relationship management, quality and compliance, performance monitoring and reporting, document and record management, financial management, claims and disputes resolution, contract risk management, changes control, and contract closeout management. Each category consists of six, six, three, five, five, five, four, five, four, four, three, and seven specific practice items, respectively. The mean score for each practice within each category, as well as the composite mean score for each category, are calculated to evaluate the extent to which respondents apply these practices in contract management. The following mean ranges are utilized to determine the mean of each indicator and its interpretation:

Table 4.2: Questionnaire Response Interpretation

Mean Range	Response Mode	Interpretation
1.0-1.49	Strongly Disagree	Very Poor
1.5-2.49	Disagree	Poor
2.5-3.49	Neutral	Neutral/ Uncertain
3.5-4.49	Agree	Good
4.5-5	Strongly Agree	Very Good

Source: Stevens, J., 2013

The following are the results and interpretations of the computed values of the individual and composite mean scores of the practices.

A. Pre-Award Processes

Table 4.3: Pre-Award Practices Survey

A	Pre-Award Process (Bidding and Selecting)	Mean	SD	Interpretation
1	Is a pre-bid conference held to establish a cohesive understanding among all potential bidders regarding the technical specifications and project scope?	2.6250	0.6469	Uncertain
2	Does your organization utilize assessment criteria, evaluation, and a weighting mechanism to assess the proposals submitted by bidders?	3.8333	0.5647	Good
3	Does your assessment focus on the project management and technical capabilities of the prospective bidders?	4.0833	0.6539	Good
4	Is the contractor's past performance on previously awarded contracts taken into account when evaluating proposals?	3.9167	0.7755	Good
5	Does your organization perform a pre-award assessment of the prospective contractor to validate the contractor's technical, managerial, and financial capability?	2.7083	0.4643	Uncertain
6	Does your organization offer debriefings to both successful and unsuccessful contractors following the evaluation results?	4.1667	0.3807	Good
	Average mean	**3.5556**	**0.8673**	**Good**

Source: Primary data 2024

The data presented in Table 4.6 reveals that the pre-award process has achieved an average composite score of 3.5556 out of 5, suggesting that the respondents agree with the implementation of this practice within the company. Among these procedures, both pre-bid conferences held before bid solicitation and the assessment of potential contractors before contract execution received mean scores of 2.6250 and 2.7083, respectively, indicating uncertainty among the respondents regarding the execution of these practices. Conversely, practices such as the consideration of evaluation criteria, standards, a weighting system, as well as the evaluation of managerial and technical capabilities of bidders have mean scores above 3.5000, demonstrating that the company indeed implements these practices during the

evaluation process. Additionally, the company conducts debriefings with bidders following the evaluation results.

B. Contract Start-Up

Table 4.4: Contract Management Start-Up Practices Survey

B	Contract Management Start-Up	Mean	SD	Interpretation
1	Are the standard forms, conditions, and terms of the contract clearly understood by both parties before signing the contract?	3.7083	0.7506	Good
2	Do you conduct project kick-off meetings?	3.8333	0.5647	Good
3	Does the contractor provide plans for work, environmental, and safety regulations?	3.4583	0.6580	Uncertain
4	Do you assess the contractor's personnel and manpower plan?	3.6667	0.5647	Good
5	Do you assess the qualifications and expertise of subcontractors?	2.7083	0.4643	Uncertain
6	Do you ensure that the contractor provides contract securities and insurance coverage?	3.9583	0.4643	Good
	Average mean	**3.5556**	**0.7074**	**Good**

Source: Primary data 2024

Table 4.7 displays a composite mean score of 3.5556, indicating that the majority of the practices within this category are implemented by the company. These practices include elucidating the terms and conditions of the contract documents, conducting project kick-off meetings, evaluating the workforce of the contractor, and ensuring the contractor submits work, environmental, and safety regulations, as well as security and insurance plans. Nevertheless, survey respondents indicated that they do not assess the qualifications and experience of subcontractors.

C. Contract Administration Team

Table 4.5: Contract Administration Team Practices Survey

C	Contract Administration Team	Mean	SD	Interpretation

1	Is there a competent contract administration team assigned for contract management?	3.7083	0.7506	Good
2	Have the roles and responsibilities of the team been clearly defined?	3.7500	0.7372	Good
3	Do you conduct regular evaluations of the team's performances?	2.8750	0.7409	Uncertain
	Average mean	**3.4444**	**0.8373**	**Uncertain**

Source: Primary data 2024

The data presented in Table 4.8 indicates that a proficient contract administration team with well-defined roles and responsibilities is in place, as reflected by the composite mean score of 3.4444. However, it remains uncertain whether the company conducts regular assessments of the team's performance, given the mean score of 2.8750 for this particular practice.

