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DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT

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ASSESSMENT OF CONSTRUCTION PROCUREMENT MANAGEMENT PRACTICE IN THE CASE OF ADDIS ABABA CITY DESIGN AND CONSTRUCTION WORKS BUREAU

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ADDIS ABABA, ETHIOPIA

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Assessment of Procurement Management Practice in the case of Addis Abeba City Design and Construction Works Bureau

A Thesis Paper Submitted to Addis College School of Graduate Studies in Partial Fulfillment of the Requirements for the Degree of Masters of Construction Technology and Management, (MSc)

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DECLARATION

I declare that this thesis entitled “ASSESSMENT OF PROCUREMENT MANAGEMENT PRACTICE IN THE CASE OF ADDIS ABEBA CITY DESIGN AND CONSTRUCTION WORKS BUREAU” is my original work. This thesis has not been presented for any other university and is not concurrently submitted in candidature of any other degree, and that all sources of material used for the thesis have been duly acknowledged.

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Acknowledgment

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LIST OF ACRONYM

AACDCWB -Addis Abeba City Design and Construction Works Bureau

DCWO -Addis Abeba City Design and Construction Works Office

AACFB -Addis Abeba City Finance Bureau

AACJB -Addis Abeba City Justice Bureau

MoFED- Ministry of Finance and Economic Development

PMBOK- Project Management Body of Knowledge

SPSS - Statistical Package for Social Sciences

RII- Relative Important Index

ABSTRACT

Procurement is a critical activity in public organizations to ensure transparency and efficient utilizations of the budget allocated for achievement of different projects goals. And also procurement is a method implemented to search the need and fill a gap by the purchasing company in order to maximize efficiency while reducing cost and time. Thus, the main objective of this study is to assess the construction procurement management practice in the case of Addis Abeba City Design and Construction Works Bureau. The researcher has used descriptive research method and the data collection tool was a closed-end questionnaire. The study used Statistical Package program for Social Sciences and Microsoft excel for data analysis and interpretations. The sample size of the study was 64 individuals selected through stratified sampling and the response rate was 96.94%. A Questionnaire was distributed to employees who are involved in construction procurement management process in the bureau. A current construction tender document preparation and evaluation and the necessity of developing a better evaluation criteria is assessed. Based on the assessment responses, there is a gap in the technical evaluation requirements and the preparation of the tender documents. In the third criterion, it shows that the way the bidding is carried out and the score given to the evaluation criteria should be improved.

*Key word:-**PROCUREMENT, CONSTRUCTION PROCUREMENT MANAGEMENT, TENDER DOCUMENT EVALUATION***

CHAPTER-ONE

1. INTRODUCTION

Procurement is a multi-profession function that assures the identity, sourcing, access, and control of outside suppliers that an employer wants or may want to meet its strategic goals. Procurement has a significant contribution for supply market opportunities and for implementations of strategic sourcing.

The supply chain has been directly linked to the overall company performance and this has therefore made procurement practices vital to company success. Procurement practices positively impact an organization's financial performance, the success of a new product depends on procurement and supplier involvement. Most organizations use a substantial amount of their income in procurement and therefore recognize the importance of strategic procurement practices Carr and Pearson (2002). Directors and heads of procurement department greatly influence supplier evaluations and the drafting of specifications to ensure the organization gets the best value for its money.

This chapter presents the background of the study, statement of the problem, general and specific objectives of the study, research questions, significance of the study, scope of the study, limitation of the study and organization of the study.

1.1. Background of the study

All human beings in modern societies are directly affected by construction processes and/or products; the importance of a well-functioning construction industry is beyond doubt (Eriksson, 2007).

Practitioners, researchers and society at large have, therefore, called for a change in attitudes, behavior and procedures in order to increase the chances for construction projects to be successful and result in improved end products. (Dubois and Gadde, 2002).

Different literatures illustrated project implementation in different ways. Chan (2004) stated that, it's a basis for organizational structure adoption for successful project completion and

processing. The performance of projects has varied in relation to the type of procurement process implemented within the project.

Procurement is a critical activity in public organizations to ensure transparency and efficient utilizations of the budget allocated for achievement of different projects goals. Carr and Smeltzer (2007) illustrated that procurement is a method implemented to search the need and fill a gap by the purchasing company in order to maximize efficiency while reducing cost and time. Other research findings conducted by Weele (2006) defines procurement as the process of selecting suppliers, conducting strategic vetting, establishing payment conditions, selecting, negotiating, and purchasing products. Lim (2014) indicated that procurement is the method of obtaining products, services, and work that are critical to an organization's success.

The research conducted by Freweyni (2019) indicated that dynamic nature of procurement method selection and subsequent management has been a challenging for the clients and has also a contribution for low project performance. Eriksson and Laan (2007) also elaborated on their studies that, traditional competitive procurement practices, activate adversarial relationships and numerous problems at all stages of the purchasing process.

It is known that Addis Abeba Design and works bureau and the eleven sub-cities under it is carrying out construction by issuing bids on behalf of the Addis Abeba city administration in accordance with the authority given by proclamation No. 64/2011 and 74/2014. Since due attention is not given in the process of procurement management, during the construction of projects, there is a huge problem in the process of completing the project with the scheduled, price and time as well as the quality. The main objective of this research paper is to identify the problems in the construction procurement management process of the Addis Abeba City Design and works bureau and the eleventh sub-cities design and construction works offices under it, to have a better procurement management and to suggest a way to solve the problems in the implementation of tender.

1.2. Statement of the problem

Project procurement is distinguished from other forms of procurement in that it’s not a onetime action taken rather it’s a series of procurement activities carried out during the

execution of a project. Based on this, Procurement can be seen as a fundamental part of project management because it is crucial to the success of the project that procurement activities are appropriately planned and executed (wysocki, 2014).

According to PMBOK (2019), the construction Project Procurement Management processes include planning procurement, conducting procurements, administer or controlling and closing Procurement. Thus, a project procurement management practice needs to consider these points in order to be effective and efficient. A good procurement planning before undertaking a procurement process is a key contributor to project success (Deme A., 2009). According to PMBOK (2019), conducting procurements is about obtaining bidder responses, selecting a bidder, and awarding a contract. As construction participant play a vital role in success of the procurement it should be well conducted to have the desired outcome. Thus, having a procurement practice well-defined in a project will be of favor to successful outcome of the project.

It is known that in Addis Ababa City Design and Construction Works Bureau and the eleven sub-cities design and construction works offices under it projects executed over the years were faced with the project cost overrun, delay in project execution, completing projects at sums higher than the initial sum and projects execute under the desired quality. Therefore, working with accurate procurement evaluation is necessary at the commencement of a project work, which would reduce uncertainty and provide a plat form for project success. According to the performance report submitted by the bureau at different times presented, it has been stated that many problems have been encountered in the implementation of projects due to the improper execution of the Procurement management practice. Before the researcher met the parties who responded to collect data, he observed that many of project were not completed on time due to a gap during the procurement management, causing additional costs to the bureau, and the projects were not completed on time and could not provide proper services. Thus, this research fills the gaps of this procurement management problem, especially in the evaluation of tender documents, and lead to a better system.

1.3. Research Objective

1.3.1. General Objective

The general objective of this study is to assess construction procurement management practice on Addis Ababa City Design and Construction Works Bureau.

1.3.2. Specific Objectives

This Study is intended to:

1. To assess the existing practice of construction procurement document preparation method of the Addis Abeba city Design and Construction works bureau.

2. To evaluate the existing bid evaluation practice of Addis Abeba City Design and Construction works bureau.

3. To develop a better bid evaluation frame work system to Addis Abeba City Design and Construction works bureau.

1.4. Basic Research Questions

1. What are the gaps that appear during the preparation of the construction procurement document in Addis Abeba city Design and Construction works bureau?

2. How is the evaluation of the construction tender document done by in the Addis Abeba City Design and Construction works bureau?

3. What should be done to develop a better procurement evaluation framework in Addis Abeba City Design and Construction works bureau?

1.5. Significance of Study

The result of this study will support Addis Ababa City Design and Construction Works Bureau, the eleventh sub-cities design and construction works offices under it and other construction firms to evaluate their current procurement management system and to emphasizing on a better construction procurement evaluation framework. And in addition to this it is expected that the findings of this study will be support the various authors and

researchers in literature review and the findings of this study will be utilized by policy makers and academic that is related to this study.

1.6. Scope of the Study

This academic work had been limited in thematic scope and geographical scope. The procurement management is assessed from the respect of preparation of document, tendering and evaluation of tender document. The study is conducted to evaluate procurement management system of Addis Ababa city design and construction works bureau and the eleventh sub-cities design and construction works offices under it **a**nd to recommend better way of procurement evaluation method. The study is considered the engineering procurement staffs involved in Addis Ababa City design and construction works bureau and the eleventh sub-cities design and construction works offices under it**.**

1.7. Limitation of the Study

The study included evaluation or assessment of construction tender documents issued by the Addis Ababa Design and Construction Works Bureau and the eleven sub-cities design and construction works offices under it for the construction procurement evaluation system to build public utility buildings since 2011E.C. It is not easy for the researcher to obtain all the necessarily document related to the construction procurement evaluation and it is difficult to get valid information from all respondents related to procurement management system.

1.8. Organizations of the Study

This research paper is organized in to five chapters. Chapter one deals about the problems and its approach, statement of the problems, research questions, objective of the study, significance of the study, delimitation of the study and limitation of the study. Chapter two is about review of related literatures. The third chapter discusses the research design and methodology. The methodology chapter discussing on the overall structure and research design in this research thesis, as well as a description of the applied methodological approaches. The fourth chapter presents, the findings through data presentation, analysis and interpretation of the results. Finally, the fifth chapter presents summary, conclusions and recommendations.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. INTRODUCTION

This chapter reviews the prior research conducted related to procurement management practice. The chapter also tries to elaborate the existing situation related to the Addis Abeba City Design and Construction Works Bureau.

2.2. Theoretical Literature

2.2.1. Definition of Procurement

Procurement means the framework in which development of projects is designed, financed, constructed, used, transferred and residual disputes are resolved. And also it has its own process of designing, specifying, sourcing, issuing, ordering and arranging of material, service and equipment's within an organization (William C. et al, 2000). Procurement is a term which describes the activities undertaken by a client or employer who is seeking to bring about the construction of a building (Anvuur A. et al, 2007). Procurement is the purchase of good, services, or works from an outside external source. Procurement is the process of purchasing goods or services. There are many different routes by which the design and construction of a building can be procured. The selected procurement route should follow a strategy which fits the long-term objectives of the client's business plan.

Lee (2006) elaborated that the role of procurement has become significantly important and it has a major determinant of any projects and organization success. Different factors affects procurement functions and from these globalization, advances, technological developments, cost pressure, and regulatory compliance have the upper hand related to cost savings and achieving more value for money (Khi V. Thai, 2001)

Procurement has a significant correlation with organizational money and wealth and as a result it has a decisive role for any business (Lee, 2006). Procurement is a procedure for assessing and purchasing of goods and services. It incorporates a lot of activities and from finding possible suppliers to delivering goods from suppliers to consumers.

There is a little probability to get a good quality, quantity of goods and service at the required place at the lowest possible cost to meet the buyer's requirements. Similarly, the situations are more serious in a public procurement system (Hines, 2006). Public procurement are the methods implemented by government delegates and it's highly structured. It leads by state procurement boards, that overseeing procurement in some cases. Purchasing is one components of procurement and its role associated with the physical purchase of products and services from suppliers (Manga, et al, 2008).

