



Addis Ababa University

School of Commerce

**THE ROLE OF PROCUREMENT CONTRACT MANAGEMENT IN THE
EFFECTIVENESS OF PROJECT MANAGEMENT FOR ETHIOPIAN
ELECTRIC POWER: THE CASE OF ADDIS NORTH SUBSTATION
REHABILITATION AND UPGRADING PROJECT**

by

Yehualawork Mekonnen Messele : (GSD/0155/06)

Advisor : Berhanu Denu (PhD)

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APPROVAL BY BOARD OF EXAMINERS

_____	_____
Chair Department of Graduate committee	Signature
_____	_____
Advisor	Signature
_____	_____
Internal Examiner	Signature
_____	_____
External Examiner	Signature

Statement of Certification

This is to certify that Yehualawork Mekonnen Messele has carried out this research work on the topic entitled “**The Role of Procurement Contract Management in the Effectiveness of Project Management for Ethiopian Electric Power: The Case of Addis North Substation Rehabilitation and Upgrading Project**”. The work is original in nature and is suitable for submission for the reward of the MA degree in Logistics and Supply Chain Management.

Advisor: Berhanu Denu (PhD) _____

Statement of Declaration

I, Yehualawork Mekonnen Messele, has carried out independently this research work on “**The Role of Procurement Contract Management in the Effectiveness of Project Management for Ethiopian Electric Power: The Case of Addis North Substation Rehabilitation and Upgrading Project**” for partial fulfillment of the requirement for the MA program in Logistics and Supply Chain Management with the guidance and support of the research advisor.

This study is my own work that has not been submitted in any other institution for diploma or degree program.

By: Yehualawork Mekonnen

Signature _____

Date: _____

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LIST OF ABBREVIATIONS

CAPEX - Capital Expenditure

CAR - Capital Approval Request

CIPS - Chattered Institute of Purchasing and Supply

FIDIC- Fédération Internationale des Ingénieurs Conseils (International Federation of Consulting Engineers)

ICC - International Chamber of Commerce

ITC- International Trade Centre

JIT - Just-In-Time

KPI - Key Performance Indicator

MSA - Master Service Agreement

OPEX - Operational Expenditure

PMI - Project Management Institute

PO - Purchase Order

SLA - Service Level Agreement

SSA - Support Services Agreement

TQM - Total Quality Management

Abstract

In today's competitive and hectic global economy effective contract management is paramount for effectiveness of project management to guarantees organization in realizing its business value by successful delivering projects on time and within budget. The aim of this study is to assess the role of procurement contract management in affecting the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project. Research was executed by means of questionnaires and interviews where employees from Procurement, Logistics and Warehousing Department, Substation operation staffs, and Project office staffs were invited to share their experiences of the same. The Literature acknowledges the importance of contract management for effective Project management by citing important terms and conditions for good contracts. They also spell out the basis for supplier selection, remedies for breach of project contracts, service level agreements, contract as a project risks management tool as well as supplier relationship matrix. This research has discovered that there is a very high dependency of effective project management on suppliers' compliance with terms and conditions, suppliers' technical capability and close monitoring of suppliers during project implementation. Therefore, contract management is essential for effective project management. The researcher recommends Ethiopian Electric Power to recruit more experienced and qualified staff for its contract management function, to have e-contract management solution in order to have visibility of its active contracts at every stage of the project lifecycle, to have strong technical supplier evaluation and to secure and enforce penalty clauses for suppliers' breach of project contracts. This is because Ethiopian Electric Power improves its ability to manage its project contracts at practically every stage of project life-cycle, the more it can transform contracting into a project management competency.

*Key words: **Supplier's technical capabilities, Procurement contract management, effective project Management, supplier's compliance and Key Performance Indicator***

CHAPTER ONE

1. INTRODUCTION

This chapter includes back ground of the study, statement of the problem, research questions, research objectives, significance of the study, scope of the study, definition of terms and organization of the research report.

1.1 Background of the study

In the world of business, it is common for an organization to involve suppliers in one way or another to support in providing product to meet its intended requirements. The power industry is one of the main business areas where high level of risk is involved during suppliers' fulfillment of their contractual obligations (Nguyen, 2013). It is a main duty for operating company to make sure suppliers perform their duties safely and timely through appropriate contract management procedures. Effective procurement Contract management has emerged as a crucial function to improve profitability, support compliance and manage risk in the power industry (Prosidian consulting, 2011).The entire procurement team should also be engaged in managing the post award contracting activities. Contract Administration processes and activities such as monitoring and measuring supplier performance, managing contract change process, and managing contract payment process should be integrated with other departmental core processes such as customer service, financial management, risk management, schedule management, and performance management (Hotterbeekx, 2013).

Organizations having established and mature contract management processes are able to generate a great deal in additional savings and have a distinct competitive advantage over their competitors (Rendon, 2007 as cited by Nguyen, 2013). On the other hand, inefficient management of contracts will lead to poor operational control, low customer satisfaction, high risks and unwanted costs (Saxena, 2008 as cited by Nguyen, 2013). On his study Hotterbeekx (2013) developed a maturity model for contract management inclusive of the following category contract management functions: relationship management, performance management and risk management to assess contract management maturity level of the organization.

According to Prosidian Consulting (2011), findings of recent international surveys conducted by supply and demand chain executives on the complexities and risks of project contracts shows that there is a significant loss of money due to ineffective management of project contracts. For instance, research firm Aberdeen Group, has advocated that enterprises lose US\$153 billion each year due to ineffective project contract management. A Green Point Global (2013) reveal that 60-80% of business transactions are governed by agreements or contracts and more than 10% of all executed contracts are lost.

Although there are a lot of other variables which can influence the supplier's performance, this research will focus on the role procurement contract management for the effectiveness of project management and activities which have direct influence on performance outcome to the project deliverables, particularly on risk management, suppliers' selection, procurement contract management team competence and roles, and purchasing-supplier relationship. It has not directly thought to cover the whole phases of procurement process, although some of the activities like procurement contract management plan, contract specifications and requirements, key performance indicators and performance outcomes will also be referred so that to provide better understanding from the reader.

This study assesses the role of procurement contract management in the effectiveness of project management, specifically at Addis North Substation Rehabilitation and Upgrading project and recommendations on how to manage different types of procurement contracts better so that the projects are completed without legal delays and problems.

1.2 Statement of the Problem

The goals of project management are to ensure that organizations invest in the optimal project portfolios and help them realize business value by delivering projects on time and within budget (PMI, 2004). Gaikwad (2011) stressed that effective project management serves as a blueprint to safeguarding company's resources and mitigating risks for realizing productivity and accomplishing predetermined goals. Despite the fact that while Addis North Substation Rehabilitation and Upgrading project spends significant amount of money in its projects, there is a lack of compliance to terms and conditions, inappropriate scope of works as well as high cost and time overruns (IACCM, 2012).

All of these are common expressions and sufficient indicators of lack of robust contract management processes and practices the specific causes of which include poor Supplier selection, lack of key project stakeholder involvement and poor contract execution. These have led to many projects delay and some consultants causing network problems when discharging their roles and no serious actions are taken against respective Suppliers. When asking some key stakeholders, their responses are that many Suppliers do not adhere to the terms and conditions of the contracts, while mention, while Addis North Substation Rehabilitation and Upgrading project is running on very tight schedule on its project, many Suppliers do not deliver materials on time as indicated in the purchase order. This is disastrous and has financial implications in this world of urgency where time is firmly scheduled with specific time slots available for activities. They added that to many Suppliers after sales service is not effective; user trainings offered are inadequate, repair services provision is not effective and online support is very poor especially in emergency cases.

Different studies have discussed the causes for poor contract management for goods including; that contracts were not properly signed in some cases, some contracts lacked important documents such as conditions of contracts, drawings and specifications and some contained non-contract documents such as invitation for bids, liquidated damages were not applied for delayed contracts, and site meetings were not conducted.

Thai, (2003) Furthermore, it is noted that progress report for works were not prepared, extension of time were issued without justifiable analysis, payment certificates were not attached with necessary information such as measurement sheets to justify the quantities paid and in some cases payments were made for works which had not been done by exaggerating the quantities. This initial perception fails to take into account other factors for poor contract management like poor preparation of contract documents, Corruption practices, lack of enough communication between the key players in the implementation of the contract and; lack of practical legal technicalities on managing contracts, disregarding specialization and/or professional practice on the use of skilled personnel in contract management are also factors to consider when discussing about the factors for poor contract management. The reason why this study is being undertaken is to assess the role of procurement contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading project and come up with

recommendations to improve performance of project procurement contracts and make Addis North Substation Rehabilitation and Upgrading project enjoy its competitive and comparative advantages.

1.3 Research Questions

This study seeks answers to questions in broad and specific terms necessary for shaping the direction of the research. To this end, the research questions sat for the problem above are:

1.3.1 General Research Question

In broad terms, this study seeks answers to the following question; what are the roles of procurement contracts management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project?

1.3.2 Specific Research Questions

Specifically, this study addresses the following research questions;

- (i.) How Supplier's compliance with terms and conditions of the contract relate to effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project?
- (ii.) How does a technical capability of Suppliers affect the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project?
- (iii.) How close monitoring of procurement contracts during project implementation correlate to the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project ?

1.4 Research Objectives

The objectives of this study are to obtain answers to the questions and solutions to the problems stated in section 1.2. These are translated in to general and specific objectives as shown below;

1.4.1 General Research Objective

The primary objective of this study is to examine the role of procurement contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project.

1.4.2 Specific Research Objectives

The detailed objectives of this study are;

- (i.) To investigate if Supplier's compliance with terms and conditions of the contract relates to effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project.
- (ii.) To describe whether technical capabilities of Suppliers has effects on the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project
- (iii.) To investigate if close monitoring of procurement contracts during projects implementation correlates to the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project.

1.5 Significance of the Study

Frequently, the contract management phase of the procurement life cycle receives the least attention until problems arise. The importance of this phase is emphasized when we consider where the output of the project occurs. This is true for not only the client, but also for the Supplier, because performance at this stage might have an influence on whether future business will be won or lost. Not only performance for delivering the required goods or services in full, on time with regard to specifications, but also building good relationship with the clients and the added value the project delivers. The reason why this study is significant can be explained in the following aspects;

First, its findings will help enlighten procurement and supplies professionals the need to critically monitor procurement contract management during project execution (contract life-cycle) so as to mitigate risks associated with project delivery.

Second, the findings will help procurement and supply professionals recognize technical capabilities of their current and future Suppliers and acquire more insights as regards to monitoring Suppliers' performances across all procurement contract KPIs.