D. Communication and Relationship

Table 4.6: Communication and Relationship Management Practices Survey

D	Communication and Relationship Management	Mean	SD	Interpretation
1	Is there a comprehensive communication plan in place for engaging with stakeholders?	2.8750	0.7409	Uncertain
2	Do you properly oversee and manage the communication between the client, the consultant, and the contractor?	2.9167	0.8805	Uncertain
3	Is there timely and proper management for inquiries and concerns brought up by the contractor?	3.7083	0.6903	Good
4	Do you conduct regular and frequent meetings between the parties (the client, the consultant, and the contractor)?	3.6667	0.5647	Good
5	Do you practice a clear and effective communication?	2.8333	0.4815	Uncertain
	Average mean	**3.2000**	**0.7843**	**Uncertain**

Source: Primary data 2024

The results depicted in Table 4.9 reveal that the communication and relationship practices exhibit a composite mean score of 3.2000 out of 5, suggesting uncertainty regarding the company's efficacy in engaging in effective communication and relationship management with the contractor during contract administration. Nevertheless, it is acknowledged that certain practices are indeed being implemented, such as addressing contractor-raised concerns and conducting regular meetings between the involved parties. With mean scores of 2.8750, 2.9167, and 2.8333 respectively, respondents are uncertain about the presence of a stakeholders' communication plan, interface management, and the establishment of clear and efficient communications between the parties.

E. Quality Control and Compliance

Table 4.7: Quality and Compliance Management Practices Survey

E	Quality and Compliance Management	Mean	SD	Interpretation
1	Do you conduct an audit of the contractor's Quality Management System (QMS)?	2.7917	0.6580	Uncertain
2	Do you evaluate the timely issuance of construction materials quality assurance certificates, test reports, and shop drawings?	3.6667	0.7614	Good
3	Do you conduct regular assessments to ensure the quality of the work?	3.7917	0.5882	Good
4	Do you control noncompliance with work and track corrective actions?	3.7917	0.4149	Good
5	Do you manage construction plans and design progress for projects completed by external entities?	3.7500	0.8969	Good
	Average mean	**3.5583**	**0.7756**	**Good**

Source: Primary data 2024

The data presented in Table 4.10 reveals that the company's Quality Control and Compliance practices have a composite mean score of 3.5583 out of 5. This score suggests that the company consistently implements quality control measures, such as engaging external consultants to review construction designs, examining the quality of construction materials, assessing shop drawings, monitoring work quality, identifying non-compliance issues with the contractor, and providing appropriate corrective actions. This is evident from the mean scores for these

practices, which range from 3.6667 to 3.7917. However, there is uncertainty among the respondents regarding the auditing of the Quality Management System (QMS) of the contractor's firm.

F. Performance Monitoring and Evaluation

Table 4.8: Performance Monitoring and Reporting Management Practices Survey

F	Performance Monitoring and Reporting Management	Mean	SD	Interpretation
1	Is there a monitoring and reporting system?	3.8333	0.9168	Good
2	Are regular progress reports developed and reported to stakeholders?	3.6250	0.8242	Good
3	Do you report and address major issues on time?	3.7917	0.5882	Good
4	Is there a mechanism to monitor contractor's relationships, resources, and care of work?	2.7083	0.6241	Uncertain
5	Do you inform the contractor of their failure to meet obligations and the proposed schedule for recovery?	3.8333	0.8165	Good
	Average mean	**3.5583**	**0.8677**	**Good**

Source: Primary data 2024

The data from Table 4.11 reveals that the company's performance monitoring and reporting practices have achieved a composite mean score of 3.5583 out of 5, suggesting that the company effectively conducts monitoring and reporting tasks such as regular progress updates, timely resolution of significant issues, consistent communication with key stakeholders regarding progress, and notifying the contractor of any performance deficiencies and their corresponding corrective actions. The mean scores for these practices are 3.8333, 3.6250, 3.7917, and 3.8333, respectively. However, respondents expressed uncertainty regarding whether their company has the necessary mechanisms in place to monitor the contractor's resource capabilities.

G. Document and Record

Table 4.9: Document and Record management Practices Survey

G	Document and Record Management	Mean	SD	Interpretation

1	Is there a formal contract management documentation system?	3.8333	0.9168	Good
2	Do you ensure timely documentation through the use of registers?	3.7917	0.7211	Good
3	Are your documentation and records systems supported by the use of information technology?	3.7917	0.5882	Good
4	Do you provide stakeholders with accurate, timely and relevant information when requested?	2.7083	0.6241	Uncertain
	Average mean	**3.5313**	**0.8578**	**Good**

Source: Primary data 2024

The data presented in Table 4.12 reveals that the documentation and recording protocols have achieved a composite mean score of 3.5313 out of 5. The majority of the tasks have a minimum mean score of 3.7, suggesting that the company has a robust documentation system that is efficiently supported by an advanced information technology infrastructure. This system effectively carries out recording activities, such as registering and organizing all documents with proper references. However, there is uncertainty regarding whether relevant stakeholders receive the necessary and precise information when requested, as this aspect has a mean score of 2.7083.