Procurement is a crucial activity for public organizations and business companies and it's a cross-cutting action that affects and touches each and every company's departments. Procurement is a method of obtaining goods, facilities or in formations by fulfilling the five R principles (Right source, Right quality, Right time, Right quantity and Right price) to achieve the organizations strategic objectives. (Hines, 2006). In one and other way Mangan et al. (2008) defined as procurement is the way of identifying and purchasing products and services. The activities implemented under procurement are vast and includes all operations from finding prospective suppliers to distribution to the beneficiary, including procurement and purchasing.

According to Van (2010), the subject of procurement incorporates purchasing of goods and services, hiring, or other contractual agreement settlement to get the required products, works, consulting, or other services. The process of procurement in public sector starts from need assessment and then deciding on procurement strategy. Some literatures illustrated that risk assessment is the first steps and the assessment focuses on finding supernumerary clarifications, award provision by accompanying contract agreement, receiving of goods and financial settlement for property and/or services, and, where applicable, contract management and evaluation of contract options. Proper disposal of good are neglected in most organizations but it's one parts of procurement (Van, 2010).

According to Robert, et al (2007) the process of buying, hiring, renting or trading to get material products, plant and/or machinery, goods, works, or services are included under the subject of procurement. Furthermore, he reported that, procurement need a multidisciplinary profession because the activities include the issues of prioritizing and selecting service and goods providers, negotiations based on the core procurement strategic directions, develop

terms and conditions and reaching an agreement, managing supplier performance, managing orders and materials, and changing purchasing systems (Robert, et al, 2007).

Public procurement management plays a key role in contributing to the bottom line of any organization. Public procurement is 'the process whereby government bodies purchase from the market the goods, works and services that they need'. In the public sector, large amounts are spent on goods and services because of the sector's gigantic size (Arrowsmith s. &Kunzilk P, 2009). It is the major reason that the Ethiopian government introduced a number of manual on public procurement complaints procedure. Most of the legislations, including the Higher Education Act emerged from the Constitution of the federal Republic of Ethiopia, which insisted that the education system should be transformed and democratized in a manner that values human dignity, equality, human rights and freedom, non-racism and non-sexism. Public procurement pay attention to purchasing, hiring or obtaining by any contractual means of goods, construction works and services by the public sector.

The current Ethiopia public procurement directive was issued by the Ministry of Finance and Economic Development. According to the MoFED (2011), the ministry introduced a Financial Administration Proclamation and Procurement and property Administration Proclamation to respond to national and international changes in the finical system. The ministry further stressed that the introduction of proclamations enables the country to close the gaps that might be observed in the finance, procurement and property management of the nation and to create internationally accepted financial working system. This proclamation defined procurement as obtaining goods, works, consultancy or other services through purchasing, hiring or obtaining by any other contractual means.

2.2.2. Definition of Project Procurement Management

According to PMBOK (2019), Project Procurement Management includes the processes required to acquire goods and services, to attain project scope, from outside the performing organization. It further described project procurement management as the process necessary to purchase or acquire products, services or results needed from outside the project team. The organization can be either the buyer or seller of the products, services, or results of a

project. Project procurement management includes the contract management and change control processes required to develop and administer contracts or purchase orders issued by authorized project team member.

Different literatures define procurement management differently and Eduardo Talero(2004) defines as the process of purchasing or obtaining the goods, services, or outcomes needed from outside the company to complete the work are referred to as procurement management.

It's a broad term and it includes a management of any contract negotiation, settlement and administration with outside entity (George Belev, 2004).

The procurement methods implemented in project at operation level are considered uncertainty analysis, right skills evaluations, detail plan preparation, broad based bid selection techniques development of a wise, fair contract methods. Besides a Systematized management strategy are needed to ensure authorities, accountability, timeliness, and money for effective procurement (Eduardo Talero, 2004).

2.2.3. Role of Procurement

Different scholars illustrated that procurement is a challenge in any supply chain. The role of procurement is vast and it touches the overall success of any project implementation. Satisfying demands into real products/commodities or services based on the predefined requirements are some of the roles of procurement within the supply chain management (Caldwell et al, 2009). The role of procurement is wider and it makes a significant contribution to organizational efficiency, and organizations should put in place efficient procurement processes to protect shareholders' funds. Any management strategy is designed by considering the issues of procuring and its helps for decisions making.

Procurement has a great linkage with manufacturing and trade sectors and both of them have a significant effect on a company's performance. Procurement has considered as a main function in many companies and subjected to the mega trends of the market. Its role touches by making a greater procurement volume by concentrating of business on core competences, globalization of procurement markets, growing market dynamics as well as the ever-shorter product lifecycle.

Currently the contribution of procurement function in any companies has vast and a great attention acquired and incorporated on its strategies and policies. Organizational policy are achieved through proper implementation of strategic procurement approach because such types of approach has a contributions to achieve the objectives of value for money in procurement of goods and services (World Bank, 2016).

The study conducted by Mason and Leek (2018), indicated that companies got a better competitive position rather than any other organization in the market place by implementing a best procurement method component. This procurement component can contribute for the achievement of the strategic goal of a given company or organization. Procurement has the characteristics of enhancing the degree of quality of a given product or service and this features of procurement has a upper hand for the enhancement of the capacity of suppliers, the proportions of market share by emplacing sustainable flow of goods and services from the source to end customers by maximum cash flow and maintaining inventory levels (Mason and Leek, 2008). Procurement has a direct correlation with organizational efficiency and competitiveness among other benefits and these benefits are ensured by proper implementations of all factors that have an influence on the performance of the procurement implementations at strategic level (cox, 2007).

2.2.4. Project Procurement Management Process

The Project Management Body of Knowledge (PMBOK, 2019), breaks Project procurement management into four processes which are procurement planning, conducting procurement, administer procurement and closing procurement**.** The literature of this study basis on the first two processes.

2.2.4.1. Plan Procurement

Plan procurement is the process of documenting project procurement decisions, specifying the approach and strategy, and identifying potential consultants/contractors. It identifies those needs which can best be, or must be, met by acquiring products, services, or results outside of the project organization, versus those project needs which can be accomplished by the project team (PMBOK, 2019).It begins at the start of new project, includes the make or buy analysis, ends with a published Procurement Management Plan (Fleming, 2003). It

involves consideration of whether to procure, how to procure, what to procure, how much to procure, and when to procure. Procurement planning should also include consideration of potential consultants/contractors, particularly if the buyer wishes to exercise some degree of influence or control over contracting decisions (PMBOK, 2019).

Planning is an integral part of all elements of the management system and to be effective involves the design and development of suitable processes and establishes objectives that define the criteria for judging success or failure of the management system. In general procurement planning begins at the start of new project, includes the make or buy analysis and end with a published procurement management plan (Fleming Q, 2003).

2.2.4.2. Conduct Procurement

PMBOK (2019) defines conducting procurement as the process of approaching and selecting consultants/contractors, and contract award process. In this process, the team will receive bids or proposals and will apply previously defined selection criteria to select one or more sellers who are qualified to perform the work and acceptable as a seller. Also Fleming (2003) describes source selection (conduct procurement) evaluates seller proposals, and ends with the issuance of a contract award to a seller.

2.2.4.3. Administer Procurement

Administer procurements is the process of administering procurement contracts, monitoring contract performance, and making changes and adjustments as appropriate. Both the buyer and the seller will administer the procurement contract for similar purposes. The Administer Procurements process ensures that the seller's performance meets procurements and that the buyer performs according to the terms of the legal contract (PMBOK, 2019).

2.2.4.4. Close Procurement

Close procurement is the process of completing each project procurement. It supports the close project or phase process, since it involves verification that all work and deliverables were acceptable. The close procurement process also involves administrative activities such as finalizing open claims, updating records to reflect final results and archiving such information for future use (PMBOK, 2019).

2.3. Empirical Literature Procurement Management

2.3.1. The World Bank

The World Bank describes the different types of evaluation criteria that may be used to select contractors for Goods, Works and Non-consulting Services when using Request for Bids or Request for Proposals selection methods. This Guidance should be read with reference to the World Bank Procurement Regulations for investment procurement financing (IPF) Borrowers, the Standard Procurement Document (SPD) and if applicable, the associated User Guide relevant to the Selected SPD. Specific application of evaluation criteria is detailed in each of the Bank's SPDs. Evaluation criteria are a standard or test used in the evaluation of Bids/Proposals to select the Most Advantageous Bid/Proposal which best meets the requirements and offers the best value for money (VFM). The following requirements govern the Bid/Proposal evaluation criteria: (World Bank, 2016)

a) the evaluation criteria shall be proportionate and appropriate to the type, nature, market conditions, complexity, risk, value and objective of what is being procured;

b) to the extent practicable, evaluation criteria should be quantifiable (such as convertible to monetary terms);

c) the SPD shall include the complete evaluation criteria and the specific manner in which they shall be applied;

d) only the evaluation criteria, and all the evaluation criteria, indicated in the SPD shall be applied; e) once the SPD has been issued, any change to the evaluation criteria shall be made only through addenda; and

f) the evaluation criteria shall be applied consistently to all Bids/Proposals submitted.

Evaluation criteria must be established in the early stages of the procurement in order to support transparency, value for money and integrity in the procurement process. After the contract requirements have been defined and the selection method decided the evaluation criteria are set so that the Borrower can appropriately evaluate which Bidder/Proposer is best able to deliver the requirements and maximize VFM.

To achieve VfM, the evaluation criteria may take into account such factors as the following:

a) Cost: evaluation of cost using a methodology that is appropriate to the nature of the procurement including:

i. adjusted Bid/Proposal price; or

ii. adjusted Bid/Proposal price plus the running/recurrent cost over the useful life time of the asset on a net present cost basis (life-cycle costs);

b) Quality: evaluation of quality using a methodology to determine the degree to which the Goods, Works, Non-consulting Services or Consulting Services meet or exceed the requirements;

c) Risk: criteria that mitigate the relevant assessed risk;

d) Sustainability: criteria that take into account stated economic, environmental, and social benefits in support of the project objectives, and may include the flexibility of the Proposal to adapt to possible changes over the life-cycle; and/or

e) Innovation: criteria that allow assessment of innovation in the design and/or delivery of the Goods, Works, Non-consulting Services, or Consulting Services and that give Bidders/Proposers the opportunity to include, when appropriate, in their Bids/Proposals, solutions that exceed the requirements or alternative solutions that could deliver better VfM. Depending on the selection method that is chosen, for example RFB with or without Pre-qualification, or RFP with Initial Selection, there are different approaches or processes that can be used to initially select/qualify firms, and to evaluate their Bids/Proposals in order to select the Most Advantageous Bid/Proposal. (World Bank, 2016)

2.3.1.1. World Bank Evaluation and Qualification Criteria

Although there are some basic requirements that the World Bank follows above, it states that the criteria for tenders and the points given to the criteria vary according to the type of the projects. Accordingly, the following evaluation criteria is taken from a construction tender document issued by the World Bank in 2018 and shows the Bank's evaluation criteria and the points assigned criteria.

Section III contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post-qualification. No other factors, methods or criteria shall be used other than specified in this bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Wherever a Bidder is required to state a monetary amount, Bidders should indicate the USD equivalent using the rate of exchange determined as follows :-

- for construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established; or
- Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified in the ITB 32.1. Any error in determining the exchange rates in the Bid may be corrected by the Employer

Evaluation

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in the document (Section VII), Works' Requirements

Key Personnel

The Bidder must demonstrate that it will have suitably qualified (and in adequate numbers) Key Personnel, as described below:

Table 1.key experts and work experience necessary for the Project

No.	Position	Total Work Experience (years)	Experience In Similar Work (years)
1	Project Manager	10 years	7 years
2	Project Engineer	7 years	5 years
3	Environmental Officer	5 years	3 years
4	Health and Safety Officer	5 years	3 years
5	Social & Gender Officer	5 years	3 years
6	Sexual Exploitation, Abuse and Harassment Officer	5 years	3 years

Source: - From World Bank evaluation document 2018

The Bidder shall provide details of the Key Personnel and such other Key Personnel that the Bidder considers appropriate to perform the Contract, together with their academic qualifications and work experience. The Bidder shall complete the relevant Forms in Section IV, Bidding Forms.

Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter:

Table 2.Equipment necessary for the Project

No.	Equipment Type and Characteristics	Minimum Number required
1	Tipper truck (15 cubic meters)	One
2	Concrete Mixer	One
3	Assorted Hand Tools for Construction Purposes	Assorted
4	Site Generator (5KVA)	1

Source: - From World Bank evaluation document 2018

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV

2.3.1.2. Adequacy of the Technical Proposal

The evaluation of the Bidders' Technical Proposal included an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with

its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements. Only proposals having obtained the minimum score of 80 points were considered for further evaluation.

Table 3.Summary of Technical criteria Proposals and points

No	Description	Criterion Description	Points	Strength	Weakness
1	Key Personnel Schedule	Do the key personnel presented by the company possess the requisite educational and experience for the task as required? Are the relevant forms filled and signed?	10		
2	Equipment	Does the equipment presented by the contractor adequate enough the deliver the project? Are the relevant equipment forms filled and signed?	10		
3	Site Organization	Does the site organization plan offered meet acceptable standards for site organization?	10		
4	Method Statement	Is the method statement complete and wholesome that guarantees the perfect implementation within the execution timeframe of the project?	20		
5	Mobilization Schedule	Does the mobilization schedule offered guarantee swift commencement of works?	15		
6	Construction Schedule	Does the construction schedule deliver the project in time?	15		
7	ES Management	Do the ES Management strategies and implementation plans address environmental and social risks related	15		

No	Description	Criterion Description	Points	Strength	Weakness
	Strategies and Implement ation Plans	to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.			
8	Code of Conduct (ES)	Does the code of conduct offered cover most behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)? Are the relevant forms filled and signed?	5		
Total			100		

Source:- From World Bank evaluation document 2018

2.3.2. Chain's Procurement Practices

2.3.2.1. Evaluation Criteria

The selection of a best suitable company for the construction work is not based on the rule of "lowest price wins" but a multi-criteria including price, time, quality and construction plan and company's profile, past performance as well as proposed project team. A detailed tender evaluation criterion is normally specified in the tender document but in some cases prepared by the tender committee one day before the opening of the tenders. A score system, normally a 100-point system, such as the ones shown in Table 3 (adapted from Jiangsu Provincial Construction Commission 1999, No. 335 Document) is used. Table 3 means the points allocated to price components should not be less than 50 while the points for construction plan/strategies should not be more than 20. Likewise, the composition of the project team may gain up to 10 points (but no more than 10 points), and so on so forth. The total maximum points should not exceed 100. Normally, the company obtaining the highest score will be awarded the construction contract. Two major criteria - "price" and "construction plan" are discussed in detail below since they are the most complicated and important components.

Table 4. Tender evaluation criteria used in Jiangsu Province, China (1999)

Component	Points Allocation
Price	≥ 50
Construction plan/strategy	≤ 20
Project learn (Project manager's qualification and performance)	≤ 10
Company past performance, financial capacity	≤ 10
Quality and time guarantee/assurance	≤ 5
Company reputation and qualification	≤ 5
Total	= 100

Source:- From china Jiangsu, 1999

The price component includes both the client's own estimated project price and the bid prices submitted by all bidders. Each of this is validated and then combined using a weighted average and percentage methods to derive a so-called "Reasonable Price". Based on this "Reasonable Price" another price called "Optimal Price" is then derived and used as the contract award price.

2.3.2.2. Construction Plan

The construction plans should include the main strategies that will be used for construction and this plan is worth up to 20 points. The construction plan is evaluated by the experts according to the following criteria:

- if the construction method is advanced and reasonable/logical;
- if the construction plan is scientific, reasonable/logical, and reliable;
- if the quality and safety strategies are reliable;
- if site layout and occupational measure is reasonable/logical and reliable;
- if main construction plant and equipment and labour allocation is reasonable; and
- if the project team (including management and technical personnel) is capable.

The government guidelines recommend that, unless there are major mistakes in the construction plan, the points given to each bid should not be less than 60% of pre-

determined total points. The time given to the experts to evaluate all bid submissions (mainly the construction plans) is normally half to a full day.

2.3.3. Procurement in Africa

A research by Nantege (2011), on procurement management and financial performance of banks in Uganda, case study: Fina Bank Uganda Limited, the main challenges identified as being faced in the management of procurement included; delays in decision making; lack of skilled and technical procurement personnel; lack of buffer stocks and restocking levels; improper records management; delivery failures by suppliers, non-independence of the procurement committee; absence of prequalified suppliers, limited commitment from top managers, ever increasing prices; and hardships in identifying reliable suppliers among others. Another study from Rwanda by Kabega et al. (2016) on effect of procurement practice on performance of public projects in Rwanda revealed that contract administration factors, legal team consultation, finance factors, delivery date factors, and quality of materials consideration while designing procurement contract helped the project to be well managed. Kafile, M. et al. (2018) a research undertaken on Effects of procurement process on project execution in a project management company in Cape Town, South Africa found that lack of training of the entire project team, corruption, favoritism, fraud and delays from suppliers are the major causes of poor procurement.

2.3.4. Public procurement in Ethiopia

Ethiopia historically uses procurement related laws and specific construction works related standard Tender Document prepared previously by Public works (MOC, and MoWUD) and nowadays by Financial and Economic Development (FPPA) Authorities in order to administer Construction service and works procurements.

Until 2005, there was no comprehensive procurement law at a national level. There were only few articles in the civil code regulating the procurement procedure. In 2005, the Federal government enacted a law providing a detailed procedure of Public Procurement (providing the procedures of Public Procurement and establishing its Supervisory Agency Proclamation No. 430/2005.) This law also establishes a federal agency empowered with

regulating the procurement of works, goods and services by Federal agencies (Abrham Y. 2012).

The main aim was to achieve better transparency, efficiency, fairness and impartiality in public procurement and to enable the utilization of the large sum of public money spent on procurement in a manner that ensures greater economy and efficiency by addressing problems encountered in the course of implementation of the proclamation determining the procedures of public procurement of the Ethiopian Federal Government (Keffyalew G. 2011).

A research conducted by Gebremedhin (2017) with topic of Project procurement practice at YaraDallol BV, Dallol Potash Project showed that there is a procurement plan and a Standard operational procedure for all purchases. However, the researcher found that there is a poor monitoring and controlling and closing undertaken with regard to the procurement practice being applied as to what was planned. In Ethiopian airlines a research conducted by Ali (2019) found that there is a well-defined, organized procurement policy in place that is used to procure any goods and services required by the project operating unit and by procurement or material management division. Apparently, the finding of the research revealed that minimal consideration given on some of the common project procurement conducting, monitoring, controlling and closing stages. Another study by Goitom (2016), on assessment of procurement planning practice and its implementation: the case of United Nations Development Programmed (UNDP), Ethiopia County Office revealed that the procurement implementation of the company is negatively affected to large extent possibly by lack of procurement plan at early stage of the project.

2.3.4.1. Laws Related to Procurement

The Ethiopian Federal Government procurement and property administration proclamation no 649/2009 article 33 (1) states six methods of procurement for public goods and services, this open bidding, request for proposal (RFP), two stage tendering, restricted tendering, request for quotation and direct procurement.

The proclamation, however, limits public bodies to use open bidding as the preferred procedure of procurement except as otherwise provided in the proclamation to use other options (article 33(2)). Restricted tendering is allowed only when the required object of procurement is available only with limited suppliers and the cost of the procurement does not exceed the limit in the directive issued by the Ministry; or where a repeated advertisement of the invitation to bid fails to attract bidders in respect of a procurement subject to the directive to be issued by the Ministry (article 49). The total contract value of procurement made by restricted bidding is limited by the federal public procurement directive to 2 million birr for works (article 23.3).

Direct procurement is allowed when there is no competitions for technical reasons and if the required service can be supplied or provided only by one candidate. Or when there is a need of similar service or repetition of works from one supplier and when the total contract value is not exceeding the limit stipulated in the directives (article 51). The maximum contract amount allowed in the directive for direct bidding for works is similar to the restricted bidding (article 9).

The third type of procurement for public bodies is request for proposal (RFP). RFP is allowed only when the public body seeks to obtain consultancy services or contracts for which the component of consultancy services represents more than 50% of the amount of the contract (article 53).

The other two types of procurements are request for quotation and two stage bidding. Request for quotation is allowed when there are readily available goods or for procurement of works or services for which there is an established market, so long as the estimated value of the contract does not exceed an amount stated in the procurement directives issued by the Ministry (article 55). Two stages bidding on the other hand is permitted when it is not feasible for the public body to formulate detailed specifications for the goods or works such as, contract for the purpose of research, experiment, study or development etc. (article 57). The maximum contract amount provided for works in the directive to use request for quotation is 250 thousand birr (article 24.2).

In general, alternative procurement procedures other than the open bidding cannot be applicable for most public bodies' construction contracts as most public bodies' construction contracts are more than the limits specified in the maximum limit provided in the directive. In addition, the conditions set forth for the use of other alternatives are not usually fulfilled for construction work contracts except in rare cases.

2.3.4.2. Examination and Evaluation of Bids

The proclamation defines the successful bidder as follows: the bid that is found to be responsive to the technical requirements and with the lowest evaluated price (article 43(8)). The responsiveness is determined by the technical evaluation of bidders. In order to participate in public procurement, candidates must qualify by meeting the following criteria and such other criteria, as the public body considers appropriate under the circumstances: that they possess the necessary manpower, equipment, financial and technical capabilities; that they have legal capacity to enter into the contract; that they are not insolvent; that they are registered in the suppliers list, that they are not suspended from participating in public procurement in that period; that they have renewed trade license and tax clearance; and that they have a bank account (article 28).

Any requirements required by the public body will be set forth in the bid documents or other documents for solicitation of proposals, and deemed to apply equally to all candidates. In addition, in the process of selecting the successful bidder, the public body should only consider substantially responsive bids for further evaluation and comparison in accordance with the criteria set forth in the bidding documents (article 43(6)).

In addition to the basic requirements defined in the proclamation article 28(1) and in accordance to ITB Sub-Clause 4.5, bidders are required to meet the minimum qualifying criteria set forth in the qualification criteria in the bid document (section 3: evaluation and qualification criteria).

In addition to the basic requirements, in accordance to ITB Clause 22, bidders are required to meet the minimum qualifying criteria set forth in the qualification criteria in the bid document (section 3: evaluation and qualification criteria).

2.3.4.3. Tender Evaluation and Analysis Amendment by Ministry of Works and Urban Development- March 2001

The Ministry of Works and Urban Development (MoWUD) was the authorized public body in the procurement of all works under the Federal Government of Ethiopia until 2006. However, after the establishment of Public Procurement Agency (PPA) in 2006, the procurement of all Federal Government works and services have been guided by the rules and regulations prepared by this agency.

The tender evaluation and analysis approach were modified by the Ministry of Works and Urban Development in March 2001. The basis for the modification were, according to the letter from the Ministry on the 14th day of March 1993 EC, Ref. no H1-T1 240/21, to improve the procurement of public construction works by avoiding abnormally low bids(Bilen A. 2017).