Third, it will also assist to understand the extent to which Addis North Substation Rehabilitation and Upgrading project Suppliers comply with terms and conditions of project contracts and suggest the way forward to better management of project contracts. Conclusions and recommendations to be drawn from this study will come up with suggestions that will help the company to improve contract management in its project environments more effectively.

1.6 Scope of the Study

This study focused on the primary players in **Procurement, Logistics and Warehousing Department, Substation operation staffs and Project office staffs** at Addis North Substation Rehabilitation and Upgrading Project in Ethiopian Electric Power. The questionnaires were released to Procurement, Logistics and Warehousing Department, **Substation operation staffs and Project office staffs** while the face to face interviews were done on top management team.

1.7 Definitions of key Terms

Contract: Hutchison et al. (2009) defined a contract as an agreement entered in to voluntarily by two or more parties with an intention to create legally enforceable obligation(s). A contract entails voluntary promises between competent parties to do or not to do something which is enforceable by law. A contract may obligate a contracting party before receiving anything from the other side or even after calling the deal off; for example, after the supplier acknowledges the receipt of the purchase order, he is liable to deliver materials based on the delivery terms agreed. The same applies to all parties after contract closures in confidentiality issues where the parties agree not to disclose confidential matters for number of years after the contract closure.

Contract Management: Contract management is a systematic practice for creation, execution, compliance, and analysis of business contracts in order to maximize operational performance, reduce costs, and minimize risks (Aberdeen Group, 2006). A procurement contract is a legally binding agreement between a firm (the buyer) and a Supplier to fulfill a set of agreed terms and conditions. Contract management involves building of good working relationship between the

parties which continues through the contract life- 9 time. One of the key objects of contract management is to obtain goods or services as agreed in the contract and achieve the best value for money through balancing costs against risks and proactively managing the relationship. It also aims at continuous improvement in performance over the contract life time.

Effectiveness: CIPS Australia (2005) defines effectiveness as the extent to which objectives have been met. It is referred to as doing the right thing. That is, to measure effectiveness is simply to compare goals and results. This is the degree to which objectives are achieved and the extent to which targeted problems are solved (www.business dictionary.com).

Procurement: Lyson and Farrington (2006) defined procurement as the process of obtaining goods, works and/or services through buying, borrowing or leasing. It encompasses all activities involved in establishing essential requirements, sourcing practices such as market research and vendor evaluation as well as negotiation of contracts to ensure management of external resources to fulfill organization strategic objectives. Van Weele (2006) defines procurement as obtaining from external sources all goods, services, capabilities and knowledge which are necessary for running, maintaining and managing the company's primary and supporting activities at the most favorable conditions.

Project: Projects differ from types of work. PMI (2004) defines project as a temporary endeavor undertaken to produce a unique product, service or result. These unique and temporary characteristics are the ones determining if a particular endeavor is a project. The temporary nature of projects indicates a definite beginning and definite ending. The end is reached when the project's objectives have been achieved, when the project is terminated, or the need for the project no longer survives. The unique nature of projects means every project creates a specific product, service, or result 10 that differentials it from other products, services, or results. The duration of a project is a finite; can range from a week to several years.

Project Contracts: These are contracts for construction, manufacturing and/or installation of equipment's. These contracts are characterized by having a defined start date and end date, having a defined end result to be achieved and involving a number of planned and interrelated activities (PMI, 2004).

Project Delivery: Project delivery refers to project execution or implementation (Adu, 2004).

Promise and Promisor: As opposed to the promisor who makes the promise to someone, the promisee is the person who has been promised something. For the sake of this study the promisor is a Supplier or supplier while the promisee is the client or purchaser.

Service Level Agreement: A Service Level Agreement is an agreement between client and supplier that specifies, in measurable terms, the services to be furnished by the supplier and what penalties the supplier will pay if s/he cannot meet the committed goals (Lammanna et al., 2003).

Substation: A substation is a part of an electrical generation, transmission, and distribution system. Substations transform voltage from high to low, or the reverse, or perform any of several other important functions.

1.8 Organization of the Study

The study consists of five chapters. Introduction of the study, back ground of the study, statement of the problem, research questions, research objectives, significance of the study, scope of the study and definition of terms discussed in first chapter. Review of literatures in the second chapter. The third chapter holds research methodology, the fourth chapter analysis and present quantitative and qualitative data. The last and the fifth chapter address, summary, conclusion recommendation, and further research.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Theoretical literature review

2.1.1 Pre-requisites for effective procurement contract management

In order for Procurement entities to manage procurement contracts for goods effectively the following factors should be taken into consideration before making any decisions (ITC, 2000):

- i. Preparation of a network of activities in the contract using milestones in order to make sure that they avoid over-listing the activities and excluding the unnecessary ones as the contract must have priorities. The overall resources for contract management are normally constrained and the priority should be on the key areas of time, cost and quality. The contract manager needs to be aware of the relative priority and trade-off between time, cost and quality in the daily decision making.
- ii. Allocation of responsibilities for the activities and deciding who is to take up which role in managing the contract activities. The buyer and supplier should identify the specific individuals within their respective organizations that are to be responsible for each activity. Such selection of individuals should be based on understanding of the skills, qualifications, experience and competences necessary for such activities.
- iii. Establishment of time scales through preparing control mechanisms using Gantt Charts, identifying critical activities and schedule optimization. The main benefit of constructing a Gantt chart is that the critical path can be identified. The critical path consists of all the activities that will result in a delay to the schedule if delayed.
- iv. Determination of performance measurement criteria. This is about taking actions to control deviations from the contract terms. Any deviations or risk of deviations should be identified as soon as possible. The sooner the problems are identified the sooner actions can be taken to solve or prevent them and minimize consequences.

v. Preparation of the contract budget. The detailed budget will provide inputs on supplier payments, administrative costs, man hour cost and contingency allowances. Hence, it will provide a full picture of the total financial provision likely to be required for effective contract management.

2.1.2 Procurement contract formulation and legal framework

Pre-contract procurement activities lay the foundation for effective contract management in the procurement of goods. It is during the proceedings that the supplier to execute the goods will be selected and awarded the contract basing on the criteria set by the procurement entity. Once the contract has been drafted, signed and awarded to the supplier it shall not be altered or amended in any way by both parties unless such alteration or amendments is approved.

In the procurement of goods and its subsequent contract formulation, amongst other things, the terms and conditions of the contract need to be appropriate so as to ensure the best achievable value for money for the procurement entity and fair deal for the supplier. Irrespective of whether the contract is for the provision of minor, medium or large goods, the terms and conditions should clearly indicate the rights and obligations of both parties that focus on a win-win outcome.

Basing on that, the International Federation of Consulting Engineers (“Fédération Internationale des Ingénieurs Conseils”- FIDIC) has provided some of the general and specific terms and conditions that should be included in the procurement contract for the procurement of goods. The terms amongst other may include; technical specifications, performance standards, performance security, payment, delivery/completion date, defect liability period, insurance, inspections, contract amendments, subcontracting, liquidated damages, disputes resolutions, settlement of variations and claims, contract termination and force majeure (Köksal, 2011).

At the end, adherence by both the procurement entity and suppliers to the agreed terms of the contract will result in optimal contract performance, achievement of value for money, timely completion of works and cost effectiveness (RDTL-Ministry of Finance, 2011).

2.1.3 Procurement contract implementation

Procurement of goods is quite different from other kinds of procurement such as for services and works. When the procurement entity procures goods, the focus is on ensuring goods are delivered on time, quality is satisfactory, risks are minimized and cost are minimum. Hence, when implementing and managing procurement contracts for goods, the focus of the procurement entity is always on how they can effectively manage costs, quality, time and risks which might have impact on implementation process and final outcome.

In order to help procurement experts working on different procurement entities to manage the above mentioned aspects (i.e. cost, quality, time and risks) in contracts for procurement of goods, International Trade Centre (ITC) in the year 2000 prepared a manual/guide book on the management of supply contracts. Therefore, during contract implementation, the mentioned aspects basing on ITC guidelines can be managed as follows;

Managing Costs: Costs are effectively managed through the use of contract budget. The contract management team in collaboration with the procurement experts has got the responsibility of ensuring that the costs are properly controlled and managed in accordance with an agreed budget. The agreed budget should consist of the payments to the supplier in accordance with the contract, contingency allowance. Any signs of cost escalations should be dealt with as early as possible because they are going to affect contract financing and performance but also on the other side minimizing the budget is not a good option as it may affect the quality.

Managing Quality: When the contract volume is big such as procurement of medium and large goods; the level of quality risk is high such as when new technology is involved or a new supplier is being used and in construction projects, the purchaser must influence the management of quality. The quality plan is the prime document for managing quality that spells out how the quality performance (i.e., the technical specification) and objectives will be achieved.

In the case of construction project, the quality plan should specifically provide details on how the quality function is organized, and who are the responsible individuals, the quality control checks (e.g., inspection and testing) to be carried out and what are the acceptance criteria for these and measures to be taken for non-conformance/deviations. Also, it has to show the procedures that will be used in managing quality; for example quality control of incoming building materials,

construction procedures, inspection/testing procedures and refurbishment procedures in case of deviations.

Managing Time: Time is effectively managed through the use of contract schedule/ time plan. A schedule that indicates the activities and their completion date is necessary when on time delivery is important. The schedule will allow the organization to identify any slippage or failure to complete an activity on time and take corrective action. The schedule should be developed basing on reasonable understanding of what is involved and how long it will realistically take. However, sometimes activities may not be completed on the desired completion date, in that case, reasons behind should be established and adjustments/corrective measures should be taken effectively without further delays. Also, when establishing work plans and time schedules care should be taken on critical activities that when delayed will severely affect other activities depending on them and consequently delayed completion of the project.

Managing Risk: In contract management it is highly advisable to focus much attention on where the risks are greatest in order to manage them before they affect contract implementation progress. There are a number of common risks that are related to contract management, some of the risks include; schedule risks, cost risks, quality risks, commercial and other risks. These can be effectively managed through the use of risk register that describes all the risks one needs to be aware of during the contract implementation to reflect changes in risk as the contract progresses.

However, the register should include information such as description of the risk, causes of the risk, the stage in the contract when the risk could occur, estimates of the impact on the contract performance in terms of time, cost and quality and the risk management strategy on how the risk is to be prevented or its effects minimized through using insurance, frequent expediting, additional inspection etc. Therefore, a key objective for the management of any contract is to ensure that it continues to achieve value for money over time and it is about the trade-off between quality, time, cost and risk throughout contract implementation.