H. Financial Management

Table 4.10: Financial Management Practices Survey

H	Financial Management	Mean	SD	Interpretation
1	Do you have a well-established financial system for the payment process?	3.5417	0.7790	Good
2	Do you inform the client and certify payable amount on time?	3.6250	0.8242	Good
3	Does the client make payments to the contractor on time?	2.5417	0.5090	Uncertain
4	Do you advise the client for contingency funds?	3.1667	0.7020	Uncertain
5	Is there a provision for penalty payment or compensation in place for delays in payment by the	3.0833	0.7755	Good

	client or delays in work completion by the contractor?			
	Average mean	**3.1917**	**0.8127**	**Uncertain**

Source: Primary data 2024

The data presented in Table 4.13 indicate that the financial procedures received an average score of 3.1917 out of 5, suggesting uncertainty among respondents regarding the adherence to payment-related protocols outlined in contracts. Despite the establishment of financial structures, policies, and regulations for the payment process, clients are not consistently making timely interim and final payments to contractors, even though payment certificates are processed and approved promptly by consultants. Furthermore, there is doubt among respondents regarding the full implementation of penalties for delayed payments by clients or delayed work by contractors, as stipulated in the contract terms. Additionally, it remains unclear whether clients are advised to include a contingency plan or reserve fund in the project budget.

I. Claims and Disputes Resolution

Table 4.11: Claims and Disputes Resolution Management Practices Survey

I	Claims and Disputes Resolution Management	Mean	SD	Interpretation
1	Is there a robust claims and dispute resolution system in place?	3.7083	0.6241	Good
2	Do you timely inform and analyze the contractor's claims to the client or vice versa?	3.6250	0.8242	Good
3	Do you negotiate on claims and disputes with the contractor?	3.5417	0.5090	Good
4	Do you provide support to the parties for alternative dispute resolution mechanisms?	3.5417	0.5882	Uncertain
	Average mean	**3.6083**	**0.6404**	**Good**

Source: Primary data 2024

Table 4.14 reveals that the claims and disputes resolution mechanism has achieved a composite mean score of 3.6083 out of 5, surpassing the neutral rank value. The majority of activities

within this category, such as timely notification, assessment, and negotiation of claims submitted by the contractor for resolution, are consistently carried out. Furthermore, the company assists the involved parties in seeking resolution through alternate dispute resolution methods or other improved approaches.

J. Contract Risk Management

Table 4.12: Contract Risk Management Practices Survey

J	Contract Risk Management	Mean	SD	Interpretation
1	Do you have a contract risk management system?	3.5833	0.5836	Good
2	Are contract risks assessed periodically?	2.6667	0.5647	Uncertain
3	Is there a responsible body assigned to manage contract risks?	2.6667	0.4815	Uncertain
4	Do you regularly monitor the financial status and risk of bankruptcy of the contractor?	2.8750	0.5367	Uncertain
	Average mean	**2.9479**	**0.6549**	**Uncertain**

Source: Primary data 2024

The data presented in Table 4.15 indicates that the majority of the contract risk practices have a mean score below 3.50. It remains uncertain whether the company has implemented a comprehensive contract risk management system to analyze and mitigate potential risks that may arise during construction activities. Furthermore, these potential risks are not evaluated regularly, and there is no designated entity responsible for their management. Additionally, there is a lack of consistent monitoring of the financial stability and potential bankruptcy of contractors to ensure their ability to complete projects. In conclusion, the results above highlight a deficiency in the company's contract risk management practices, as indicated by the composite mean score of 2.9479.

K. Change Control

Table 4.13: Changes and Changes Control Management Practices Survey

K	Changes and Changes Control Management	Mean	SD	Interpretation
1	Are there changes/variations control management system?	3.6667	0.6370	Good

2	Do you process change/variation orders on time?	3.8750	0.6124	Good
3	Do you assess the required information for the varied work properly?	3.8333	0.7020	Good
	Average mean	**3.7917**	**0.6487**	**Good**

Source: Primary data 2024

The findings from Table 4.16 indicate that all aspects of the changes/variations control management exhibit a mean score surpassing 3.7917 in the composite score. This suggests that the company possesses a robust changes/variations control system that effectively evaluates, regulates, and oversees the orders for changes or variations with ample data when initiated by the contractor.