2.3.4.4. Tender Evaluation and Analysis by Public Procurement Agency (PPA) January 2006

The evaluation and qualification on PPA 2006 is depends on section 1, Instruction to bidder and section 2, Bid Data sheet , contain all the factors, methods and criteria that the Employer shall use to evaluate and determine whether a bidder has the required qualification. No other factor, method or criteria shall be used for technical evaluation. It is a two stage bid evaluation system the first one is technical evaluation and the second one is the financial offer. The first one is the technical evaluation; Bidders who score above 70% will be participate for farther financial evaluation. The successful bidder will be the least bidder whose offer is less than the other bidder.

2.3.4.5. Tender Evaluation and Analysis by Property Administration Agency (FPPA) April 2011

According to the methodology defined in the Public Procurement Proclamation and Directive the Public Body shall select the successful Bid by applying the following method:

Lowest Bid Evaluation

The bids shall be examined to confirm that all documentary evidence establishing the Bidders' qualifications requested. After confirming the bids comprise all mandatory documentary evidence establishing the Bidder's qualification the Public Body will rule on the legal, technical, professional, and financial admissibility of each bid, classifying it as compliant or non-compliant with qualification requirements set forth in the Bidding Document. The Public Body will then analyze the bids' technical conformity in relation to the technical specifications, classifying them technically compliant or non-compliant. The Evaluation will continue until determined the substantial responsive with rectification of nonconformities and omissions in bids, if any. The Public Body shall examine all Bids to ascertain whether there are any arithmetic errors in computation and summation.

The Public Body shall notify Bidders on adjusted calculation errors and request bidders to confirm that they accept the correction of the calculation error within the time limit of three days from the receiving of the notification.

The final stage is awarding of the contract the Bidder who's Bid has been determined to be substantially responsive to the Bidding Documents and with the lowest price.

2.3.5. Procurement Process in AADCWB

In May/2018 AADCWB in corporation with Addis Abeba University, prepared a Bidder prequalification criteria for building projects manual to help in the preparation of tender documents. According to the manual, the evaluation is done by points or must meet. The Bidder prequalification criteria for building projects Manual specifies the type of machinery and manpower to be met by level one to level ten contractors. However, neither the bureau nor the sub-cities are not fully implementing the manual. The bureau and the offices under it carry out procurement according to the project type and project cost. That means if the project is G+4 or below and the project amount is less than 24,000,000.00 birr, it will be done in sub-cities, while others will be built by the bureau. The bureau has various structures, two of which are the Design preparation and Engineering procurement section and the contract administration section. Design preparation and Engineering procurement section further divided on Design preparation department and Engineering procurement

department. As the name indicates the Engineering procurement department undertook procurement management process up to contract agreement time after this the contract administration process took place by the contract administration section.

2.3.5.1. Purchase Methods used in AACDCWB

Generally, procurement types can be classified into Competitive and Negotiated Tendering when bidders' coverage is taken as a basis for classification.

The objective of competitive bidding is to acquire the goods, or works, or services at the most economic cost to the project owner. This type of tendering is commonly used for the selection of better and capable winning bidder among the various eligible firms. Competitive bidding can either be Open or Limited Competitive Bidding in the form their invitations.

As their name implies, while Open competitive bidding allows all eligible bidders to participate; Limited competitive bidding allows a number of selected firms decided by the Project Owners in consultation with concerned parties for qualification. The major difference between open and limited competitive bidding is the addition of qualifying criteria beyond eligibility imposed on the procurement type for limited competitive bidding.

Limited Competitive Bidding is often used when the nature and urgency of the work justifies to do so. In this case limited numbers of eligible firms are invited to participate for the bid. Commonly short listed is done, based on the firms past performance, work load at present, presence of a firm in the vicinity of the projects, knowledge of similar type of works before and financial and technical capabilities of the firms. Besides, the listing shall take into account the renewal of licenses of the firm and the specific requirements of the employer. These are some of the qualifying criteria used for Limited Competitive Bidding. In such tendering, bidders cannot be rejected as non-responsive for being unqualified technically. Usually in such type of procurement, cost of projects might be higher than expected. To minimize such effects, capable and competent professionals shall negotiate with the winning firm (F. Lawrence B, 2003).

Negotiated tendering achieves a contract between a client and a contractor by direct negotiation, rather than competitive bidding. This type of negotiation is used to procure services in specialized areas (Wubishet J. 2007).

Negotiated tendering occurs when the client approaches a single supplier based on their track-record or a previous relationship and the terms of the contract are then negotiated.

Negotiating with a single supplier may be appropriate for highly specialist contracts (where there may be a limited number of potential suppliers), or for extending the scope of an existing contract. It can give the client the confidence of working with a supplier they already know, can reduce the duration and costs of tendering and can allow early supplier involvement.

However, unless the structure of the negotiation is clearly set out there is the potential for an adversarial atmosphere to develop, even before the contract has been awarded. Carrying out negotiations in the absence of competition so that both parties feel the outcome is fair can be complex and time consuming.

Negotiated tendering under certain circumstances, which shall be rare in practice. It can be seen as anti-competitive and exclusive, with the potential for relationships to develop between the client and the supplier. Negotiated tendering may not be permitted by some organizations due to the perceived lack of accountability. On public projects, or projects that include a publicly-funded element it may be necessary to advertise contracts. As per AACFB procurement and property administration proclamation no. 17/2009 there are six purchasing methods these are

1. Open Tendering,

2. Request for Proposals

3. Two-stage Tendering,

4. Restricted Tendering,

5. Request for Quotations and

6. Single-source Procurement and

7. From the guide 02/2010 prepared by the bureau there is a Fixed price Purchase. Out of these seven purchasing methods, AADCWB uses the following four purchase methods to procure.

1. Open tender

Open tendering is the preferred competitive procurement method used for acquiring goods, services and construction works. In this purchase type, there are two types of purchase process: National Construction Bid and International Construction Bid. For National Construction Bid purchase, AADCWB set a purchase limit up to 600,000,000.00 (Six Hundred Million Birr) while it allows purchasing internationally above 600,000,000.00 (Six Hundred Million Birr)

The essential requirements of open tendering are to:

• Have neutral and clear technical specifications,

• Be open to all qualified and interested bidders,

• Have objective qualifications criteria,

• Be advertised locally or internationally, when required,

• Have clear and objective evaluation criteria and

• Be awarded to the least-cost provider, without contract negotiations.

It may be argued that although open tendering is supposed to foster competition, it is mostly procedure-based and was primarily designed for the procurement of simple goods.

Eight disadvantages of the open tendering process:

1. Lengthy timeframe for completion of the procurement action,

2. Requires strict adherence to procedures,

3. Assumes existing internal capacity for the completion of clear and precise technical specifications,

4. Restricts suppliers' participation in determining the technical specifications,

5. Limits the possibility of building long-term relationship with suppliers,

6. Focuses only on a least-cost solution,

7. Suppresses innovation, and

8. Excessive formalism may limit supplier participation in the bidding process.

2. Restricted (selective) Tender

Restricted tendering is a procurement method that limits the request for tenders to a select number of suppliers, contractors or service providers. This method of procurement is also called: Limited Bidding and Selective Tendering.

A basic feature of this method is that competition is confined to a limited number of firms, either because they are the only ones qualified to fulfill the requirement, or certain conditions warrant the use of a limited number of firms in order to reduce the time and cost of the selection process.

A procedure should be in place for setting clear parameters for deciding on the number and types of firms that may be invited to submit bids. This would also depend on the stipulations of the public procurement rules.

3. Direct Purchase (procuring from a single source)

Acquiring goods, services and construction works from only one source is referred to as: sole-source procurement, single-source procurement, sole-source selection, and direct procurement. This is clearly a non-competitive procurement method and should be used only under exceptional circumstances; namely:

• In emergency situations,

• When only one firm or individual is qualified to fulfill the requirement,

• For the continuation of previous or additional work that cannot be acquired from another firm or individual due to patent, compatibility issues, or exclusive rights,

• When the use of this method represents a clear advantage over the use of a competitive procurement method,

• For the procurement of related goods that are available only from one source, or

• When other situations stipulated in the procurement rules justify its use.

The use of this method should be preceded by a rigorous justification and approval process. Such justification should clearly identify

(i) The requesting entity,

(ii) Describe the requirement,

(iii) Address why the requirement can only be filled by the identified source,

(iv) Action taken to identify additional sources,

(v) The total cost of the requirement, and

(vi) Any planned actions to preclude the need for procuring from only one source.

4. Fixed price Purchase

One of the duties given to the AACDCWB by Decree No. 74/2014 is to conduct a price study and set a price for construction materials to be built in Addis Abeba. According to this, the purchasing method that is carried out by comparing the contractors who are willing to do the construction at the input price that the bureau will set is known as the fixed price purchasing method.

Since the price of the fixed price procurement process is set by the bureau, there is no price offered by the contractors and the competition is conducted only on technical criteria.

The purchasing process is carried out by:-

1. Registration of contractors who are willing to work will be done according to the guidelines

2. The technical document submitted by the registered contractors will be carried out according to the criteria below

- To carry out the construction according to the set quality (47%)

- Completing the construction on time (33%)
- Completion of construction within the allocated budget (20%)

The winner will be the one with the highest score based on the above evaluation criteria.

2.3.5.2. Procurement Process Steps

On AACFB procurement and property administration proclamation no. 17/2009, the bureau set the following step to be followed when conducting procurement activities:

1. Need Recognition

The need for construction is collected from all the bureaus of the city administration. The information collected from the bureaus will be organized and sent to the city administration with some justification to be approved as an annual plan. Once approved, it will be implemented.

2. Feasibility study

The next step, a feasibility study, is intended to evaluate whether a project is possible, both technically and financially. Additionally, feasibility studies are used to help determine whether a project will be profitable.

Feasibility studies cover many important issues, chief among them being the technical, economic, legal, operational and scheduling issues related to a project. Good feasibility studies should be able to answer questions regarding all these topics.

More specifically, a feasibility study should feature information about whether a project is technically possible, how much it will cost, whether it's in accordance with the law, how operations will work and when it can be completed (Rodney O. 2007).

In the end, whether or not to continue with a project or settle on a specific business plan comes down to the judgment of the project leaders. A feasibility study is not designed to provide a clear yes or no answer. Instead, it acts as a tool that hopefully provides much detailed information as possible so that they can make intelligent and strategic decisions

regarding a project. Feasibility Study Outline is provided to give you guidance on how to proceed with the study and what to include.

3. Technical Specification and Approval of Bid Document

After a feasibility study is approved, engineering procurement department will prepare a tender document based on the information provided by Design preparation department, PPA 2011 and according to the manual prepared by the bureau in collaboration with Addis Ababa University. AACFB procurement and property administration proclamation no. 17/2009 states that the technical specifications and descriptions laying down the characteristics of the goods, works, or services to be procured shall be prepared for the purpose of providing a correct and complete description of the object of procurement and for the purpose of creating conditions of fair and open competition between all candidates. The technical specifications shall clearly describe the public body's requirements with respect to quality, performance, safety and where necessary dimensions, symbols, terminology, marking and labeling or the processes and methods of production and requirements relating to conformity assessment procedures.

Then the prepared specification and biding document will present for the team leader and the team leader by verifies and signs the bid document submitted by the expert and forwards it to the director. The director will verify and sign the tender document submitted to him and forward it to the head of the deputy bureau. The deputy head of the bureau submits the document to the head of the bureau for approval by verifying and signing it. The head of the bureau approves the document and sends it to the department for further action.

2.3.5.3. The Manual used to prepare the tender Document in the Bureau

The manual prepared by the bureau in collaboration with Addis Ababa University. According to the manual, tender evaluation is done in two to ways, one is to evaluate according to must meet criteria, and the other is to evaluate by points and the evaluation of points is based on the coast of the project.