2.1.4 Procurement contract management activities

Contract management consists of a range of activities that are carried out together to keep the arrangement between customer and provider running smoothly. In the procurement of goods they can be broadly grouped into three areas that include service delivery management, relationship

management and contract administration, (Office of Government Commerce [OGC], 2002). These can be explained as follows;

- i. Delivery management ensures that whatever is ordered is then delivered to the required level of quality and performance as stated in the contract. Delivery management may include checking the nature, quantity and quality of goods supplied on delivery and also, when appropriate, at the time of manufacture, works carried out including conformity with designs and drawings, quality of workmanship and materials, and services performed including checking that required services levels and timescales are met.
- ii. Relationship management keeps the relationship between the two parties open and constructive, with the aim of resolving or easing tensions and identifying potential problems at an early stage, while also identifying opportunities for improvement. Relationships must be wholly professional throughout and must include a professional approach to managing issues and dispute resolution.
- iii. Contract administration handles the formal governance of the contract and any permitted changes to documentation during the life of the contract. This area of contract management ensures that the everyday aspects of making the contract run effectively and efficiently are taken care of.

All three areas must be managed successfully if the arrangement is to be a success, that is, if the service is to be delivered as agreed, the formal governance properly handled, and the relationship between customer and provider maintained. Although possibly handled by different figures or departments within the customer organization, the various areas of contract management should not be separated from each other, but form an integrated approach to managing service delivery, relationship and contract together. In addition, the arrangement must be flexible enough to accommodate change, and the process of change must be prepared for and managed. A key factor in all these areas is intelligent customer capability: the knowledge of both the customer's and the provider's business, the service being provided, and the contract itself.

2.1.5 Effective contract administration and management

Increasingly, public sector organizations are moving away from traditional formal methods of contract management (which tended to keep the provider at arm's length and can become

adversarial) and towards building constructive relationships with providers especially in the procurement of goods. The management of such a contract requires a range of skills, knowledge and resources for both the procurement entity and the provider.

Contract administration is concerned with the mechanics of the relationship between the customer and the provider, the implementation of procedures defining the interface between them, and the smooth operation of routine administrative and clerical functions. On the other side, effective contract management goes much further than ensuring that the agreed terms of the contract are being met – this is a vital step, but only the first of many (ANAO, 2007).

No matter what the scope of the contract, there will always be some tensions between the different perspectives of customer and provider. Contract management is about resolving or easing such tensions to build a relationship with the provider based on mutual understanding, trust, open communications and benefits to both customer and provider a ‘win/win’ relationship. Hence, effective contract administration and management is defined as existing when the arrangements for service delivery continue to be satisfactory to both customer and provider, expected business benefits and value for money are being realized, the provider is co-operative and responsive, the customer knows its obligations under the contract, disputes are rare and there are no surprises for either party (ANAO, 2007).

2.1.6 Theory application

The study made use of the Transaction Cost Analysis (TCA) theory focusing on managing contracts (in terms of costs, quality and time) with the assumption that procurement entities try to manage effectively their procurement contracts because of ex ante (before the contract) and ex post (after the contract) uncertainties that may happen and affect the harmonious implementation or termination of the contract (Rindfleisch, 1997). Also on the other side it is due to the assumption that there is opportunism in peoples’ mind that once given the opportunity those who are concerned with contract implementation and management will not do what was agreed or expected between the parties.

Bartle (2002) argued that there are certain concepts which are central in the application of transaction cost theory in Government Procurement. These include the following:

a) **Decision-makers** are assumed to behave in a way consistent with bounded rationality, in that they consider a restricted range of alternatives but in a rational way. Also they may behave opportunistically in some situations. In making such a decision, they weigh the costs and benefits of defaulting from the expected behavior.

b) **Transactions may be affected by uncertainty.** Opportunities for opportunistic behavior serve as one of the main modes of analysis in this area. This makes it possible for public financial managers, their suppliers, governing bodies, or other actors to face uncertain situations in their transactions. The source of this uncertainty may be either opportunistic behavior of the individuals or an uncertain environment.

c) **Information** may not be distributed equally. Where one party to a transaction has more or better information than the other, again the possibility of opportunistic behavior presents itself. Parties might incur costs to gather additional information, or may proceed into the transaction hoping for the best. Information problems are clearly more acute when the parties involved have low trust for each other.

d) **Asset specificity** is a common issue in this theoretical framework. If an asset is by its nature tied to a specific service, then it is vulnerable to the “hold up” problem where one party in a contract might exploit the other party’s vulnerability.

Hence, effective monitoring and administration of the contract is very important in order to ensure that parties protect themselves from uncertainties, irrational decisions and opportunistic behaviors and at the end there is successful contract management that guarantees the achievement of effective project management by the respective procurement entity.

2.2 Empirical literature review

The office of the CAG (2012), in assessing the adequacy of procurement contracts management the financial year 2010/11 found out that average level of compliance for contracts management was 64% for Ministries, Departments and Agencies.

Generally, the weaknesses included improper preparation of contracts, some of the contracts lacked important contract documents such as conditions of contract, drawings and specifications,

liquidated damages were not applied for delayed contracts and site meetings were not conducted for most of the reviewed contracts.

Also there were no adequate quality assurance and control plans, completed works were not tested to ascertain whether they have attained the specifications as provided in the contract documents, progress reports for works contracts were not prepared, site supervision reports were not prepared, extension of time were issued without justifiable analysis and without following appropriate procedures.

Furthermore, payment certificates were not attached with necessary information such as measurement sheets and working/ take-off sheets to justify the quantities paid, in some cases payments were made for works which have not been done by exaggerating the quantities and goods inspection and acceptance committees were not appointed to ascertain the quality and quantity of the supplied goods.

In response to the identified weaknesses procurement entities have been at pointing at the absence of adequate and capable staff to be the major reason behind such outcomes however, Wami (2009) revealed that, presence of adequate and capable staffs for contract management does not necessarily warrant effective management of contracts. He pointed out that proper monitoring system and positive staff attitudes are crucial for the success of the contract. Also, factors such as payment delays, ineffective preparation of procurement contract plan, weakness in project design and low staff performance due to negative working spirit/attitudes were found to be affecting contract management practices in public sectors and proper measures have to be taken in order to improve contract management practices.

On the other perspective, Mitambo (2009) argued that contract management is not given much of the deserved attention as it happens that some of the contracts ended without proper approval or endorsement of the relevant authorities. The approach for management is also associated with unapproved variation of works, poor quality of products together with late deliveries, there is no clear understanding to who is responsible for management of procurement contracts.

Apart from that, some of the major weaknesses in contract management have been caused by lack of planned and coordinated training and development programs, non adherence to the terms and conditions of the contracts, ineffective use of technology in the area of project management,

lack of good project planning resulting to unnecessary changes of scope or specification and design, lack of carrying out post-implementation evaluation of completed contracts, (Hanga, 2008).

The outcome of the observed poor practices in management of procurement contract is non-achievement of value for money, loss of public funds or organization financial resources as it has been observed by Mshana (2007). Hence, ongoing and post contract award activities have to be closely monitored and controlled to enhance procurement contract management especially during defect liability period where by defects identified by the consultants/engineers or users have to be rectified by contractors and liquidated damaged be charged for late deliveries as agreed in the contract.

2.3 Research Gap

Despite attracting great attention from practitioners, academicians and researchers, the role of contract management in the effectiveness of project management specifically at Ethiopian Electric Power has not been addressed. We can see from abroad and Ethiopia cases that majority of the studies focuses on value for money instead of cost effectiveness as in private sectors where majority have limited funds to spend on projects. Moreover, the studies are smoothly practicable in developed countries where technologies are high and level of bureaucracy is low for practicing TQM and JIT philosophies with the aim to ensure quality inputs and zero lead time. This paper assesses the role of contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project and in order to optimize the existing as well as adding value to upcoming projects

2.4 Conceptual framework

This is a set of ideas (sort of map) used to structure the research. According to educational researcher Smyth (2004), the conceptual framework is structured from a set of broad ideas and theories that help a researcher properly identify the problems, frame research questions and find relevant literatures. The conceptual framework assisted the researcher to clarify his research question and objectives as well as in data collection and analysis. Fig 2.4 depicts the conceptual framework of this study.

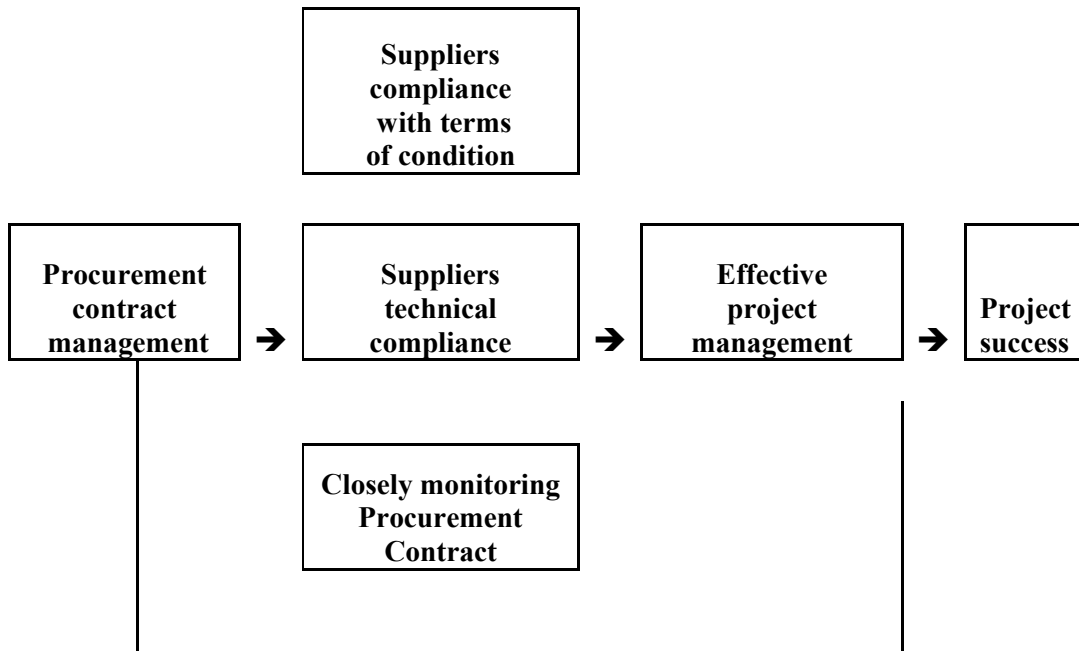


Figure 2-1: Conceptual Framework

Source: Researcher's idea (2018)

While the outcome/dependent variable of this study is the project success, independent variables used to control the outcome variable are supplier's compliance with terms and conditions of the contract, supplier's technical capability and closely monitoring of procurement contracts. Mediating variable of the study is the effective project management. It can, from figure 2.4 be said that project success depends on effective project management which in turn depends on supplier's compliance with terms and conditions of the contracts, supplier's technical capability as well as close monitoring of project contracts.