L. Contract Close Out

Table 4.14: Contract Close-out Management Practices Survey

L	Contract Close-Out Management	Mean	SD	Interpretation
1	Do you have proper contract closeout procedures?	3.8750	0.6124	Good
2	Are outstanding issues, claims, or disputes resolved addressed during the closeout process?	3.8333	0.5647	Good
3	Do you issue provisional acceptance certificates during physical work completion on time?	2.7917	0.5090	Uncertain
4	Are defects detected & notified to the contractor on time?	3.9583	0.7506	Good
5	Do you ensure that corrective actions for any defects are completed following provisional acceptance?	2.4167	0.6539	Poor
6	Do you promptly release retentions and process the final payment within the designated time?	2.6667	0.4815	Good
7	Are best practices and lessons learned documented upon Completion of projects?	2.4167	0.6539	Poor
	Average mean	**3.1369**	**0.8953**	**Uncertain**

Source: Primary data 2024

The findings from Table 4.17 indicate that the contract's close-out procedures have received an average score of 3.1369 out of 5, signifying a neutral rating. Some of the specific close-out practices have garnered a minimum mean score of 3.9583, indicating that they are being implemented by the company. These practices encompass having established close-out protocols, resolving any outstanding issues, claims, or disputes, and identifying defects while promptly informing the contractor for timely rectification before closure. However, there are delays in issuing provisional acceptance certificates, retentions, and final payments to the contractor. Furthermore, the survey respondents have highlighted deficiencies in post-provisional acceptance follow-up procedures, as well as in the documentation and retention of lessons learned and best practices from the project.

4.4.2. Qualitative Analysis

The qualitative analysis of the interview data provides further insights into the challenges and opportunities associated with contract management practices at AACRA. The interview responses reinforce many of the observations from the quantitative analysis, highlighting the need for improvements in specific areas.

- **Documentation Gap**: Interviewees highlighted a disconnect between AACRA's documented contract management process and its actual implementation. They noted a lack of consistent adherence to procedures and a need for greater emphasis on practical application.
- **Reactive Approach**: Interviews revealed a reactive approach to contract management, with issues often addressed as they arise rather than proactively mitigating potential risks. This lack of proactive planning and management can lead to delays and cost overruns.
- **Monitoring & Reporting Shortcomings**: The monitoring and reporting system was identified as lacking robustness and effectiveness. Interviewees highlighted the need for a more comprehensive system that consistently evaluates performance and identifies potential problems early on.
- **Contract Closure Challenges**: Interviewees confirmed that contract closeout can be a lengthy and complex process, often plagued by delays related to payment, claims resolution, and documentation. This indicates a need for improved practices in this area, to ensure timely and efficient closure of contracts.

4.5. Determinants of Effective Contract Management

This section of the questionnaire sought to find out the determinants of effective contract management in Addis Ababa City Roads Authority projects using a 5-point Likert Scale ranging from 1=Strongly Disagree; 2=Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree.

Table 4.15: Determinants of Effective Contract Management Survey

	Indicator	**Mean**	**SD**
1	Making appropriate strategic decisions and drafting the right contracts	4.1667	0.4815
2	Implementing effective evaluation procedures	4.3750	0.4945
3	Having a contract management team with the necessary relevant qualifications, skills, knowledge, and experience for the job	4.0833	0.6539
4	Managing contractors' performance well	3.0417	0.6241
5	Formulating a 'win-win' situation for both parties (organization and the contractor)	4.2500	0.5316
6	Ensuring provision for implementing changes (Flexible or adaptable)	4.0000	0.7223
7	Clear description of processes and contract management plans	4.3333	0.5647
8	Parties taking initiative and preventive actions	3.1667	0.5647
9	Having precise definitions of roles	3.9583	0.8065

Source: Primary data 2024

The data presented in Table 4.18 indicates that the majority of the survey participants expressed strong agreement with the key determinants listed in the table and their responses have been arranged as follows:

- Implementing effective evaluation procedures
- Clear description of processes and contract management plans
- Formulating a 'win-win' situation for both parties (organization and the contractor)
- Making appropriate strategic decisions and drafting the right contracts

- Having a contract management team with the necessary relevant qualifications, skills, knowledge, and experience for the job
- Ensuring provision for implementing changes (Flexible or adaptable)
- Having precise definitions of roles
- Parties taking initiative and preventive actions
- Managing contractors' performance well

These findings align with previous studies by Cruz and Marques (2013), Uher & Davenport (2009), and Sanghera (2008), which emphasized the significance of skilled and seasoned professionals, effective evaluation processes, well-defined processes and contract management strategies, precise role definitions, efficient contractor performance management, mutually beneficial agreements, strategic decision-making, appropriate contracts, proactive measures, and flexibility in accommodating changes for successful contract management.

4.6. Challenges Involved in Contract Management Practice

The section of the study aimed at identifying challenges affecting effective contract management practice in Addis Ababa City Roads Authority. This was done using a five-point Likert scale ranging from 1=Strongly Disagree; 2=Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree.