1. Criteria for Construction Work as per FPA Standard Bid Document

As discussed above there are two types of evaluation being implemented by FPA these are;

I. The Bid that is found to be substantially responsive to the professional, technical, and financial qualification requirements, technically compliant in relation to the technical specifications, and with the lowest price.

II. The Bid that is found to be substantially responsive to the professional, technical, and financial qualification requirements, technically compliant in relation to the technical specifications, and with the lowest evaluated bid. The lowest evaluated Bid shall be the bid offering better economic advantage ascertained on the basis of factors affecting the economic value of the bid and determined based on best combined offer

For the first option must meet requirement (Pass/Fail) system should be adopted while for the second option a point system should be adopted, based on criteria that can be adjusted according to country, project sites, scope of work and other factors. In this document both types are addressed and the selection is left for the client. All tenders must be made aware of the evaluation procedure to be followed and whether there are any special conditions involved.

In the following parts of the document prequalification criteria were developed based on project size for both options of evaluation and for this contractor's grade for different project size are used and tabulated as follow (Ministry of urban development & construction, 2013)

2. Project class category and the need for bidders prequalification

Class 1 (megaprojects): refers to projects that have budgets exceeding 5 billion birr and require planning and execution over a very long term (more than two years). It includes government and national institutions have an enormous economic, social, and ecological impact.

Class 2 (large and unique):the investment in this class of project involves more than 2 billion birr as well as long-term planning and execution (more than two years). These projects can share many of the class I features but are unique, with complicated management and implementation systems. Numerous contractors, specialists, and consultants are employed, and the most advanced technologies are used.

Class 3 (complex):requires middle-level planning and execution within a shorter time frame (one to two years). These projects usually have budgets between 1 billion and 2 billion birr. A complex project is not unique, and the problems involved are not overly complicated. Most industrial projects and many public works are categorized as complex.

Class 4 (very large): an investment of between 500 million and 1 billion birr would be considered for this class of project. The projects are carried out with one year of planning or one budget period, with the use of measurable targets. Projects such as housing, earthworks, buildings, and roads can be considered class IV construction projects.

Class 5 (large): an investment of between 200 million and 500 million birr would be considered for this class of project. The projects are carried out with one year of planning or one budget period, with the use of measurable targets.

Class 6 (Medium): Project cost between 100 million and 200 million birr.

Class 7 (small): Project cost between 50 million and 100 million birr.

Class 8 (small): Project cost up to 50 million birr.

Table 5. Project type and requirement for prequalification

Project Class	Project Amount (Birr)	Eligible Bidders/ Contractors	Prequalification
Class 1	More than 5 billion	According to MoC Guideline	Mandatory
Class 2	2 billion to 5 billion	’’	Mandatory
Class 3	1 billion to 2 billion	’’	Mandatory
Class 4	500 million to 1 billion	’’	Mandatory
Class 5	200 million to 500 million	’’	Optional
Class 6	100 million to 200 million	’’	Optional
Class 7	50 million to 100 million	’’	No Need
Class 8	Up to 50 million birr	’’	No Need

Source:- prequalification criteria Volume II, 2018

**** ***Optional***: Decision shall be made based on the specific requirements of the project

PREQUALIFICATION FOR BUILDING PROJECTS USING OPTION I

For all project type the requirement for legal qualification of the Applicant is similar and presented as follow;

Table 6. Legal qualification requirement

Subject	Qualification Requirement	Compliance Requirement				Documentation
		Applicant				Submission Requirements
		Single Entity	Joint Venture, Consortium or Association			
			All Partners Combined	Each Partner	At Least One Partner	
1. Legal Qualification of the Applicant						
1.1. Nationality	Nationality in accordance with ITA Clause 4.2.	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet
1.2. Conflict of Interest	No conflict of interest as described in ITA Clause 6.	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet
1.3. Registration in the FPPA's Suppliers List	Having been registered in the Public Procurement and Property Administration Agency's Suppliers List in accordance with ITA Clause 4.6.	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet
1.4. Debarred by decision of the FPPA	Not having been debarred by decision of the Public Procurement Agency from participating in public procurements for breach of its obligation under previous contracts in accordance with ITA Clause 4.3.	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet
1.5. Government Owned Entity	Compliance with conditions of ITA Clause 4.4.	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bidder Certification of Compliance with attachments

Subject	Qualification Requirement	Compliance Requirement				Documentation
		Applicant				Submission Requirements
		Single Entity	Joint Venture, Consortium or Association			
			All Partners Combined	Each Partner	At Least One Partner	
1.6. Valid business license indicating the stream of business	Having been submitted valid business license indicating the stream of business, in accordance with ITA Sub-Clause 4.5(b)(i).	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet with attachments
1.7. VAT registration certificate	Having been submitted VAT registration certificate issued by the tax authority (in case of contract value of Birr 10,000.00 and above) in accordance with ITA Sub-Clause 4.5(b)(ii).	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet with attachments
1.8. Valid tax clearance certificate	Having been submitted valid tax clearance certificate issued by the tax authority (domestic Applicants only) in accordance with ITA Clause 4.5(b)(iii).	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Submission Sheet with attachments
1.9. Business organization registration certificate	Having been submitted valid business organization registration certificate issued by the country of establishment (foreign Applicants only) in accordance with ITA Clause 4.5(c).	Must meet requirement	Must meet requirement	Must meet requirement	n/a	Bid Certification of Compliance with attachments

Source:- prequalification criteria Volume II, 2018

For all project type the requirement for General and Specific experience, History of nonperforming contracts, Pending litigation and Financial standing of the Applicant and Adequacy of Technical Proposal in responding to the Schedule of Requirements follow the same format presented as follow;

Table 7. Technical qualification requirement

Subject	Qualification Requirement	Compliance Requirement				Documentation
		Applicant				Submission Requirements
		Single Entity	Joint Venture, Consortium or Association			
			All Partners Combined	Each Partner	At Least One Partner	
2. Technical Qualifications, Competence, and Experience of the Applicant						
2.1.General experience	**For Local Contractor: - Two** years firm experience in Construction Sector as Contractor, Sub contractor and Joint Venture. **For Foreign Contractor: - Five** years firm experience in Construction Sector as Contractor, Sub contractor and Joint Venture.	Must meet requirement	n/a	Must meet requirement	n/a	Construction firm License
2.2.Specific experience	**For Local Contractor: -** As a Contractor, Sub contractor and Joint Venture at least One Building Construction Project of **Rise Number Description** within the last Ten (**10)** years, with a value of at least ETB **Estimated project amount** that have been successfully and substantially completed (**75 %**completed) or two similar building projects of **Rise Number Description** with value	Must meet requirement	Must meet requirement for all characteristics	n/a	Must meet requirement for one characteristic	Letters from the Employer which indicates Project Amount and Progress.

	of each not less than ETB **Half of the estimated project amount** that have been successfully and substantially completed (**75 %**completed). For project cost exceeds **ETB 1,000,000,000.00 (one billion birr)** three similar building projects of **Rise Number Description** with value of each not less than ETB **One third of the estimated project amount** that have been successfully and substantially completed (**75 %**completed). **For Foreign Contractor: -** As a Contractor, Sub contractor and Joint Venture at least Two Building Construction Project of **Rise Number Description** within the last Ten (**10)** years, with a value of at least ETB **Estimated project amount** that have been successfully and substantially completed (**85 %**completed) Supporting evidence letter for satisfactory performance from the employer which clearly mention the project amount, commencement date, project duration, completion date, timely performance and quality performance are mandatory and must be attached. In addition the bidder shall present contract agreement (form of agreement) and recent payment certificates. Note:- The rise number description requirement for local contractor shall be one level less					
2.3.History of non-performing contracts	Non-performance of a contract did not occur within the last **5 years** prior to the deadline for Bid submission, based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute	Must meet requirement by itself or as partner to	n/a	Must meet requirement by itself or as partner to	n/a	Bidder Certification of Compliance

	Resolution Mechanism under the respective contract, and where all appeal instances available to the bidder have been exhausted. Bidder Should submit his supportive evidence.	past or existing JV		past or existing JV		
2.4. pending litigation	All pending litigation shall in total not represent more than 5 percent of the Bidder's net worth and shall be treated as resolved against the Bidder. Bidder should submit his supportive evidence. A consistence history of litigation or arbitration awards against the applicant or any partner of a joint venture my result in disqualification.	Must meet requirement by itself or as partner to past or existing JV	n/a	Must meet requirement by itself or as partner to past or existing JV	n/a	Bidder Certification of Compliance
3. Financial Standing of the Applicant						
3.1Historical Financial Performance	Submission of audited balance sheets and other financial statements as required in the BDS Clause 17, for the past **Five years** to demonstrate the current soundness of the Bidder's financial position and its prospective long term profitability. ➢ **Liquidity Ratio** = (Current Asset/Current Liability) shall be Greater than or equals to **1** ➢ **Indebts Ratio** = (Total debt/Total Assets) shall be less than **1** ➢ **Profitability Ratio** = (Net Profit/Income)*100 shall be Greater than or equal to 2% **N.B** - Average of thefive years will be considered for the above three ratios - Total debt means total liability = (Current + Non-current liability)	Must meet requirement	n/a	Must meet requirement	n/a	Bidder Certification of Compliance with attachments

	The submitted value shall be accepted only if it is verified with supporting evidence by external auditors and revenue agency.					
3.2Peak Annual Turnover (Works only)	**Local contractor**: - The Peak annual turnover calculated as total certified construction work payments received for contracts in progress or completed within the past **Five years** must exceed ETB **(Estimated project amount/Estimated project duration in month)*12*1**. **For Foreign Contractor:** The average annual turnover calculated as total must exceed ETB **(Estimated project amount/Estimated project duration in month)*12*2**. **For Joint Venture: -** The average annual turnover calculated as total certified construction work payments received for contracts in progress or completed within the past **Five years** must exceed ETB **(Estimated project amount/Estimated project duration in month)*12*1.5**. The submitted value shall be accepted only if it is verified with supporting evidence by external auditors and revenue agency. The bidder fails to pass the requirement without the original direct auditor's report or authenticated auditor's report document and evidence from revenue.	Must meet requirement	Must meet requirement	The partner in charge Must meet **25 %** of the requirement	The Leader in charger must meet **40%** of the requirement	-External Chartered Certified Audit Report. -Inland Revenue Declaration or Letters which indicates Construction Incomes.
3.3Financial Resources	The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet the cash-flow requirement **ETB 15 million for Grade I** **ETB 10 million for Grade II**	Must meet requirement	Must meet requirement	Must meet % of the requirement	Must meet % of the requirement	-Letter of Credit, Loan or Overdraft Facilities Specific to this project from an accredited Bank. Or Bank

	ETB 5 million for Grade III **ETB 3 million for Grade IV** **ETB 2 million for Grade V** **ETB 1 million for Grade VI** **ETB 0.5 million for Grade VII** **ETB 0.2 million for Grade VIII** **ETB 0.1 million for Grade IX & X**					statement for the past six months from the date of bid invitation; (Bank statement shall show the specified amount when taking average of the maximum amount at a certain date in each month).
4. Participating Micro and Small Enterprise (MSE)/local contractor as a Sub-contractor						
A Proposal to participate MSE/local contractor as a sub-contractor as per the directive prepared by Addis Ababa City Administration Construction Bureau (1/2009). **a) For grade IV and less local contractor: -** Detail list of works proposed to be sub-contracted to MSE (Minimum five kinds of work if the project can accommodate more than five MSE if not list of all kinds of work can be executed by MSE). In terms of cost it should be a minimum of 40% of total project amount. **b) For grade III and above local contractor: -** Detail list of works proposed to be sub-contracted to grade IV and less local contractor (Minimum 40% of the total project amount). **c) For foreign contractor: -** Detail list of works proposed to be sub-contracted to local contractor (Minimum 20% of the total project amount).	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet

5. Adequacy of Technical Proposal in responding to the Schedule of Requirements					
a) Method Statement (Technical approach and methodology): Note: - The statement shall address a general description of the method including the sequence, by month and by nature which the bidder proposes to carry out the works specific to this project.	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet
b) Work, Manpower, Machinery and Materials schedule: - Specific to this project Give a brief outline of the program for the completion of the works in accordance with the required methods of construction and stated time completion. Attach construction program and detailing the relevant activities	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet
c) Detail description of Safety and Environmental Measures: - Specific to the project	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet
d) Comprehensive site visit report addressing temporary facilities and services and site layout plan	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet
e) Detail project organizational structure: - Specific to the project	Must meet requirement	Must meet requirement for all characteristic	n/a	n/a	Bid Submission Sheet

Source:- prequalification criteria Volume II, 2018

Table 8. Technical criteria and points

No.	Criteria type	Point given to the criteria
1	Legal Qualification of the Bidder	Mandatory
2	Professional Qualifications and Capability of the Applicant	15
3	Technical Qualifications, Competence, and Experience of the Applicant	55
3.1	General Experience	10
3.2	Specific Experience	20
3.3	History of Non performing Contract	Mandatory
3.4	Pending Litigation	Mandatory
3.5	Equipment for the implementation of the contract	25
4	**Financial standing of the Bidder**	**20**
4.1	History of financial performance	8
4.2	Average annual turn over	8
4.3	Financial resources	4
5	Participating Micro and Small Enterprise (MSE) as a sub-contractor	Mandatory
6	Adequacy of technical proposal in responding to the schedule of the requirement	10
6.1	Method Statement (Technical approach and methodology): - A general description of the method including the sequence, by month and by nature which the bidder proposes to carry out the works specific to this project	3
6.2	Work, Manpower, Machinery and Materials schedule: - Specific to this project (Give a brief outline of the program for the completion of the works in accordance with the required methods of construction and stated time completion.)	2
6.2.1	Work	0.5

6.2.2	Manpower/Labor	0.5
6.2.3	Equipment/Machinery	0.5
6.2.4	Material Delivery	0.5
6.3	Detail description of Safety and Environmental Measures: - Specific to the project	1
6.4	Comprehensive site visit report addressing temporary facilities and services and site layout plan	1
6.5	Detail project organizational structure: - Specific to the project	1
6.6	Completeness of documents (Page No., Summary page, Table of content, references of documents attached and clear copy)	2
	Total	100%

Source: - adapted from prequalification criteria, 2018

2.3.5.4. Invitation of Bidders

Tendering is the process by which bids are invited interested body to carry out specific packages of construction work. It should adopt and observe the key values of fairness, clarity, simplicity and accountability, as well as reinforce the idea that the distribution of risk to the party best placed to assess and manage it is fundamental to the success of a project.

Once the biding document is approved, the next stage will be inviting of bidders to participate on the required purchase. The invitation will announce in to AdisZemen and Ethiopian Herald Newspaper, and the Official website of AADCWB. The time allowed for the preparation of bids is in accordance of the purchase method and complexity of the purchase set on the procedure.

2.3.5.5. Evaluation and Awarding

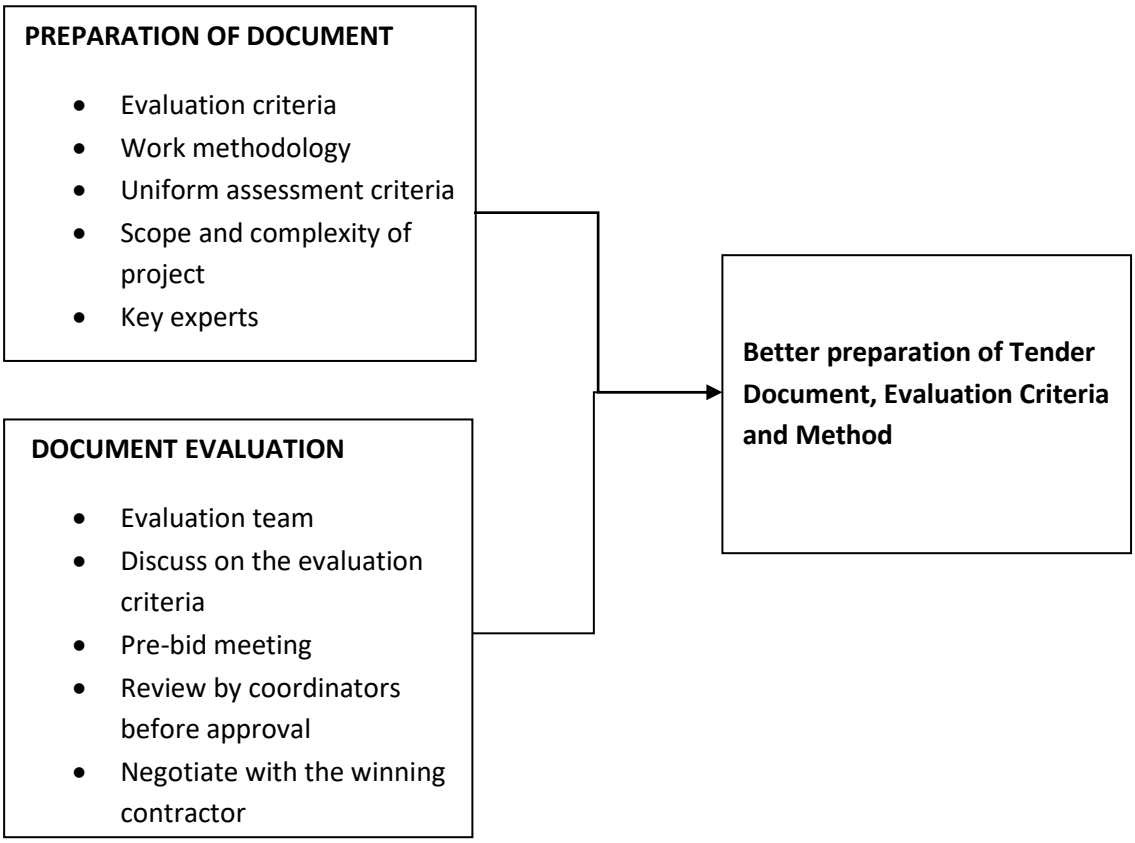
In this stage, Bidders who are interested to participate in the bid will submit their proposal on the specified time which is stated on the bid invitation. Then the tender opening committee will open the technical proposal of all bidders. However, bid proposal which did not submit at the specified time frame will automatically reject from bid process. After all biding documents are opened, the committee shall hand over the tender documents they

have opened to the experts assigned to evaluate the technical documentation. When the experts complete the evaluation, they submit the overall results to the team leader. Bidders who score 70 and above will be qualified for financial opening.

The tender opening committee will open the financial documents of the successful bidders who passed the technical evaluation and hand them over to the designated experts to carry out the financial evaluation. The lowest bidder will be given a letter announcing the winning of the bid and the amount of money won. After award letter given to the winner, the Engineering procurement department will prepare a contract document in accordance with the bid document and PPA 2011. After that, the AADCWB and the winner will sign the contract. However, before the two bodies came to the contract signing stage, the AACJB will check the prepare contract is correct in face of Ethiopian law. On the other hand, the winner will take a draft contract document and check all the terms and conditions are correct. Then the signed contract will forwarded to contract administration team for follow up.

2.4. Conceptual Framework

The following conceptual frame work has been developed for the purpose of the study based on the literature review. It includes ideas on identifying the title of the study, the problem to be studied, the previous studies done to be searched, theories that should be used, which methodology to be used, It is an arranged logic that helps how ideas relate to each other and can be expressed by using a graph or in a narrative indicating variables to be studied & the relationship among variables (Adom et al, 2018).



Source: - from variable of formulation of criteria

Figure 1. Diagrammatical representation of the variable interrelationships

CHAPTER THREE
3. RESEARCH METHODOLOGY

3.1 Introduction

This section of the research study deals with research design and approach, target population, sampling techniques and sample size, type and sources of data, data collection tools, methods of data analysis, validity and reliability and ethical consideration.

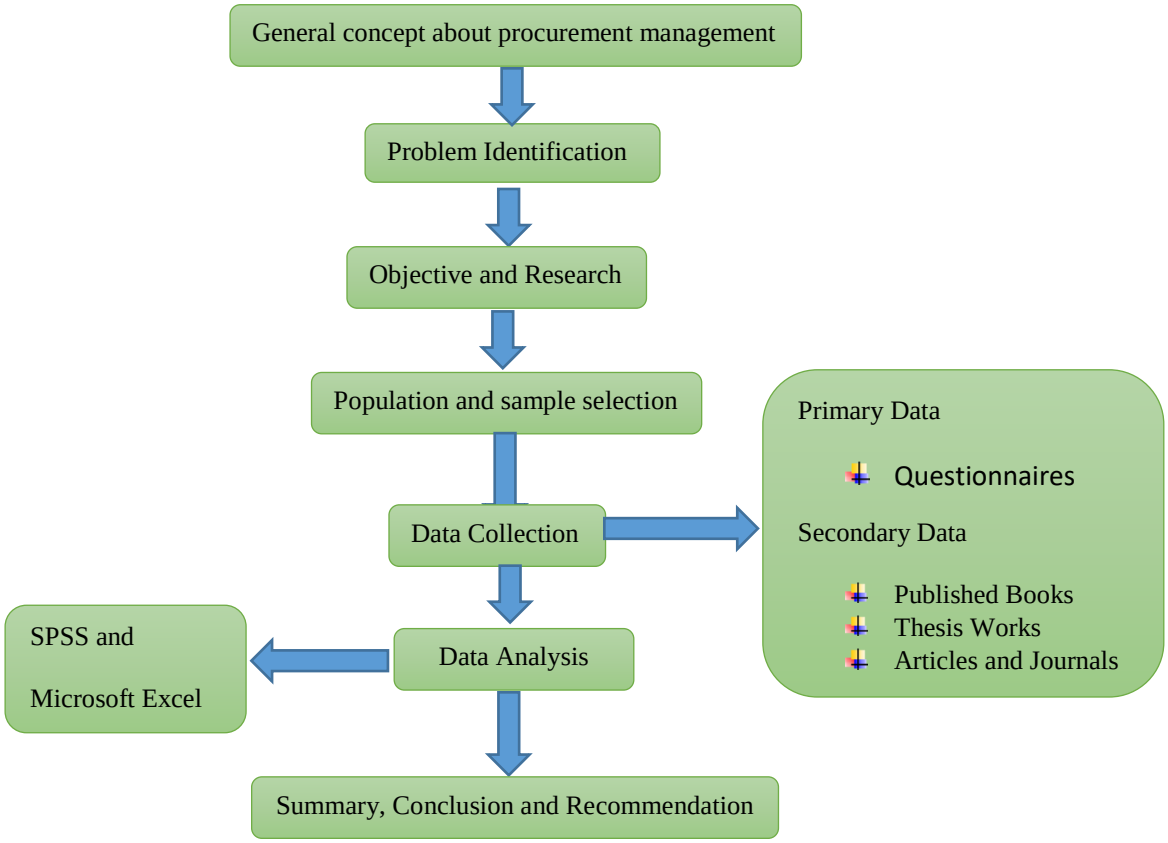
3.2. Research Design and Approach

A research design is a broad plan that states objectives of research project and provides the guidelines what is to be done to realize those objectives. The design of this research is chiefly used descriptive research approach because the aim of this research is to assess procurement management practice on Addis Ababa Design and Construction Works Bureau and the eleventh sub-cities design and construction works offices under it. To realize this objective, the study set a specific objective to describe the existing procurement management practice of the AADCWB and the eleventh sub-cities design and construction works offices under it and to formulate a better bid evaluation framework. Descriptive research design is typically concerned with describing the characteristics of a phenomenon. It can be used for the purpose of estimates of the proportions of a population that have these characteristics (Cooper & Schindler, 2014).