That is. "Independent variables → mediating variable → dependent variable".

2.5 Chapter Summary

This chapter presents the theoretical, empirical literature of concepts and conceptual framework relating to the problem under study. The theoretical part covered pre-requisites for effective procurement contract management procurement contract formulation and legal framework, procurement contract implementation, procurement contract management activities, effective contract administration and management and lastly theory application. The empirical part explained different papers relating to the study and established the research gap while the last

part of conceptual framework established and illustrated the relationship between main variables of the study in terms of independent and dependent variables.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1 Research Approach

There are three types of research approach; the first one is Qualitative research which involves studies that do not attempt to quantify their results through statistical summary or analysis. In a way it seeks to describe various aspects about behavior and other factors studied in the social sciences and humanities. In qualitative research data are often in the form of descriptions, not numbers. The other one is Quantitative research which engages in systematic and scientific investigation of quantitative properties and phenomena and their relationships. The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to natural phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of an attribute (Abiy et al., 2009). The third one is mixed which consisted of both qualitative and quantitative approach. Regarding this particular research quantitative research approach were employed due to the fact that it involved factor analysis, and other quantitative method of analysis.

3.2 Research Design

This research was employed non experimental casual research design which involves studying naturally occurring variation in the dependent and independent variables, without any intervention by the researchers. Causality refers to the relationship between events where one set of events (the effects) is a direct consequence of another set of events (the causes). Causal inference is the process by which one can use data to make claims about causal relationships. Non experimental casual research designs can be either cross-sectional or longitudinal.

This study is a cross-sectional survey research since all data are collected at one point in time. Surveys are useful in targeting very specific populations, identifying characteristics of a population from a small group of individuals; making standardized questions measurement more precise by enforcing uniform definitions on the participants, thereby obtaining high reliability more easily; and survey data are easily quantifiable and are responsive to different regression analysis. With the survey method, it is hoped that the findings from the sample customers could be generalized into a large target population (Babbie, 1990).

3.3 Population and Sampling

3.3.1 Sample Size

The sample is simply a subset of a population. According to Mugenda and Mugenda (2003), researcher may use 50 percent of the target population to represent the characteristics of the entire population. For the sake of this study, a sample size of 50 employees were drawn from target population to represent the characteristics of the entire population; this sample included 50 employees from Procurement, Logistics and Warehousing Department, Substation operation staffs and Project office staffs.

3.3.2 Sampling Techniques

Sample is a portion of a population or universe. The sample was drawn by using purposive or judgmental sampling technique and random sampling technique. Under purposive/judgmental sampling technique, the researcher selected those who were knowledgeable and able to deliver the required data. The researcher deliberately selected the ones with necessary, reliable and relevant information that suited the purpose of the study. These included Procurement, Logistics and Warehousing Department, Substation Operation Staffs and Project Office Staffs.. Random sampling technique was used to select members of user departments and heads of departments (i.e., those who are not members of tender board) whereby respondents were selected randomly from the list of employees in the respective department through picking the 3rd (i.e., the nth) employee after the first name selection. Each respondent had equal chance of being selected.

3.4 Data Collection

3.4.1 Sources of Data

Generally, there are two types of data, qualitative and quantitative. As discussed by Creswell (2014) mixed methods involve the collection and “mixing” or integration of both quantitative and qualitative data in a study.

Data can be gathered from both primary and secondary sources. Secondary data include both quantitative and qualitative data, and they are used principally in both descriptive and explanatory research. Secondary data are usually collected from journals, existing reports, books, and statistics by government agencies and authorities (Saunders, et al., 2009). The secondary data for this particular study was collected from project report and Contract document. The secondary data will help the student researcher as specific reference and explore different construct, models and theories important to this study.

On the other hand, there are several methods of collecting primary data, particularly in surveys and descriptive researches. Important ones are: observation, interview, questionnaires, depth interviews, and content analysis (Kothari, 2004).

Moreover, in this thesis, with the aim to explore the research question, the researcher will use both primary and secondary data collection. According to Hollensen (2007) primary data can be defined as “information that is collected first-hand, generated by original research tailor-made to answer specific current research questions”. And secondary data can be defined as “information that has already been collected for other purposes and thus is readily available”.

In conducting this study, the researcher was collected data from both primary and secondary sources. While secondary data was collected from contract records, raw data was collected from Procurement, Logistics and Warehousing staff and Substation operation staffs and project office staffs. The responses and opinions shall be collected, analyzed and assembled comprehensively.

3.4.2 Data Collection Instruments

Research includes a wide range of methods for obtaining data. When the research involves the opinions or experiences of individuals, there were two common methods implemented these were interviews and questionnaires. In this study, the researcher was used questionnaires, interviews and documentary review as major instruments for data collection.

Questionnaires are general term to include all techniques of data collection in which each person was asked to respond to the same set of questions in a predetermined order (Saunders, 2009). In this study questionnaires were both open and close-ended which were prepared and distributed to **Procurement, logistics and warehousing department and substation operation staffs and project office staffs**. The researcher was adopted this method because large amount of information shall be collected in a short period of time and in a relatively cost effective way and also easily kept anonymous.

Interview is a systematic way of talking and listening to people to collect data as well as to gain knowledge from individuals. The interview was made after the questionnaire has been fully collected and analyzed so the interview was designed to in order to support and identify answers on the results of the questionnaire. The interview was held specifically with the Project Manager, Procurement Manager, Substation operation manager, Transport Manager, Warehouse Manager and Logistics Manager. This method provided a room for clarification to both the researcher and respondents, it guaranteed a good return rate, and provided more information in detail. It also helps the researcher reduce time in his data collection process.

Documentary Review: The researcher used this method to review various documents relating contract management including contract documents, site inspection reports, variation orders and non-confidential contract audit reports. This was useful for finding secondary data in order to answer research questions.

3.5 Data Processing and Analysis

Quantitative data was collected with questionnaires and qualitative data was collected with interviews and processed and analyzed. Quantitative data was processed, analyzed and presented in tables, bar charts, graphs and other tools. The quantitative aspects shall be supported by qualitative analysis and presentation of the opinions and views raised by research respondents. In addition to this the data was analyzed by correlation to investigate correlation between independent and dependent variables and also were used Regression analysis to investigate relationships between variables to ascertain the casual effect of one variable upon another.

3.6 Reliability and Validity of Data

Reliability

To ensure dependable, trustworthy, genuine, authentic and reputable data, the researcher was used research instruments to collect data from reliable sources only. This is done by using purposive sampling to ensure that research instruments were only administered to individuals who possess the trait of researcher's interest.

Validity

To ensure that the data collection instruments allow the researcher to hit "the bull's eye" of his research objectives, the researcher ensured that data were from the right source and were collected at the right time in order to ensure accuracy to guarantee the correct results. The researcher also analyzed the data collected to ensure its accuracy, adequate and suitable to answer the research questions.

3.7 Ethical Consideration

Ethics is becoming an increasingly prominent issue for all researchers. Researchers are encouraged to employ knowledge of research ethics in practice. Ethical issues were prominent throughout this research process, including during the data collection, during the analysis and writing up of the final report.

The researcher was clarifying to the respondents about the objectives of the study and explains that the information was used only for research and academic purposes. During conducting data collection, both honesty and respect for the rights of the respondents was in place. Again, the researcher was respecting the rights to anonymity, confidentiality and informed consent of the respondents. The researcher was request the consent of the respondents to conduct the research study with official letter.

CHAPTER FOUR

4. DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

In this chapter the researcher attempted to make assessment of the role of Procurement contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project by determining if supplier's compliance with terms and conditions of the contract, technical capabilities of suppliers and monitoring of procurement contracts during projects implementation relate to effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project.

The results gathered from primary data through questionnaires and interviews and secondary data from project report and Contract document in order to collect more reliable data that will provide justification to the study problem. The questionnaires that were gathered from Procurement, Logistics and Warehousing Department, Substation operation staffs, and Project office staffs are analyzed. And the data gathered through interview, used in the discussion of the questionnaires result. The first part of the chapter discussed about the distributed and returned questionnaires. The second part is all about the responses received, the demographic profile of the study sample, has been described using descriptive statistics.

4.2 Quantitative Data Analysis

4.2.1 Data Cleaning and Screening

Before the data analysis, data cleaning and screening has been done. The analysis of the data collected from the sample population was screened for missing values. In addition, extreme values were checked. The minimum and maximum values were, a five point Likert-scale questions found 1 up to 5 respectively. Only complete questionnaires were considered for the data analysis. Out of the total 50 questionnaires distributed, only 38 (76%) were complete and used for the data analysis. Table 4.1 summarize about the distributed, returned and usable questioners.

Table 4-1: Over all response rate

Sample	Number	Percent
Total number of questionnaires distributed	50	100%
Returned questioners	40	80%
Unreturned questioners	10	20%
Incomplete questioners	2	100%
Total usable questioners	38	76%

Source: Survey findings (2018)

4.2.2 Reliability Analysis

In order to test the internal consistency of variables in the research instrument Cronbach's alpha coefficient was calculated. As Zikmund & Carr (2010) state scales with coefficient alpha between 0.6 and 0.7 indicates fair reliability. Thus, for this study, a Cronbach 's Alpha score of .60 or higher is considered adequate to determine reliability. The reliability in this study as assessed by coefficient alpha, was found to be 0.844 (table 4.2) is indication of acceptability of the scale for further analysis.

Table 4-2: Reliability Statistics for both independent and dependent variables

	Cronbach's alpha coefficient	Number of Items
Suppliers compliance with terms of condition	.808	7
Suppliers technical compliance	.812	3
Closely monitoring Procurement Contract	.852	3
Project success	.721	4
Over all reliability	.884	17

Source: Survey findings (2018)

4.2.3 Descriptive Analysis of Demographic Profile of Respondents

Before starting the analysis of the data some background information such as demographic data, is useful in order to make the analysis more meaningful for the readers. The purpose of the demographic analysis in this research is to describe the characteristics of the sample such as the number of respondents, proportion of males and females in the sample, range of age, income, and education level. Each frequency distribution of demographic variables is presented below.

Table 4-3: Profile of Respondents

Variables		Total Respondents	
		Frequency	Percentage
Age (in years)	18-25	1	2.6
	26-35	10	26.3
	36-44	15	39.5
	45-and above	12	31.6
	Total	38	100
Gender	Male	22	57.9
	Female	16	42.1
	Total	38	100
Education	Primary School Education	0	0
	Secondary school Education	0	0
	Diploma	0	0
	First Degree	28	73.7
	Masters and Above	10	26.3
	Total	38	100
Monthly Income (in ETB)	5000-10000	13	34.2
	10001-15000	15	39.5
	15001 and above	10	26.3
	Total	38	100

Table 4.3 shows the demographic profile of 38 respondents. In terms of gender, respondents were roughly proportionate between male and female, even though the numbers of male respondents are a bit higher (female 42.1. %, male 57.9%). Regarding the age of respondents, the sample population is largely dominated by the age group of 36-44 (39.5%) followed by the group within the age group of 45-and above (31.6%). This implies that most of the sample respondents are older and at the middle age category. The rest of the respondents consists, (2.6 %) with the age of 18-25.