Table 4.16: Challenges Involved in Contract Management Practice Survey

	Indicator	**Mean**	**SD**
1	Unclear project scope hinders effective management practice	4.1250	0.5367
2	Unrealistic timelines and budgets prevent effective contract management practice	4.2917	0.5500
3	Corruption hampers successful contract management implementation	4.5417	0.5090
4	Inflexibility is a setback to proper contract management practice	4.1667	0.4815
5	Conflicts regarding payments prevent successful management practice	4.2917	0.5500
6	Lack of cooperation limits effective management practice	4.0000	0.7223

7	Statutory amendments make it hard for effective contract management implementation	3.5417	0.7790
8	Successful contract management practice can fail due to difficulty in managing data in different locations	3.7917	0.8330
9	Insufficient use of ICT limits proper contract management practice	4.0933	0.7173

Source: Primary data 2024

As per the table above, the majority of the respondents strongly agreed to the following as challenges to effective contract management practice in their organizations: corruption (M=4.5417); conflicts regarding payments (4.2917); unrealistic timeline and budgets (M=4.2917); inflexibility (4.1667); unclear project scope (4.1250); insufficient use of ICT (M=4.0933) and lack of cooperation (M=4.0000); difficulty in managing data in different locations statutory amendments (M=3.7917), and statutory amendments (M=3.5417).

Thus, the study confirms that the most common challenges involved in contract management include corruption, unrealistic budgets and timelines, insufficient ICT, lack of cooperation, inflexibility, payment conflicts, unclear project scope, and statutory amendments (Choy, et al., 2007; Panesar & Markeset, 2008 and CMKN, 2012).

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

The chapter intends to summarize the study findings, present the conclusion, and offer recommendations about the contract management practices in Addis Ababa City Roads Authority.

5.2. Summary of the Research Findings

The research has determined that the organization effectively implements contract management practices to a reasonably satisfactory degree. These practices are divided into 12 categories: pre-award procedures, contract initiation, contract administration team, communication and rapport, quality and compliance, performance oversight and reporting, documentation and record-keeping, financial matters, claims and dispute resolution, contract risk assessment, change control, and contract closure management, totaling 59 practices. Among the 59 practices, the company is observed to carry out 39 practices to varying extents, while 13 practices are uncertain, as reported by respondents. The remaining 7 practices are not fully executed. Therefore, it is accurate to state that only 39 practices are effectively implemented by the company. This indicates that the Addis Ababa City Roads Authority has adopted contract management practices in its procurement processes to improve its overall performance.

Regarding the factors influencing successful contract management, the vast majority of participants expressed a strong consensus on the importance of making well-informed strategic decisions and crafting contracts carefully; utilizing thorough evaluation methods; assembling a contract management team equipped with pertinent skills, credentials, expertise, and experience; monitoring and enhancing contractor performance effectively; establishing mutually beneficial arrangements for all parties involved; facilitating the implementation of changes; outlining processes and contract management strategies clearly; defining roles with precision; and proactively taking steps to prevent issues.

The research also revealed that the majority of the participants strongly affirmed that ambiguous project scope, impractical deadlines and financial plans, corruption, rigidity, payment disputes, lack of collaboration, and inadequate utilization of information and

communication technology impede the successful implementation of contract management within the Addis Ababa City Roads Authority.

5.3. Conclusion

The initial findings of the study (descriptive analysis) indicate that the mean scores for most contract management practices exceed 3.50, suggesting that respondents believe these practices are being implemented by their company's contract management team. However, specific areas require significant attention for complete implementation.

In the Pre-Award Process category, before bidding, not all potential bidders receive briefings on the technical requirements and scope of work for the project. Furthermore, before awarding the contract to the winning bidder, a physical survey is not conducted to verify their technical, managerial, and financial capabilities. Concerning the appointed Contract Management Team, respondents are uncertain if their company regularly evaluates the team's job performance for the designated project site. Within the Communication and Relationship Management practices, respondents are unsure if there is a stakeholders' communication plan in place, as well as clear and effective communication and management of interactions between involved parties. In the realm of Quality Control and Compliance activities, there is no auditing of the Quality Management System (QMS) of the contractor's firm before contract awarding or during project execution to ensure the implementation of a quality system. During Performance Monitoring and Reporting activities, there is no established mechanism for the contract management team to monitor the contractor's resources, quality of work, and relationships to confirm that the contractor's performance meets the required standards. While the company has implemented a Documentation System for contract management, relevant stakeholders do not consistently receive pertinent, precise, and timely information regarding project progress when needed.

Regarding Financial Management, payments are frequently delayed to the contractor despite the completion of all necessary payment processes and certifications before final approval. Furthermore, clients are not advised to consider setting aside contingency funds for potential variations in work or emergencies that may arise during project execution. Penalties are also seldom imposed on defaulting parties, even though penalty provisions are outlined in the contract. In terms of Claims and dispute resolution practices, respondents are unsure if their company supports clients in legal disputes when cases are brought to court for resolution.