According to Creswell (2003) the decision of what method a researcher employs depend on (a) the research problem, (b) the researcher's experience, (c) the reporting audience, (d) whether the researcher wants to specify the kind of information to be collected or let it arise from the data being collected, and (e) whether data to be collected is numeric or text.

In this research, a quantitative research approach which number is used to explain the finding. Quantitative research is an approach for testing objective theories by examining the relation-ship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures (Creswell, 2003).

The researcher's research procedures shown in figure 2 as following.



Source:-Researcher designed scheme

Figure 2. Research Procedures

3.3. Data Types and Sources

The researcher employed both primary and secondary data sources to get relevant information for this investigation. The primary sources are original data gathered from the sample size they are from AADCWB and the eleventh DCWO employees who has working on procurement department. Any data that were acquired from any written document (websites, the bureau's report, books, proclamations and published journals) is considered a secondary source of data. The researchers reviewed the findings and conclusions linked to the topic in order to strengthen the study's results and findings. This allows examining what other people said about the issue, as well as how their results and recommendations relate to the research being doing.

3.4. Target Population

According to Bryman and Bell (2011), population is basically the universe of units from which the sample is to be selected. The term 'units' is employed because it is not necessarily people who are being sampled. The researcher may want to sample from a universe of nations, cities, regions, firms, etc. Thus, 'population' has a much broader meaning than the everyday use of the term, whereby it tends to be associated with a nation's entire population. Therefore, seventy-six(76) experts were included in this study, and they were experts and team leader employed in the engineering procurement department of the AACDCWB and experts, team leaders and coordinators who are employed under the engineering procurement department of the DCWO of sub-cities.

3.5. Sample Size and Sampling Technique

A stratified random sampling technique was used to identify the sample units. Where a population divides into strata, and then the random sample is taken from each stratum in proportion to its size. A sample of 64 participants is used to which a questionnaire is distributed. The sample units included experts, team leaders, and coordinators involved in the procurement process. The benefit of using a stratified random sampling is

- More reliable and less expensive than other types of sampling methods
- Improved precision and ability to generalize the data results
- Easier to identify certain characteristics within a subgroup
- Allows researchers to select a sample that represents the different socio-economic characteristics of the subgroups

The sample will be calculated using Yamane (1967:886), a 95% confidence level. Which has ideal formula for populations of targeted population 76?i.e.

$$n=N/1+N(e)2$$

Where n- is the sample size

N- Is the population size N=76 and

e is the level of precision. e=0.05

n=76/1+76(0.05)2 n=64

3.6. Data Collection Tools

Primary data was gathered through questionnaire which was prepared and administered based on literature review related to the subject of the study. The reviewed literatures were made to develop an insight on project procurement management process on which the questionnaires are designed and used as tool to collect data. A five point Likert(1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree) questionnaire was used to measure the level of agreement or disagreement. Likert scale is good in measuring attitude of respondents.

3.7. Data Processing and Analysis

The study used Statistical Package for Social Sciences (SPSS) version 26 and Microsoft office excels 2013 for data analysis and interpretations. The quantitative data gathered by close-ended questioners was analyzed by using the production of all descriptive statistics, percentage, frequencies, mean, and standard deviation that helps the researcher answer the research questions and meets the objective of the study.

The computation of the descriptive statistics (frequency, percentage, mean and standard deviation) may be used to determine the level of the relationship between variables to conclude. Mean is the average or the most common value in a collection of numbers, it is a measure of the central tendency of the probability distribution along median and mode. Standard Deviation - measures the spread of data about a mean value. Useful in comparing sets of data, which may have the same mean but a different range.

The relative importance index method (RII) was used to determine and rank the performance problems. The relative importance index is computed using the formula below; (Ugwu, 2007)

$$RII = \Sigma\ W/A \times N\ (0 \leq RII \leq 1)$$

Where: RII is relative importance index,

W is the weight given to each factor by the researcher.

A is the highest weight, and

N is total number of respondents

The Relative Importance Index (RII) was calculated for each item and ranked accordingly. The findings from the analysis were presented using tables interpreted to reach valid conclusions. The principal purpose is to check the impact of the identified factors presented in order to formulate a better tender document and evaluation criteria.

3.8. Validity and Reliability Test

The material validity of the study was assured by testing a variety of data sources, including previous research and expert interviews and this helps to improve and update the model and interventions. The study arranged the questionnaire according to the systematic goals to ensure construct validity which are the contributions for the accuracy of the questions. The other validity issues is internal validity, the study relies on explanations derived from procurement management theory and existing literature, as well as competing explanations for the findings. The study used Cronbach's Alpha coefficient value to verify the reliability. Serkam (2015) indicated that Cronbach Alpha should be greater than 0.70 to create aconsistent scale and he stated clearly that any scale with a Cronbach Alpha less than 0.70 should be eliminated.

Table 9. Reliability Coefficient of the study variables

Item	N	Cronbach's Alpha
The current construction tender document	10	0.89
The evaluation of construction tender document	8	0.869
Formulation of better evaluation criteria	12	0.897
Overall Variables	30	0.718

Source: Own data SPSS output (2023)

3.9. Ethical Consideration

As a result, to secure the consensus of the research, the study communicated the details and the aims of the study. And the researcher stated to the participants that they have to participate in the research willingly. Moreover, the researchers ensured to the respondents were not to disclose their names, position and personal information.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

The fourth chapter presents the interpretations, discussions and analysis of the study data were collected through questionnaires. The data has been analyzed using descriptive statistics. To examine the collected data with that of the objective set for this research, Statistical procedures were carried out using SPSS software version 26 and Microsoft office excels 2013which enables to enter data and perform descriptive analysis. Based on the major theme of the research, the researcher represented the findings from each objective and answered the research questions. The output of the analysis is presented using frequency, mean, standard deviation and RII.

4.2. Response Rate

The study set out to investigate a total of 64 questionnaires from employees of Addis Abeba Design and works bureau and the eleven sub-cities under it that were selected to take part in the study. From the 64 questionnaires distributed a total of 62 responses were received. The overall response rate was 96.9% this response rate was deemed substantial to draw conclusions about the entire population of Addis Abeba City Design and construction works bureau and the eleven sub-cities under it.

Table 10. Response Rate

Category of respondents	Questionnaire distributed	Questionnaire returned	Response rate
Coordinators	9	9	100%
Team leaders	10	10	100%
Experts	45	43	95.6%
Total	64	62	96.9%

Source:- own survey, 2023

4.3. Demographic Characteristics of Respondents

The section shows participants' experience according to their categories such as gender, level of education, year of work experience, year of work experience on procurement and current responsibility.

Table 11. Demographic Information of the respondents

		Frequency	Percent	Cumulative percent
Gender	Female	29	46.8	46.8
	Male	33	53.2	100
	Total	62	100	
Level of Education	Degree	49	79.0	95.2
	MSc/MA	13	21.0	100
	Total	62	100	
Years of Work Experience	2 - <4 years	14	22.6	22.6
	4 - <6 years	17	27.4	50.0
	6-<8 years	5	8.1	58.1
	8 years and above	26	41.9	100
	Total	62	100	
Years of work experience on procurement	0- <2 years	20	32.26	32.26
	2 - <4 years	17	27.42	59.68
	4 - <6 years	10	16.13	75.81
	6-<8 years	8	12.90	88.71
	8 years and above	7	11.29	100
	Total	62	100	
Current responsibility	procurement officer	43	69.35	69.35
	procurement team leader	10	16.13	85.48
	Coordinator	9	14.52	100
	Total	62	100	

Source:- own survey, 2023

The above table shows participants' experience according to their categories such as gender, level of education, year of work experience, year of work experience on procurement and current responsibility. The total number of the respondents was 62 and they were made of 9(14.52%) coordinators, 10(16.13%) team leaders and 43(69.35%) procurement officers. The study found that 53.2% of the respondents are Male while 46.8% of the respondents are Female. This indicates that there is fair gender distribution. Looking at Educational Level of the respondents, 79.0%% of the respondents hold first degree education and the remaining 21.0% of the respondents have second degree (MSc/MA).This implies that information was collected from respondents who have wider academic knowledge area.

Regarding on general working experience in the organization, 22.6% of the respondents have been working for 2 - <4years, 27.4% of the respondents have 4-< 6years, 8.1% of the respondents have 6-< 8 years and 41.9% of the respondents have 8 years and above working experience. Therefore, the majority of the respondents (41.9%) have been working 8 years and above working experience.

Regarding experience on the construction procurement activity, 32.26% of the respondents have been participating on procurement activities for 0 - < 2 years, 27.42% of the respondents have been participating on procurement activities for 2 - < 4 years, 16.43% of the respondents for 4 - < 6 years, 12.90% of the respondents for 6 - < 8 years and 11.29% of the respondents for 8 years and above.

4.4. Regarding the Preparation of the Current Construction Tender Document

In order to assess the preparation of construction tender document practice in AACDCWB, the researcher calculated means, standard deviation, percentages and level for each items and finally calculate average value and level for each process to draw a conclusion

The following tables depicts the response result regarding the current construction tender document preparation

Table 12.Regarding the Preparation of Construction Tender Document

		SD	Dis	Ne	Ag	SA	M	SD	L.
1	A feasibility study is conducted before the tender document prepared	50 (80.6%)	8 (12.9%)	-----	4 (6.5%)		1.32	.785	S.D
2	The tender document is prepared according to the tender document preparation of PPA manual or other similar recommended practice	4 (6.5%)	6 (9.7%)	3 (4.8%)	17 (27.4%)	32 (51.6%)	4.08	1.245	Ag
3	Tenders are always issued at a favourable time for construction	23 (37.1%)	25 (40.3%)	-----	9 (14.5%)	5 (8.1%)	2.16	1.296	Di
4	The tender document is prepared considering the size and complexity of the project	22 (35.5%)	31 (50.0%)	1 (1.6%)	6 (9.7%)	2 (3.2%)	1.95	1.031	Di
5	During the preparation of the tender document, the current construction amended directives are considered	34 (54.8%)	20 (32.3%)	3 (4.8%)	5 (8.1%)	-----	1.66	.904	S.D
6	A discussion will be held with various experts on the preparation of tender document	57 (91.9%)	5 (8.1%)	-----	-----	-----	1.08	.275	S.D
7	It gives the necessary attention to working methodology during document preparation	19 (30.6%)	33 (53.3%)	-----	10 (16.1%)	-----	2.02	.983	Di
8	Due consideration is given to project completion time during document preparation	44 (71.0%)	15 (24.2%)	1 (1.6%)	1 (1.6%)	1 (1.6%)	1.39	.754	S.D
9	Experts who are necessary for the work of the project will be included in the evaluation criteria	31 (50.0%)	18 (29.0%)	-----	10 (16.1%)	3 (4.8%)	1.97	1.267	Di

10	In the evaluation criteria, the necessary machinery for the project will be included in detail	5 (8.1%)	6 (9.7%)	1 (1.6%)	10 (16.1%)	40 (64.5%)	4.19	1.329	Ag
	Weighted average						2.18		

Source own survey, 2023

Note;- SD=Strongly Disagree, Dis=Disagree, Ne=Neutral, Ag=Agree, SA=Strongly Agree, M=Mean, SD=Standard Deviation, L=Level

Table 12 shows that the total score of construction tender document preparation practice achieved a mean of 2.18 and which indicates a disagree level of the current construction procurement document preparation.