The largest group of the population comprises first-degree holders, which is 73.7. % of the total respondents, followed by Masters and above holders which comprise of 26.3% but there were no workers under degree holder. This shows that most of the respondents were degree and above and all are educated. The majority of respondents earned from ETB 10,001-15,000 (39.5%) and followed by those respondents who earn from ETB 5,000-10,000 who account 34.2% the rest 26.3% were earn ETB 15,001 and above.

4.2.4 Descriptive Analysis of questionnaires and interviews

4.2.4.1 Contract Management Recognized as Important Function

Respondents were asked to give their opinion on the Significance of Contract Management function. The findings are presented in the table 4.4

Table 4-4: Contract Management Recognized as Important Function

Recognized as significant	Frequency	Percent	Gross Percentage
Very important	33	86.84	100
important	5	13.16	
Moderately important	0	0	0
Of little importance	0	0	
Unimportant	0	0	
Total	38	100	100

Source: Find data (2018)

From table 4.10 we see that, 33 respondents (86.8% of respondents) recognized Contract Management as a very important function in the organization, 5 respondents (13.2% of respondents) recognized it as important while none of the respondents and interviewees recognized it as unimportant or of moderate or little unimportant function in the organization. These findings justify that contract management function is of exceeding importance at Ethiopian Electric Power.

Contracts documents reviewed showed that appointed contractors submitted the required performance security/guarantee as required by the Ethiopian Electric Power either in the form of bank guarantee or insurance bond. The aim of requirement of submission of performance security/guarantee by the Ethiopian Electric Power is done in order to protect its project against contractor poor performance.

Once the contracts were finished, inspections were carried out and contractors who have performed to the required performance standard were given certificate of completion. The certificates were used to claim final payments and reimbursement of the performance bond or guarantee from the Ethiopian Electric Power. Normally, performance bond is not supposed to be returned to the contractor until the contract is completed satisfactorily in terms of quality and other performance objectives.

Hence, when the performance was good the Ethiopian Electric Power returned the whole amount to the contractors and if not satisfactory some amount was retained for compensation for the poor performance as required by the terms and conditions.

4.2.4.2 Respondents' Experience on Disputes

The researcher was curious to know whether or not respondents have experienced any disputes with Addis North Substation Rehabilitation and Upgrading Project's suppliers, causes of those disputes and measures taken to resolve them. Table 4.5 below depicts the respondents' response.

Table 4-5: Respondents Experience on Disputes

Response	Frequency	Percentage	Causes of disputes	Measures taken to resolve disputes
Yes	13	34.21	1.Late delivery 2.Poor quality of installation works 3.Poor specifications 4.Technical incapability	1. Cancellation of POs and awarding the tender to the second best award
No	25	65.79		
Total	38	100		

Source: Find data (2018)

The numerical part of table 4.5 can be alternatively shown in the bar chart as in figure 4.2

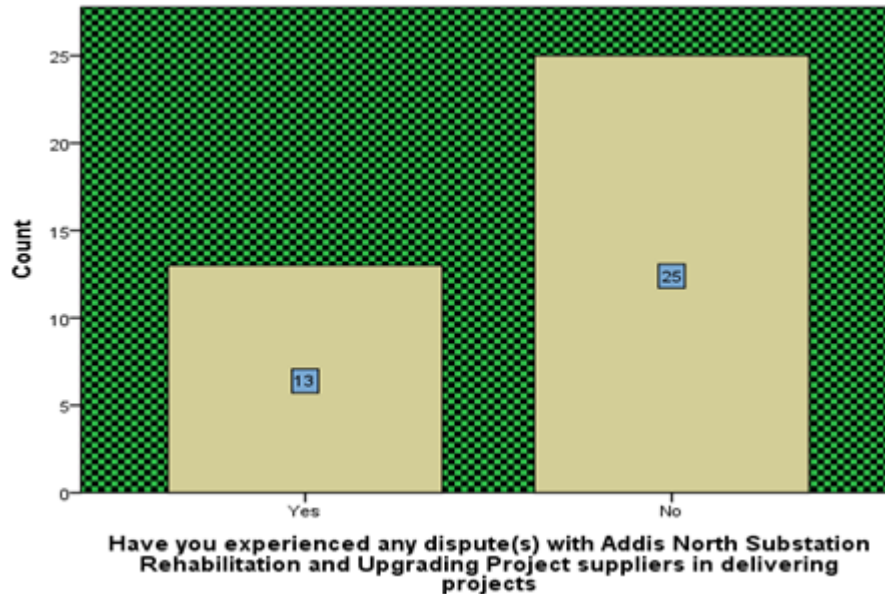


Figure 4-1: Respondents Experience on Disputes

Table 4.5 outlines respondents' experiences on project disputes at Addis North Substation Rehabilitation and Upgrading Project. Of all respondents 13(34.2% of respondents) have experienced disputes related to projects where as 25 (65.8% of respondents) have not. This infers that at Addis North Substation Rehabilitation and Upgrading Project, disputes are of significant amount.

4.2.4.3 Visibility of Project Contracts

Because of suppliers' problems encountered during project execution, researcher wanted to know if there is a visibility of project contracts at Addis North Substation Rehabilitation and Upgrading Project and measures taken by management to ensure consistent contract visibility. Their responses are shown in table 4.6

Table 4-6: Respondents View on Visibility of Project Contracts

Response	Frequency	Gross percentage	Measures taken
Yes	13	34.21	1. Engaging consultant for one year 2. Employing new specialist for contract database 3. Designing up to date contract summary
No	19	50	
I don't know	6	15.79	
Total	38	100	

Source: Find Data (2018)

Table 4.6 reveals respondents' view on visibility of project contracts at Addis North Substation Rehabilitation and Upgrading Project. 13 respondents (34.21%) of respondents agreed that there is contract visibility whereas 19 respondents (50%) were in view that Addis North Substation Rehabilitation and Upgrading Project has no visibility of its contracts. 6 respondents (15.79%) had no idea regarding this question. The results suggest that Addis North Substation Rehabilitation and Upgrading Project have no visibility of its contract processes.

4.2.4.4 Staffing Adequacy in Contract Management Function

Researcher wanted to know if the function is properly staffed and if not the way forward to empower this crucial function. Table 4.7 below depicts respondents' view of the same.

Table 4-7: Respondents' View on Staffing of Contract Management Function

Response	Frequency	Gross percentage	Measures taken
Yes	10	26.32	1. Engaging consultant for one year
No	28	73.68	
I don't know	0	0	2. Plan to employ new staff
Total	38	100	3. Automating contract database

Source: Find data (2018)

As per Table 4.7, of all respondents 10 (26.3% of respondents) were in opinion that contract management staff are adequate while 28 (73.7% of respondents) were in opposing view that the function has staff inadequacy. The results from table 4.7 predict that there is no staff adequacy at Addis North Substation Rehabilitation and Upgrading Project contract management function.

4.2.4.5 Penalty Clauses Enforcement for Breach of Project Contracts

Respondents were asked to give their opinion on the enforcement of penalty clause for breach of project contracts and table 4.8 below represents respondents' opinion.

Table 4-8: Penalty Clause Enforcement for Breach of Project Contracts

Response	Frequency	Percentage	Discharging the penalty
Penalty clause enforced	5	13.16	1. Counter offers
Penalty clause not enforced	18	47.37	
Don't know	15	39.47	
Total	38	100	

Source: Field Data (2018)

It can, from table 4.8, be declared that 15 respondents (39.5% of respondents) have no idea about enforcement of penalty clause for breach of project contracts. Five respondents (13.2% of respondents) narrated that penalty clause is enforced while 18 respondents (47.3% of respondent) reported that the clause is not enforced upon breach of project contracts. The results suggest that little attention is paid to enforcement of penalty clause at Addis North Substation Rehabilitation and Upgrading Project.

4.2.4.6 Suppliers' Delivery Performance

This part was special to ten (10) primary project stakeholders. Interviewees were requested to give their opinion on Addis North Substation Rehabilitation and Upgrading Project's delivery performance and table 4.9 reveals their responses.

Table 4-9: Respondents' View on Suppliers' Delivery Performance

Response	Frequency	Percentage	Notification to responsible Procurement/contract specialists.
Late delivery	4	40	Yes
On time delivery	6	60	N/A
Total	10	100	N/A

Source: Field Data (2018)

Primary project stakeholders had different view on suppliers' delivery performance. Four respondents (40% of interviewees) were in opinion that suppliers do not deliver materials on time whereas the remaining 6 (60%of interviewees) believed that Addis North Substation Rehabilitation and Upgrading Project's suppliers observe delivery schedules as per the project contracts. This can be generalized that delivery performance of Addis North Substation Rehabilitation and Upgrading Project's suppliers was not of satisfactory.

However, after reviewing specific contract files in the project office it was revealed that some contracts are delayed due to technical reasons in terms of specifications and financial aspects which mandated those contracts to be delayed. Therefore, these aspects warranted the contracts to be extended in order to guarantee better results. Whenever those contracts were extended proper procedures were followed to seek approval from appropriate authority. This shows that it is due to these extensions of time in some contracts that made users to disagree on the concept that contracts are completed on time.

4.2.4.7 Effectiveness of Technical Evaluation of Suppliers

Respondents were asked to give their opinion on how technically are suppliers evaluated at Addis North Substation Rehabilitation and Upgrading Project. Table 4.10 below reveals respondents' view on the same.

Table 4-10: Effectiveness of Technical Evaluation of Suppliers

Respondents' opinion	Frequency	Percentage	Gross Percentage
Strongly Agree	5	13.16	47.37
Agree	13	34.21	
Neither Agree nor Disagree	0	0	0
Disagree	20	52.63	52.63
Strongly Disagree	0	0	
Total	38	100	100

Source: Field Data (2018)

Required was to evaluate the effectiveness of technical evaluation of supplier and of all respondents 18 (47.4 % of respondents) agreed that Addis North Substation Rehabilitation and Upgrading Project suppliers are effectively evaluated while 20 (52.6% of respondents) claimed that Addis North Substation Rehabilitation and Upgrading Project suppliers are not effectively evaluated. The results imply that there is inefficient supplier evaluation at Addis North Substation Rehabilitation and Upgrading Project. To overcome this issue, the suppliers to be well understood the value of money and time. The supplier needs to deliver materials at right time, right quality and quantity as well as at right place. Doing this will make the projects to be well organized and well executed. Failure to do so will make bad impressions to customers etc.