Regarding Contract Risk Management, the contract management team lacks a system for assessing contract risks periodically, assigning responsibility, and implementing mechanisms to regularly monitor the contractor's financial status and bankruptcy risk. Regarding Contract Close Out practices, contracts are often not closed promptly due to the following factors such as delayed issuance of provisional acceptance certificates upon completion of work, inadequate follow-up on rectification works after provisional acceptance, and delayed final payment processes and release of retentions. Lastly, a gap highlighted in the study is that the contract management team fails to document lessons learned and best practices from projects to aid in future decision-making.

Furthermore, the majority of respondents in this research strongly agree that effective contract management involves: making appropriate strategic decisions and drafting contracts, using effective evaluation procedures, employing a contract management team with relevant skills, qualifications, knowledge, and experience, effectively managing contractor performance, formulating win-win situations for both parties, implementing change provisions, clearly defining processes and contract management plans, Precisely outlining roles, and taking initiatives and preventive actions. The study also concludes that common challenges in effective contract management at the Addis Ababa City Roads Authority include unclear project scopes, unrealistic timelines and budgets, corruption, inflexibility, payment conflicts, lack of cooperation, and underutilization of ICT.

5.4. Recommendations

In this article, the researcher proposes recommendations for enhancing the management of contracts in construction projects. An imperative factor for the success of construction projects lies in the proficient and effective management of contracts. To achieve this, it is crucial to implement sound contract management practices. Drawing from the study's findings and existing literature, the following practices are suggested for incorporation by the contract management teams within the company to ensure project success.

- Among the 12 categories of contract management practices outlined in this study, the company should prioritize Communication and Relationship Management, Performance Monitoring and Reporting, Documentation and Recording, and Managing Contract Risk activities. These practices hold the most significance and exert a substantial influence on the success of the project (Murat and Hesham, 2020).

- Effective communication and relationship management plays a pivotal role in facilitating smooth and efficient contract management processes. It is essential to maintain open and constructive communication channels, resolve conflicts, and identify issues promptly. This involves transparent communication, sharing pertinent information, and demonstrating professional courtesy towards each other's business (Thomas, 2015).
- Regular and stringent performance monitoring and reporting are essential to ensure that construction activities proceed as planned. Reports should be provided in a timely and accurate manner.
- The contract management team or consultant should establish a system for managing contract risks that involves planning, assessing, quantifying, assigning, and mitigating various potential risks that may arise during construction. Proactively addressing risks helps in cost-saving for both the client and contractor, as well as in averting project delays (Banaitiene and Banaitis, 2012). Depending on the complexity of the construction projects, a risk management body should be instituted or designated to handle risks (PMI). Given the challenges encountered in our country, it is imperative to regularly monitor the financial standing of the contractor, and if necessary, financial reports should be submitted to assess the contractor's susceptibility to potential bankruptcy threats.
- During the bidding process, contract management teams should conduct sessions for potential bidders to provide insights into the nature and scope of work, expected project completion timeline, and brief descriptions of the contractual terms. This will help avoid ambiguities or misunderstandings in the bid proposals submitted by the bidders (John and Arjan, 2014). Before awarding the contract, a thorough assessment of the contractor's technical, managerial, and financial capabilities is essential to ensure the contractor's suitability for the project.
- The contract management team should audit and review the contractor firm to ascertain the implementation of a Quality Management System before awarding the contract and during the construction phase (PMI). This practice encourages and obligates the contractor to uphold quality standards across all work methods, procedures, and activities.
- A prevalent issue in contract management in our country is the habitual delay in payment to contractors for completed work. This practice has become normalized,

leading to persistent grievances from contractors. Timely payment is crucial to prevent unnecessary delays in projects and maintain positive relationships among the involved parties. Therefore, it is imperative for the contract management team, in consultation with the client, to ensure prompt payment to contractors. Alternatively, penalties for late payment should be enforced in accordance with contractual terms and conditions.

- During project execution, numerous work variations may arise due to new client demands, design issues, or unexpected risks necessitating additional financing. Hence, the contract management team or consultant should include adequate contingency funds in the project budget to address such variations or risks. Failure to adhere to these practices may result in project termination, disputes, cost overruns, or delays.
- In the event of disputes, it is advisable to resolve them through negotiations or resort to alternative dispute resolution methods (John and Arjan, 2014).
- Another critical aspect that requires attention in contract management is contract closure. This issue has become commonplace in our country, leading to unnecessary overhead costs and discontent among project stakeholders. Delays in contract closure should be avoided. As per Rendon (2007), it is essential to ensure that all administrative matters, aside from the physical completion of works, are resolved. Designating a formal contract closeout team, implementing procedures, and utilizing a checklist can ensure that all final payments, acceptance certificates, warranties, lessons learned, and best practices are documented.
- This research highlights the contract management practices, gaps, and challenges faced by AACRA in contract management. The company can enhance the practices identified in the study through structured and sustained development initiatives encompassing relevant training and experiences. While most practices can be refined and developed, some may prove challenging due to external factors. It is advisable to establish a documentation system to archive lessons learned and best practices from project contract management, aiding in future project decision-making.
- Furthermore, addressing most challenges faced by the company can be managed by incorporating relevant provisions and terms in the contract and enforcing them appropriately.
- Ultimately, project stakeholders overseeing construction project activities, whether directly or indirectly, should be educated on the significance and impact of implementing effective contract management practices and resolving challenges to

ensure project success. Adhering to these practices will contribute to improved project outcomes and personal success for those involved in project contract management.

5.5. Limitations and Suggestions for Further Study

This study is limited to examining the existing practices and challenges encountered in the contract management of road construction projects overseen by Addis Ababa City Roads Authority in Addis Ababa, Ethiopia. This approach enables an evaluation of the methods employed and the difficulties encountered in contract management. Nevertheless, a more comprehensive study encompassing a variety of industries would be necessary to generate findings that are universally applicable across organizations.

Moreover, the contract management techniques identified in this study may also be of interest to any organization engaged in project-based contracts. Additionally, the researcher proposes that future research could be conducted to corroborate the current findings by implementing a 360° evaluation questionnaire that includes input from both clients and contractors in the assessment process.

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APPENDIX I: QUESTIONNAIRE

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

MA PROGRAM IN PROJECT MANAGEMENT

Introductory Letter

Dear Respondent,

I am an MBA student at Addis Ababa University, School of Commerce. Currently, I am undertaking my research project on "The Practice of Contract Management in Road Construction Projects in Ethiopia: The Case of Addis Ababa City Road Authority Projects".

Attached is the questionnaire for collecting data that will be used in the aforementioned study.

You have been selected as one of the respondents in this study. Therefore, kindly answer the questions herein in order to facilitate the data collection process. The information sought is purely for academic purposes and will be accorded utmost confidentiality. Thank you in advance.

Yours Faithfully,

Kaleb Tilahun.

1. Demographic Characteristics of the respondents and general background

1. Sex:

A. Male ☐ B. Female ☐

2. Age:

A. 21-30 ☐ B. 31-40 ☐ C. 41-50 ☐ D. above 50 ☐

3. Current academic qualification:

A. Ph.D. ☐ C. BA/BSc ☐ E. High School ☐

B. MA/Msc ☐ D. Diploma ☐

If other, please specify----------

4. Position in the organization:

A. Top management ☐

B. Middle management ☐

C. Project Coordinator/officer/facilitator ☐

D. M&E expert/officer ☐

F. Other Expert ☐

5. What is your work experience?

A. less than 5 years ☐ B. 5-10 years ☐ C. 10-15 years ☐

d. More than 15 years ☐

2. Contract Management Practices

How do you rate the degree of contract management practices implemented by your organization in managing contracts? So please indicate genuinely the extent to which you agree

with each of the following contract management practices statements by putting a tick (√) in the appropriate response.

1: *Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree*

	Indicator	1	2	3	4	5
	Pre-Award Process (Bidding and Selecting)					
1	Is a pre-bid conference held to establish a cohesive understanding among all potential bidders regarding the technical specifications and project scope?					
2	Does your organization utilize assessment criteria, evaluation, and a weighting mechanism to assess the proposals submitted by bidders?					
3	Does your assessment center on the project management and technical capabilities of the prospective bidders?					
4	Is the contractor's past performance on previously awarded contracts taken into account when evaluating proposals?					
5	Does your organization perform a pre-award assessment of the prospective contractor to validate the contractor's technical, managerial, and financial capability?					
6	Does your organization offer debriefings to both successful and unsuccessful contractors following the evaluation results?					
	Contract Management Start-Up					
1	Are the standard forms, conditions and terms of the contract clearly understood by both parties prior to signing the contract?					
2	Do you conduct project kick off meeting?					
3	Does the contractor provide plans for work, environmental, and safety regulations?					

4	Do you assess the contractor's personnel and manpower plan?					
5	Do you review the qualifications and expertise of subcontractors?					
6	Do you ensure that the contractor provides contract securities and insurance coverage?					
	Contract Administration Team					
1	Is there a competent contract administration team assigned for contract management?					
2	Have the roles and responsibilities of the team been clearly defined?					
3	Do you conduct regular evaluations of the team's performances?					
	Communication and Relationship Management					
1	Is there a comprehensive communication plan in place for engaging with stakeholders?					
2	Do you properly oversee and manage the communication between the client, the consultant, and the contractor?					
3	Is there timely and proper management for inquiries and concerns brought up by the contractor?					
4	Do you conduct regular and frequent meetings between the parties (the client, the consultant, and the contractor)?					
5	Do you implement clear and effective communication?					
	Quality and Compliance Management					
1	Do you conduct an audit of the contractor's Quality Management System (QMS)?					
2	Do you evaluate the timely issuance of construction materials quality assurance certificates, test reports, and shop drawings?					