4.2.4.8 Risks Associated With Poor Management of Project Contracts

Researcher wanted to know the risks associated with poor management of project contracts in power environments, specifically at Addis North Substation Rehabilitation and Upgrading Project. The following were respondents' suggestions;

- (i.) Project management uncertainty
- (ii.) Contractor relationship risks
- (iii.) Poor quality of works or services

- (iv.) Late deliveries
- (v.) Termination penalties especially when the contract is in auto prolongation mode and there is no exit clause
- (vi.) Conflicts
- (vii.) Loss of revenue and goodwill

4.2.4.9 Suppliers' Compliance with Terms and Conditions of the Project Contracts

Recall that the first specific objective of the study was specifically to determine if supplier's compliance with terms and conditions of the contract relates to effectiveness of project management. Table 4.11 presents the findings in the context of the study objectives.

Table 4-11: Suppliers' compliance with terms and conditions of the contracts

Extent of dependency	Frequency	Percentage	Gross Percentage
Strongly Agree	22	57.89	92.10
Agree	13	34.21	
Neither Agree nor Disagree	3	7.90	7.90
Disagree	0	0	0
Strongly Disagree	0	0	
Total	38	100	100

Source: Field Data (2018)

As shown in table 4.11, thirty five respondents (92.1% of respondents) agreed that effective project management depends on suppliers' compliance with terms and conditions of the contracts while three respondents (7.9% of respondents) neither agreed nor disagreed. No respondent (strongly) agreed that effective project management does not depend on suppliers' compliance with terms and conditions of the contracts at Addis North Substation Rehabilitation and Upgrading Project. These results imply that effective project management strongly correlated to effective management of project contracts.

4.2.4.10 Suppliers' Technical Capability and Effective Project Management

Recall that the second specific objective of the study was to determine whether technical capabilities of suppliers reveal the effectiveness of project management. Table 4.12 depicts the extent to which respondents agree or disagree on the matter.

Table 4-12: Suppliers' Technical Capability and Effective Project Management

Extent of dependency	Frequency	Percentage	Gross
Strongly agree	29	76.32	94.74
Agree	7	18.42	
Neither Agree nor Disagree	2	05.26	05.26
Disagree	0	0	0
Strongly Disagree	0	0	
Total	38	100	100

Source: Field Data (2018)

Table 4.12 reveals that 36 respondents (94.7% of respondents) agreed that effective project management depends on suppliers' technical capability while 2 respondents (5.3% of respondents) neither agreed nor disagreed. No respondent (strongly) agreed that effective project management does not depend on suppliers' technical capability. This implies that effective project management depends on effective management of project contracts.

4.2.4.11 Close Monitoring of Procurement Contracts during Project Implementation

Recall that the third objective of this research study was specifically to determine if monitoring of procurement contracts during projects implementation correlates to the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project. Table 4.13 below offers respondents' opinion for the same.

Table 4-13: Close Monitoring of Procurement Contracts and Effective Project Management

Extent of dependency	Frequency	Percentage	Gross
Strongly agree	8	21.05	52.63
Agree	12	31.58	
Neither Agree nor Disagree	5	13.16	13.16
Disagree	13	34.21	34.21
Strongly Disagree	0	0	
Total	38	100	100

Source: Field Data (2018)

From table 4.13, it can be said that 20 respondents (52.6 % of respondents) agree that effective project management depends on close monitoring of project contracts while 13 respondents (34.2% of respondents) argue that effective project management has no relationship with close monitoring of project contracts. Five respondents (13.2% of respondents) neither agree nor disagree that effective project management depends on close monitoring of project contracts. These results infer that effective project management depends largely on close monitoring of project contracts during project implementation.

4.2.4.12 Cost Transparent for not Overcharging of Services of Projects Performance

Respondents were asked to give their opinion on the costs transparent for overcharging of services of projects. The findings are presented in the table 4.14

Table 4-14: Cost Transparent for Overcharging of Projects does not occur

Recognized as significant	Frequency	Percent	Gross Percentage
Strongly Agrees	33	86.84	100
Agrees	5	13.16	
Disagrees	0	0	0

Neutral	0	0	
Total	38	100	100

Source: Researcher's Database (2018)

From table 4.14, we see that, 33 respondents (86.8% of respondents) strongly agrees that costs transparent are much enough so that the overcharging does not occur during the projects in the organization, 5 respondents (13.2% of respondents) on agrees recognized it as important while disagree and neutral are none. These findings justify that at Addis North Substation Rehabilitation and Upgrading Project, the cots transparent are more enough and they make sure that no overcharging occurs during the projects.

The review of some contract files at the Project office showed that there are some contracts which have been out of the budgeted amount but that was due to extensions of time and claims for variation (i.e., presence of additional works that were unforeseen before). This revealed that presence of variations is because contract management is not given much of the deserved attention and poor approaches for contract management which are associated with unapproved variation of works. On the contrary, at the Ethiopian Electric Power there is a good contract management approach when such claims for variations were raised and consulted for their approval.

4.2.4.13 The Utilization of Benefits Promised During Contracts of Projects Performance

Respondents were asked to give their opinion on the utilization of benefits as per contracts said.

The findings are presented in the table 4.15

Table 4-15: Utilization of Benefits as Per Contracts Management Promised

Recognized as significant	Frequency	Percent	Gross Percentage
Strongly Agrees	33	94.29	100
Agrees	2	5.71	
Disagrees	0	0	0

Neutral	0	0	
Total	35	100	100

Source: Field Data (2018)

From table 4.15 we see that, 33 respondents (94% of respondents) strongly agrees that Addis North Substation Rehabilitation and Upgrading Project utilizes the benefits as per contracts said while 2 agrees that the benefits are fully utilized as per contracts terms. And the rest they are neutral and disagrees. This concludes that the Addis North Substation Rehabilitation and Upgrading Project utilized effectively the benefits of contracts as per said on contracts.

4.2.5 Correlation Analysis

This study employs the correlation analysis, which investigates the strength of relationships between the studies variables. Pearson correlation analysis was used to provide evidence of convergent validity. Pearson correlation coefficients reveal the magnitude and direction of relationships (either positive and negative) and the intensity of the relationship (-1.0 to +1.0). general guidelines of the relation of .10 to .30 are considered weak, correlations of .30 to .70 are considered moderate correlation and of .70 to .90 are considered large and correlations of .90 to 1.00 are considered strong (Marczyk, et al., 2005).

Table 4-16: Correlation between independent and dependent variables

		Correlations			
		Supplier's compliance with terms and conditions of contract	Supplier's technical capability	Close monitoring of procurement contracts during project implementation	Project success
Supplier's compliance with terms and conditions of contract	Pearson Correlation	1	.776**	.835**	.743**
	Sig. (2-tailed)		.000	.000	.000
	N	38	38	38	38
Supplier's technical capability	Pearson Correlation	.776**	1	.625**	.492**
	Sig. (2-tailed)	.000		.000	.002

	N	38	38	38	38
Close monitoring of procurement contracts during project implementation	Pearson Correlation	.835**	.625**	1	.859**
	Sig. (2-tailed)	.000	.000		.000
	N	38	38	38	38
Project success	Pearson Correlation	.743**	.492**	.859**	1
	Sig. (2-tailed)	.000	.002	.000	
	N	38	38	38	38

** . Correlation is significant at the 0.01 level (2-tailed).
Source: Survey findings (2018)

As per table 4.4, the coefficients show that the three dimensions of independent variables were all positively related with project success within the range of 0.492 to 0.859, all are significant at $p < 0.01$. The magnitude of the relationship is moderate and high.

4.2.6 Discussion of the questionnaire and Interview analysis

The interview was made after the questionnaire has been fully collected and analyzed so the interview was designed to in order to support and identify answers on the results of the questionnaire. The interview was held specifically with the Project manager, Procurement Manger, Substation operation manager, Transport Manager, Warehouse manager and Logistics manger. The purpose of this research is to assess the role of contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project. This section discusses the research findings from questionnaires and interviews in relation to research questions based on responses from both respondents and interviewees.

4.2.6.1 Contract Management Recognized as Important Function

This reflects respondents' suggestions on significance of contract management function. All respondents consider contract management function as significant to the organization. It can be said that, contract management function has value addition to the entire organization. This is in agreement with Green Point Global (2013) who reported that managing contracts is managing risks. This argument is supported by Republic of South Africa's national Treasury (2010) as earlier seen in the literatures, that good contract management has the capacity to increase revenue opportunities, decrease costs, and enhance service delivery.

4.2.6.2 Suppliers' Compliance with Terms and Conditions of the Contracts

This part reflects the respondents' opinion on the dependency of project management on suppliers' compliance with terms and conditions of the contracts. Almost 92 % of respondents were in view that there is really dependency between the two. As seen from section 2.2.4 of the literatures, amongst other things, contract terms and conditions are the prerequisite requirements for enforcement of contracts. This has been supported by Humphries Associates (2004) who proclaimed that the terms and conditions of the contracts are the basis for all purchase orders. This fact answers the first research question of this study.

4.2.6.3 Suppliers' Technical Capability and Effective Project Management

Findings from research reveal that there is strong correlation between effective project management and suppliers' technical capability. Since power industry is a project oriented, selection of suppliers is critical to the organization. Right supplier selection increases the likelihood of organization to have high quality and innovative products or services, reduces risks and determines whether the supplier has the technical ability and capacity to perform the work. These are vital for the success completion of projects. This fact is in accord with (USPS, 2013) who argued that technical supplier analysis confirms the reasonable type and amount of resources proposed by the supplier which covers the proposed types, quality and quantities of materials, processes, labor and tools as set forth in the proposal.

The suppliers need to understand the importance of such projects to their customers. Also needs to make sure that the materials are delivered on right time, right amount, at right place and right quality and quantity. so that the value of money and projects are well executed Moreover, technical capability of suppliers is important for effective project management because product or service quality is a direct result of production workforce and suppliers. Therefore, technically capable suppliers are important element of effective project management and this suffices as the answer to the second research question.

4.2.6.4 Close Monitoring of Procurement Contracts during Project Implementation

While some participants indicated that close monitoring of procurement contracts has no significance to effective project management, majority (52.63%) of respondents agreed that

effective contract management depends on close monitoring of procurement contracts. It can generally, from respondents' observation, be deduced that effective project management depends on close monitoring of procurement contracts. The findings are consistent with Hinton (2003) who asserted that close monitoring of project contracts ensures that vendors adequately perform their respective contracted works or services.