3	Do you conduct regular assessments to ensure the quality of the work?					
4	Do you control noncompliance with work and track corrective actions?					
5	Do you manage construction plans and design progress for projects completed by external entities?					
	Performance Monitoring and Reporting Management					
1	Is there a monitoring and reporting system?					
2	Are regular progress reports developed and reported to stakeholders?					
3	Do you report and address major issues on time?					
4	Is there a mechanism to monitor contractor's relationships, resources, and care of work?					
5	Do you inform the contractor of their failure to meet obligations and the proposed schedule for recovery?					
	Document and Record Management					
1	Is there a formal contract management documentation system?					
2	Do you ensure timely documentation through the use of registers?					
3	Are your documentation and records systems supported by the use of information technology?					
4	Do you provide stakeholders with accurate, timely and relevant information when requested?					
	Financial Management					
1	Do you have a well-established financial system for the payment process?					
2	Do you inform the client and certify payable amount on time?					
3	Does the client make payments to the contractor on time?					
4	Do you advise the client for contingency funds?					

5	Is there a provision for penalty payment or compensation in place for delays in payment by the client or delays in work completion by the contractor?					
	Claims and Disputes Resolution Management					
1	Is there a robust claims and dispute resolution system in place?					
2	Do you timely inform and analyze the contractor's claims to the client or vice versa?					
3	Do you negotiate on claims and disputes with the contractor?					
4	Do you provide support to the parties for alternative dispute resolutions mechanisms?					
	Contract Risk Management					
1	Do you have a contract risk management system?					
2	Are contract risks assessed periodically?					
3	Is there a responsible body assigned to manage contract risks					
4	Do you regularly monitor the financial status and risk of bankruptcy of the contractor?					
	Changes and Changes Control Management					
1	Are there changes/variations control management system?					
2	Do you process change/variation orders on time?					
3	Do you assess the required information for the varied work properly?					
	Contract Close-Out Management					
1	Do you have proper contract closeout procedures?					
2	Are outstanding issues, claims, or disputes resolved addressed during the closeout process?					
3	Do you issue provisional acceptance certificates during physical work completion on time?					

4	Are defects detected & notified to the contractor on time?					
5	Do you ensure that corrective actions for any defects are completed following provisional acceptance?					
6	Do you promptly release retentions and process the final payment within the designated time?					
7	Are best practices and lessons learned documented upon Completion of projects?					

3. Determinants of Effective Contract Management

Please indicate by ticking the extent to which you agree with the following statements

Use the following scale:

1=Strongly Disagree; 2=Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree

	Indicator	1	2	3	4	5
1	Appropriate strategic decisions and drafts right contracts are made					
2	There are effective evaluation procedures					
3	The contract management team has the necessary relevant qualifications, skills, knowledge, and experiences for the job					
4	Contractors' performance is managed well					
5	It formulates a 'win-win' situation for both parties (organization and the contractor)					
6	Ensures provision for implementing of changes (Flexible or adaptable)					
7	Clear description of processes and contract management plans					
8	Parties take initiatives and preventive actions					
9	Has precise definition of roles					
10	Others					

4. Challenges Involved in Contract Management Practice.

Please indicate by ticking the extent to which you agree with the following statements

Use the following scale:

1=Strongly Disagree; 2=Disagree; 3=Not Sure; 4=Agree; 5=Strongly Agree

	Indicator	1	2	3	4	5
1	Unclear project scope hinders effective management practice					
2	Unrealistic timelines and budgets prevent effective contract management practice					
3	Corruption hampers successful contract management implementation					
4	Inflexibility is a setback to proper contract management practice					
5	Conflicts regarding payments prevent successful management practice					
6	Lack of cooperation limits effective management practice					
7	Statutory amendments make it hard for effective contract management implementation					
8	Successful contract management practice can fail due to difficulty in managing data in different locations					
9	Insufficient use of ICT limits proper contract management practice					
10	Others					

APPENDIX II: INTERVIEW QUESTIONS

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

MA PROGRAM IN PROJECT MANAGEMENT

First, I would like to thank you for your willingness to respond to my questions. My name is Kaleb Tilahun, I am a Master of Arts student in Project Management at Addis Ababa University School of Commerce. As part of my MA project work, I am studying the project contract management practice in Addis Ababa City Roads Authority projects. This interview is made to have more in-depth on the matter under study.

Thus, I kindly request you to answer all the questions assuring you that all responses will be used only as input for this study.

1. Do you have a standardized/formal documented contract management /process for Projects?
2. How is contract management conducted?
3. What kind of mechanism do you use to monitor and control procurement contract status?
4. When/ how is the contract said to be closed?
5. What are the major challenges have you faced in the contract management process?