4.2.6.5 Respondents' Experience on Disputes

Apparently, analysis shows that at Addis North Substation Rehabilitation and Upgrading Project, there are disputes related to projects majority of which are caused by suppliers' late delivery, poor quality of works and/or services, vague specifications and technical incapability. These findings, coupled with Sharma et.al. (2011)'s research show that these are common problems with suppliers. Droge et al. (2004), supports the argument by adding that these supplier issues are caused by poor supplier involvement in product development, in quality programs, long term relationship and frequency of schedule changes. This apparently answers the general research question.

4.2.6.6 Visibility of Project Contracts

Research analysis shows that little attention is paid to contract visibility at Addis North Substation Rehabilitation and Upgrading Project. This makes contract and hence project difficult to manage. Poor contract monitoring and control has been named as one of the most contract management issues to most companies. IBM (2013) stated that despite advancement in Information and Communication Technology, to most companies, most contracts are still flagging in file cabinets, being managed manually or with very limited technologies, there is no visibility into what is virtually happening in the active contracts at every stage of the contract and project life cycle.

4.2.6.7 Staffing Adequacy in Contract Management Function

Analysis indicates that there is staffing inadequacy at Addis North Substation Rehabilitation and Upgrading Project's contract management function. This might be the cause of poor contract visibility in the organization as seen in section 5.9. This is consistent with general view that

efficiency and productivity of organization depends heavily on effective recruitment and maintaining proper staffing levels (Skuturna, 2006).

4.2.6.8 Enforcement of Penalty Clauses for Breach of Project Contracts

Research analysis reveals that Addis North Substation Rehabilitation and Upgrading Project has been slack on enforcement of penalty clauses for suppliers' breach of project contracts. The respondents' opinion on how the penalty is discharged was that instead of paying a specified sum in comparison with the loss, the discharge was mainly through counter offers specifically to major suppliers where a consultant is provided for free or training programs are offered for free of charge. As supported by the insertions of Hatzis (2003) who asserted that having penalty clauses and not enforcing them is like "having a cake and not eating it". This suggests that lack of enforcement of penalty clauses against suppliers might be the reason why there is lack of compliance to terms and conditions, project delays, late deliveries, poor after sales services, poor quality of works.

4.2.6.9 Suppliers' Delivery Performance

Although the results show that majority of participants agree that Addis North Substation Rehabilitation and Upgrading Project's suppliers observes delivery schedules but still there is increased laxity. According to respondents at Addis North Substation Rehabilitation and Upgrading Project Delivery issues mostly are experienced with local suppliers. This shows that at Addis North Substation Rehabilitation and Upgrading Project, there is no strong supplier performance measurement specifically delivery performance. This point was supported by Aberdeen Group (2006) in their supplier benchmarking project which provided strong evidence that most enterprises have inconsistent strategies and insufficient infrastructure for managing and measuring supplier performance.

4.2.6.10 Effectiveness of Technical Evaluation of Suppliers

Majority (52.63 %) of respondents agree that at Addis North Substation Rehabilitation and Upgrading Project there is no strong technical evaluation of suppliers. This shows that at Addis North Substation Rehabilitation and Upgrading Project there is no effective technical evaluation

of suppliers. This might be the reasons why at Ethiopian Electric Power some projects fail as supported by Sharma et.al (2011) for smooth execution of projects, it is necessary to consider technical, managerial and financial criteria in supplier prequalification process.

4.2.6.11 Risks Associated With Poor Management of Project Contracts

Analysis reveal that, due to improper contract management, Addis North Substation Rehabilitation and Upgrading Project is exposed to a lot of risks ranging from project management uncertainty, contractor relationship risks, poor quality of works or services, late deliveries, termination penalties especially when the contract is in auto prolongation mode and there is no exit clause, conflicts as well as loss of revenue and goodwill.

CHAPTER FIVE

5. SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY OF MAJOR FINDINGS

The primary objective of this study was to examine the role of procurement contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project and the specific objectives of the study includes investigating if Supplier's compliance with terms and conditions of the contract relates to effectiveness of project management, describing whether technical capabilities of Suppliers has effects on the effectiveness of project management and investigating if close monitoring of procurement contracts during projects implementation correlates to the effectiveness of project management.

The study included three independent variables (Supplier's compliance with terms and conditions of the contract, technical capabilities of suppliers and close monitoring of procurement contracts during projects implementation) to measure effectiveness of project management at Addis North Substation Rehabilitation and upgrading project towards project success. The study was conducted by using both primary and secondary data. The primary data for this study were collected through questionnaires and a one to one interview with Project manager, Procurement Manger, Substation operation manager, Transport Manager, Warehouse manager and Logistics manager. The study used 50 randomly selected employees.

According to the research findings, the three independent variables were positively affect project management towards project success and also there is high dependency of project management on the three independent variables. Contract terms and conditions are the prerequisite requirements for enforcement of contracts and the basis for all purchase orders.

The research findings indicated that project office slacks enforcement of penalty clauses for suppliers' breach of project contracts. The respondents' opinion on how the penalty is discharged suggests that lack of enforcement of penalty clauses against suppliers might be the

reason why there is lack of compliance to terms and conditions, project delays, late deliveries, poor after sales services, poor quality of works and consequently creates disputes between the two parties.

The research also showed that there was strong correlation between effective project management and suppliers' technical capability. Majority of the respondents believed that selecting the right supplier increases the likelihood of organization to have high quality and innovative products or services, reduces risks and determines whether the supplier has the technical ability and capacity to perform the work. These are vital for the success completion of projects. And also there was no strong technical evaluation of suppliers. This might be the reasons why at Ethiopian Electric Power some projects fail and it is necessary to consider technical, managerial and financial criteria in supplier prequalification process.

The majority of respondents agreed that effective contract management depends on close monitoring of procurement contracts. It can generally, from respondents' observation, be deduced that effective project management depends on close monitoring of procurement contracts and also analysis indicated that there was staffing inadequacy at Addis North Substation Rehabilitation and Upgrading Project's contract management function. This might be the cause of poor contract visibility in the organization.

Finally, according to the data obtained from the project office showed that contracts contained all the necessary required information/terms and conditions although this was not a guarantee that the same will be followed sufficiently in the execution to guarantee for effective project management. Basing from the selected contracts, it was established that the contracts were effectively executed and managed adequately when compared to the terms and conditions of the contract. Nevertheless, there were lessons to be learnt in order to enhance the conformance to terms and conditions of the contract and improve the level of effectiveness contract management in the future.

5.2 CONCLUSION

The objective of this research study were to assess the role of procurement contract management in the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project, specifically, to determine if supplier's compliance with terms and conditions of the contract relates to effectiveness of project management, to determine whether technical capabilities of suppliers reveal the effectiveness of project management and to determine if monitoring of procurement contracts during projects implementation correlates to the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading Project.

The findings reveal that there is very high dependency of effective project management on suppliers' compliance with terms and conditions, suppliers' technical capability and close monitoring of suppliers during project implementation. Although at Addis North Substation Rehabilitation and Upgrading Project contract management function is considered significant and all projects are approved by heads of operations, procurement and finance departments in the purchase committee is twice a week, there is staffing inadequacy in contract management function, there are disputes related to projects majority of which are caused by suppliers' late delivery, poor quality of works and/or services, vague specifications, supplier's technical incapability and little attention is paid to making contract visible which makes contract and hence project difficult to manage.

Addis North Substation Rehabilitation and Upgrading Project have also been slack on enforcement of penalty clauses for suppliers' breach of project contracts; instead discharge is mainly done through counter offers. There is also lack of efficient technical evaluation of suppliers and increased laxity in supplier monitoring especially on delivery KPI for local suppliers. These have exposed Addis North Substation Rehabilitation and Upgrading Project to a lot of risks ranging from project management uncertainty, supplier relationship risks, poor quality of works or services, late deliveries, conflicts as well as loss of revenue and goodwill.

5.3 RECOMMENDATIONS

Depending on the findings of the study and conclusions made, the researcher came up with some important recommendations that can be used to influence effective project management towards project success. The recommendations are the following:

- First and foremost, to administer compliance with terms and conditions of project contracts, Addis North Substation Rehabilitation and Upgrading Project should secure and enforce penalty clauses for suppliers' breach of project contracts instead of discharging it through counter offers. These offers are normally provided at prices which cannot compensate the loss incurred. Moreover, enforcement of penalty clauses would help suppliers to match specifications, deliver materials and high quality of projects and services on time which would guarantee the efficient and effective delivery of project. For avoidance of doubt, the organization shall require a supplier to submit reports in advance of or concurrent with its invoices. These reports should be directly related to the terms and conditions of project contracts.
- Since it is a project oriented organization, price alone should not be the determining factor for supplier qualification; strong technical supplier evaluation is highly recommended to ensure that suppliers deliver projects at excellent standards. This shall include previous experience in similar field and with same type of requirements, available capability and equipment to undertake the project as well as qualifications and experience of proposed personnel. RFPs should also communicate evaluation criteria that are relevant for the project to be undertaken and at the end of the contract period. Addis North Substation Rehabilitation and Upgrading Project should evaluate the supplier's delivery performance and provide a report to the supplier on its performance. This would technically enhance efficiency in delivery of projects.
- Last but not least, to enhance contract and project management, Addis North Substation Rehabilitation and Upgrading Project should have a contract management solution (e-contract management) so as to have visibility into what is happening in its active contracts at virtually every stage of the project lifecycle. The automated solution should be able, at minimum and at any time, to provide information related to contract number,

contract scope, parties involved, addresses of the contact person, whether new or amendment, contract start date, expiry note, contract value, contract term, approval date, automatic renewal details, extension period, business department under agreement, whether competitive or single source, invoicing terms, payment terms, purchase committee approval date, currency, contract value, funding type; whether Operating Expenses (OPEX) or Capital Expenditures (CAPEX), CAR number, commercial terms, termination clause, taxes and warranties as well as Service Level Agreement and insurance.

- Effective project management should be consistent from contract creation through to tracking milestones and contract renewal. This solution should be designed to provide alerts and reporting systems for all project contracts. Moreover, due to growth of business and increasing risks associated with the increase in supplier base, Addis North Substation Rehabilitation and Upgrading Project has to recruit and retain more experienced and qualified staff for contract management function to cope with increased demand of project management. This would increase the likelihood of close monitoring of project contracts during projects implementation.

5.4 Limitations of the Study

This study had limitations which were related to access to **secondary data as contract information** were held confidential. It was also unpredictable whether the subjects would respond to the **questionnaires honestly**. This could have a bearing on the **validity and reliability** of the study (Sullivan and Spilka, 2011).

5.5 Suggestions for further research

Time constraint was the most important limiting factor, collecting more data from more than two project offices could lead to more precise representation of the real situation on the topic. Given the study was conducted only in one project office further studies suggested are for researchers to study in more details, to represent insight details on the matter, explicitly address the issue of risk management and KPI on contract management, future research should involve more project offices under Ethiopian Electric Power.

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Appendices

Appendix 1: Data Gathering Questionnaire to Procurement, Logistics and Warehousing Personnel and other departments of Ethiopian Electric Power (EEP).

Dear respondents,

My name is Yehualawork Mekonnen , I wish to seek your assistance, as a participant, with this research project, which is being conducted as a partial fulfillment for my master's degree in Logistics and Supply Chain Management at Addis Ababa university, school of commerce. This research project is undertaken as an attempt to identify the role of procurement contract management in the effectiveness of project management for Ethiopian Electric Power: The Case of Addis North Substation Rehabilitation and Upgrading Project. The result of the study will assist Ethiopian Electric Power (EEP) to identify the implementation gap at the Addis North Substation Rehabilitation and Upgrading Project and take corrective action.

Your participation in this survey is voluntary. The information you provide will be used only for the purpose of the study and will be kept strictly confidential. Please don't mention your name.

Thank you in advance for your time and help with my research.

Sincerely yours,

Part I—General information

Respondents Demography (please put a “X” mark on the box that best describes you)

Instruction: Please mark your answer with a tick (√) in the space provided

- 1 Age 18-25 26-35 36-44 45 & above
- 2 Gender Female Male
- 3 Educational level Primary Education Secondary Education Diploma First Degree Masters & above
- 4 Monthly income in ETH birr. 5000-10000 10001-15000 15001 +

Part II- Basic information

1. What is your position/role at Ethiopian Electric Power (EEP)?

2. For how long have you worked in Ethiopian Electric Power (EEP) in your current position? (in years)

3. How important do you consider the Contract Management function in the effective delivery of project contracts? Kindly cycle the correct answer in the following Likert-scale.

- (i.) Unimportant ()
(ii.) Of little important ()
(iii.) Moderately important ()
(iv.) Important ()
(v.) very important ()

4. Do you agree that effective project management depends on supplier's compliance with terms and conditions of contract? Kindly tick the correct answer.

- (i.) Strongly Disagree
- (ii.) Disagree
- (iii.) Neither agree nor disagree
- (iv.) Agree
- (v.) Strongly agree

5. Do you agree that effective project management depends on supplier's technical capability? Kindly tick the correct answer.

- (i.) Strongly Disagree
- (ii.) Disagree
- (iii.) Neither agree nor disagree
- (iv.) Agree
- (v.) Strongly agree

6. Do you agree that monitoring of procurement contracts during project implementation correlates the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading project? Kindly tick the correct answer.

- (i.) Strongly Disagree
- (ii.) Disagree
- (iii.) Neither agree nor disagree
- (iv.) Agree
- (v.) Strongly agree

7. Are purchase committee board meeting conducted? Kindly tick the correct answer.

- (i.) Yes
- (ii.) No
- (iii.) I don't know

8. If "Yes", how often are these PC meeting conducted? (Number of times a week)

9. Who authorize(s) the purchase of project requisitions in the purchase committee? (Designations only)

10. Have you experienced any dispute(s) with Addis North Substation Rehabilitation and Upgrading Project suppliers in delivering projects? Kindly tick the correct answer.

- (i.) Yes
- (ii.) No

11. If your answer is “Yes” kindly state what was it (were they) related to?

12. What measures has Addis North Substation Rehabilitation and Upgrading Project taken to resolve those disputes? -----

13. Do you think Addis North Substation Rehabilitation and Upgrading project has visibility of its Project contracts ? Kindly cycle the correct answer

- (i.) Yes
- (ii.) No
- (iii.) I don't know

14. If “No”, what measures are being taken by management to ensure that there is consistent contract visibility?

15. In your opinion, do you think Addis North Substation Rehabilitation and Upgrading Project contract Management function is properly staffed? Kindly tick the correct answer.

(i.) Yes

(ii.) No

(iii.) I don't know

16. If "No", what measures are being taken by management to ensure that the function is properly staffed?

17. Are penalty clauses enforced for breach of project contracts? Kindly tick the appropriate answer

(i.) Yes

(ii.) No

(iii.) I don't know

If your answer is "No" kindly state how it is discharged

18. Kindly state the risks associated with poor management of project contracts?

19. Are the cost transparent enough to ensure the overcharging of services during the projects ordering does not occur?

(i.) Strongly Agrees

(ii.) Agrees

(iii.) Disagrees

(iv.) Neutral

20. Are the benefits promised by contracts management are fully utilized and realized by Addis North Substation Rehabilitation and Upgrading Project?

- (i.) Strongly Agrees ()
- (ii.) Agrees ()
- (iii.) Disagrees ()
- (iv.) Neutral ()

21. Does the purposes and scope of the contracts are well defined and communicated in prior of the final dates?

- (i.) Strongly Agrees ()
- (ii.) Agrees ()
- (iii.) Disagrees ()
- (iv.) Neutral ()

22. Is there any information management system that can supports contracts manager

- (i.) Yes ()
- (ii.) No ()
- (iii.) Neutral ()

23. Is the total spend during the contracts are well understood by both parties?

- (i.) Yes ()
- (ii.) No ()
- (iii.) Neutral ()

24. Additional comments and suggestions

Appendix 2: Interview Questions to Ethiopian Electric Power Management team

Introduction and Purpose of Interview

My name is Yehualwork Mekonnen, I am a Master's student at Addis Ababa University School of Commerce, department of Logistics and supply Chain management. I am conducting a research study which is a part of my Master's thesis and on the process of collecting data for this research study purpose.

This research project is undertaken as an attempt to identify the role of Procurement Contract Management in the effectiveness of project management for Ethiopian Electric Power: The Case of Addis North Substation Rehabilitation and Upgrading Project. The result of the study will assist Ethiopian Electric Power (EEP) to identify implementation gap at Addis North substation Rehabilitation and Upgrading Project and take corrective action.

I am looking your kind participation in interview which will take 30 minutes. Your participation in this interview is voluntary. The information you provide will be used only for the purpose of the study and will be kept strictly confidential.

Thank you in advance for your time and help with my research.

Sincerely yours,

1. What is your position/role at Ethiopian Electric Power (EEP)?

2. For how long have you worked in Ethiopian Electric Power (EEP) in your current position? (in years)

3. How important do you consider the Contract Management function in the effective delivery of project contracts?

- (i.) Unimportant ()
- (ii.) Of little important ()
- (iii.) Moderately important ()
- (iv.) Important ()
- (v.) very important ()

4. Do you agree that effective project management depends on supplier's compliance with terms and conditions of contract?

- (i.) Strongly Disagree ()
- (ii.) Disagree ()
- (iii.) Neither agree nor disagree ()
- (iv.) Agree ()
- (v.) Strongly agree ()

5. Do you agree that effective project management depends on supplier's technical capability?

- (i.) Strongly Disagree ()
- (ii.) Disagree ()
- (iii.) Neither agree nor disagree ()
- (iv.) Agree ()
- (v.) Strongly agree ()

6. Do you agree that monitoring of procurement contracts during project implementation correlates the effectiveness of project management at Addis North Substation Rehabilitation and Upgrading project?

- (i.) Strongly Disagree ()
- (ii.) Disagree ()
- (iii.) Neither agree nor disagree ()

- (iv.) Agree ()
- (v.) Strongly agree ()

7. Are purchase committee board meeting conducted?

- (i.) Yes ()
- (ii.) No ()
- (iii.) I don't know ()

8. If "Yes", how often are these PC meeting conducted? (Number of times a week)

9. Who authorize(s) the purchase of project requisitions in the purchase committee? (Designations only)

10. Have you experienced any dispute(s) with Addis North Substation Rehabilitation and Upgrading Project suppliers in delivering projects?

- (i.) Yes ()
- (ii.) No ()

11. If your answer is "Yes" kindly state what was it (were they) related to?

12. What measures has Addis North Substation Rehabilitation and Upgrading Project taken to resolve those disputes?

13. Do you think Addis North Substation Rehabilitation and Upgrading Project has visibility of its Project contracts?

- (i.) Yes
- (ii.) No
- (iii.) I don't know

14. If "No", what measures are being taken by management to ensure that there is consistent contract Visibility?

15. In your opinion, do you think Addis North Substation Rehabilitation and Upgrading Project contract management function is properly staffed?

- (i.) Yes
- (ii.) No
- (iii.) I don't know

16. If "No", what measures are being taken by management to ensure that the function is properly staffed ? -----

17. Are penalty clauses enforced for breach of project contracts? Kindly tick the appropriate answer

- (i.) Yes
- (ii.) No
- (iii.) I don't know

If your answer is "No" kindly state how it is discharged -----

18. Kindly state the risks associated with poor management of project contracts?

19. Are the cost transparent enough to ensure the overcharging of services during the projects ordering does not occur?

- (i.) Strongly Agrees
- (ii.) Agrees
- (iii.) Disagrees
- (iv.) Neutral

20. Are the benefits promised by contracts management are fully utilized and realized by Addis North Substation, Rehabilitation and Upgrading Project?

- (i.) Strongly Agrees
- (ii.) Agrees
- (iii.) Disagrees
- (iv.) Neutral

21. Does the purposes and scope of the contracts are well defined and communicated in prior of the final dates?

- (i.) Strongly Agrees
- (ii.) Agrees
- (iii.) Disagrees
- (iv.) Neutral

22. Is there any information management system that can supports contracts manager?

- (i.) Yes
- (ii.) No
- (iii.) Neutral

23. Is the total spend during the contracts are well understood by both parties?

- (i.) Yes
- (ii.) No

(iii.) Neutral

()

24. Additional comments and suggestions

RESEARCH ACTIVITIES SCHEDULE

The following table shows expected time frame for research activities

ACTIVITY LIST	DURATION								
	Oct/2017	Nov/2017	Dec/2017	January/2018	Feb/2018	Mar/2018	Apr/2018	May/2018	June/2018
Topic selection	Yes								
Consultation with supervisor		Yes							
Production of first draft PARTIAL thesis proposal		Yes							
Submission of 1st draft full proposal			Yes						
Preparation and submission of Final proposal to program unit				Yes					
PROPOSAL DEFENSE				Yes					
Proposal modification				Yes					
Period of Data collection					Yes				
Findings and analysis, interpretation and discussion of results						Yes			
Preparation of Summary, Conclusion, and Recommendation Research Limitation and Areas of Future Research							Yes		
Final write up and submission of final research report							Yes		
THESIS DEFENSE PERIOD								Yes	
Submission of Final thesis report to program unit									Yes

Source: Distance program coordinating unit (2017)