According to the above table, the result of the response regarding the feasibility study before the preparation of the tender document is a mean of 1.32 (strongly disagree level), which shows that the feasibility study is not carried out and because of this, the tender document is prepared without considering the existing condition of the construction site. The result of the response regarding the current construction amended directives is a mean of 1.66 (strongly disagree level), which shows that the revised rules are not taken into consideration during the preparation of the tender document, and as a result, the prepared tender documents lacks clarity, which limits the number of participants and becomes unreliable. Regarding the participation of various experts in the tender document being prepared, the result obtained from the respondents is a mean of 1.08 (strongly disagree level), so it means that various experts do not participate during the preparation of the tender document. Construction work, by its nature, involves a variety of professionals, and if different experts are not consulted during document preparation, problems will arise during document review. The other one, which was given a mean of 1.39 (strongly disagree level) by the respondents, is that due attention is given to project completion time during document preparation, and the resultshows that no attention is given, which affects the work schedule prepared by the bidders and causes not to be completed on time.

A mean of 2.16 (disagree level) were given by the respondents is the fact that tenders take construction start time into consideration, this shows that when tenders are issued, they do not give due attention to the start time for construction, and this will affects the quality and

completion time of projects as it will be difficult to start the construction on time when there is a high amount of rain. A mean of 1.95 (disagree level) were given by the respondent for, the scope and complexity of the project is taken into consideration when preparing a tender document, the result shows that the scope and complexity of the project is not considered when preparing the document. As we know, construction requires various experts and machinery depending on its scope and complexity, so if we prepare a tender document without taking this into consideration, it will cause serious problems during the evaluation and construction process. When we look at the mean value 2.02 (disagree level) given to the one who gives due attention to work schedule during document preparation in the table 12, we understand that due attention is not given. A work schedule shows the overall flow of work and the experts necessary for the work and indicates the delivery time of the machinery, if this task is not performed properly, it will create problems during document evaluation and project execution. Another point given by respondents a mean of 1.97 (disagree level) is regarding the inclusion of experts necessary for the work in the tender evaluation criteria, and as we can see from the result, it is not give much attention and it is difficult to perform a construction in the absence of qualified experts.

The point given by the respondents who said that the tender document is prepared according to the manual of the tender document prepared by the bureau and PPA 2011 is a mean of 4.08 (agree level) and also the point given by the respondent for the point that the machinery necessary for the construction is included in the evaluation criteria during the preparation of the tender document is a mean of 4.19 (agree level). From the response to both points, we can understand that document preparation is done according to the manual prepared by the bureau and PPA 2011, and due attention is given to necessary machinery for the work.

4.5. Regarding the evaluation of the construction tender document

In order to assess the evaluation of construction tender document practice in AACDCWB, the researcher calculated means, standard deviation, percentages and level for each items and finally calculate average value and level for each process to draw a conclusion

The following tables depicts the response result regarding the evaluation of the current construction tender document

Table 13.Regarding the Evaluation of Construction Tender Document

		SD	Dis	Ne	Ag	SA	Mean	SD	Level
1	Tender document evaluation is performed by assigned professional evaluation teams	35 (56.5%)	14 (22.6%)	-----	6 (9.7%)	7 (11.3%)	1.97	1.414	Di
2	The assigned professionals who carry out the tender document evaluation have sufficient experience over the area of construction tendering	43 (69.4%)	12 (19.4%)	1 (1.6%)	4 (6.4%)	2 (3.2%)	1.55	1.035	S.D
3	The tender document evaluation will be done according to clearly stated evaluation criteria	4 (6.4%)	6 (9.7%)	1 (1.6%)	25 (40.3%)	26 (42.0%)	4.02	1.194	Ag
4	Adequate time is given for tender document evaluation process	48 (77.4%)	8 (12.9%)	1 (1.6%)	4 (6.5%)	1 (1.6%)	1.42	.933	S.D
5	During the tender document evaluation, due attention is paid to the working methodology	40 (64.5%)	14 (22.6%)	2 (3.2%)	4 (6.5%)	2 (3.2%)	1.61	1.046	S.D
6	The technical evaluation of fixed price tender will be done according to the set criteria	57 (91.9%)	5 (8.1%)	-----	-----	-----	1.08	.275	S.D
7	Appropriate monitoring will be done by coordinators during tender document review	16 (25.8%)	32 (51.6%)	-----	8 (12.9%)	6 (9.7%)	2.29	1.260	Di

8	Before the contractual agreement is made, there will be a discussion with the winning contractor about the work methodology	60 (96.8%)	2 (3.2%)	-----	-----	-----	1.03	.178	S.D
	Weighted average						1.87		

Source own survey, 2023

Note;- SD=Strongly Disagree, Dis=Disagree, Ne=Neutral, Ag=Agree, SA=Strongly Agree, M=Mean, SD=Standard Deviation, L=Level

Table. 13 shows that the total score of construction tender document evaluation practice achieved a mean of 1.87 and which indicates a disagree level of the current construction procurement document preparation.

As we can see from the above table.13, the mean of 1.66 (strongly disagree) was given to the respondents who said that the expert who perform evaluation of tender document have sufficient experience in the evaluation of construction tender documents, and this shows that the evaluators do not have enough experience in the field. If the evaluators do not have enough experience in the construction tender document, they do not understand the evaluation criteria well, so they do not pay due attention to them, and a qualified contractors may not be selected for the work, and the project performance will be poor. The mean of 1.42 (strongly disagree) was given by the respondent who said that the evaluation of tender documents is given enough time, the result shows that the evaluation is not given enough time. If the evaluation is done quickly, it will make the evaluation biased because the expert will not understand the evaluation criteria and not give the appropriate point for each criteria. The mean given by the respondents that they pay enough attention to work methodology during tender evaluation is 1.61 (strongly disagree). As we can see from the result, it means that no attention is given to work methodology during tender evaluation. If the proposed work methodology is not measured in an appropriate way, it will be difficult to monitor and control during the construction period, and it will cause problems in the performance and quality of the project. The result given by the respondents for selecting the contractors during the fixed price bidding process is a mean of 1.08 (strongly disagree)

which indicates that technically qualified bidders are not selected according to the guidelines. During the fixed price bidding process, evaluation is done only as a technical evaluation, which if not done properly, will cause serious problems in project implementation. The result of a mean 1.03 (strongly disagree) for the respondent who say that the work methodology is discussed with the winning contractor before signing the contract shows that no discussion is held. Discussion on the work methodology prior to commencement of work will greatly contribute to correcting gaps in the methodology and addressing gaps early in construction.

The result of a mean 1.97 (disagree) given by the respondents for the evaluation of bids is done by team, which shows that the evaluation is not done by team. Due to the complex nature of construction tenders, conducting the bid evaluation by only one expert may not give the appropriate result and it may also expose to inappropriate practices. The result given by the respondents who said that the bidding process is properly monitored by the coordinators is a mean of 2.29 (disagree), which indicates that there is no proper monitoring, and the lack of proper monitoring during the evaluation of the tender will have a negative impact on the results of the evaluation because it will lose the opportunity to discuss and correct gaps that appear during the evaluation. Another result a mean of 4.02 (agree) was given by the respondents to the point that the evaluation of tender documents is done according to the prepared evaluation criteria and we can understand from the response that the evaluation is done according to the pre-prepared evaluation criteria.

4.6. Regarding the formulation of better evaluation criteria

In order to formulate a better evaluation criterion for the AACDCWB, the researcher calculated means, standard deviation, percentages and level for each items and calculate the waited mean value and level for each process to draw a conclusion. In addition, a relative important index (RII) analysis was conducted was conducted to verify the importance of each of the criteria presented.

The following tables depicts the response result regarding the development of better evaluation criteria

Table 14.Regarding the Development of Better Evaluation Criteria

		SD	Dis	Ne	Ag	SA			Level
1	The manual prepared by the bureau should be revised regarding the evaluation criteria and the points given	-----	-----	1 (1.6%)	24 (38.7%)	37 (59.7%)	4.58	.529	S.A
2	The point given to work methodology should be improved	-----	-----	-----	9 (14.5%)	53 (85.5%)	4.85	.355	S.A
3	It is good if a uniform evaluation standard is prepared	-----	8 (12.9%)	-----	18 (29.0%)	36 (58.1%)	4.32	1.004	S.A
4	When preparing a tender document, the scope and complexity of the project should be taken into consideration	-----	-----	-----	7 (11.3%)	55 (88.7%)	4.89	.319	S.A
5	For key experts involved in the work should be given the appropriate points on the evaluation criteria	-----	-----	-----	24 (38.7%)	38 (61.3%)	4.61	.491	S.A
6	During the evaluation, the work methodology submitted by the bidders should be evaluated by contract management experts	5 (8.1%)	7 (11.3%)	1 (1.6%)	38 (61.3%)	11 (17.7%)	3.69	1.139	Ag
7	The evaluation of the tender document should be done by a team.	-----	-----	-----	10 (16.1%)	52 (83.9%)	4.84	.371	S.A
8	The experts assigned to the document review should be selected based on the scope and	4 (6.5%)	10 (16.1%)	-----	21 (33.9%)	27 (43.5%)	3.92	1.297	Ag

	complexity of the project								
9	Evaluators should discuss the tender requirements before conducting document evaluation	-----	2 (3.2%)	-----	10 (16.1%)	50 (80.6%)	4.74	.626	S.A
10	A discussion regarding the project should be held with the bidders before the bidders submit their bid document	-----	-----	-----	15 (24.2%)	47 (75.8%)	4.76	.432	S.A
11	The result of the document evaluation carried out by experts must be reviewed by the coordinators before approval	-----	2 (3.2%)	-----	14 (22.6%)	46 (74.2%)	4.68	.647	S.A
12	Prior to awarding a contract, the proposed work schedule must be discussed with the winning contractor.	-----	-----	1 (1.6%)	19 (30.6%)	42 (67.7%)	4.66	.510	S.A
	Weighted average						4.55		

Source own survey, 2023

Note;- SD=Strongly Disagree, Dis=Disagree, Ne=Neutral, Ag=Agree, SA=Strongly Agree, M=Mean, SD=Standard Deviation, L=Level

Table. 14 shows that the total score of formulation of a better evaluation practice achieved a waited mean of 4.55 and which indicates a strongly agree level of the development of a better evaluation criteria. Twelve points were presented to the respondents asking if they should consider improving the preparation of the construction tender document, evaluation criteria and evaluation method, which is currently being worked on by the AACDCWB, and the respondents answered two by saying they agree and ten by saying they strongly agree.

The two ideas that were answered in agreement and that should be improved during the tender document evaluation, one is that the work schedule submitted by the bidders should be evaluated by contract management experts, and the second idea is that the experts assigned to the tender evaluation should be done considering the scope and complexity of the project. Out of the ten points that were answered by the respondents saying that they strongly agree, three are related to the tender evaluation criteria, and these are the criteria in the manual prepared by the bureau and the point given to the criteria should be improved; the point given to the work schedule should be adjusted and the point given to key experts should be adjusted. Out of the ten points that the respondents strongly agree with, two are related to the preparation of the tender documents, and they say that there should be a uniform tender evaluation criteria and that the scope and complexity of projects should be taken into account when preparing tender documents. The remaining five of the ten points are presented in the evaluation of tender documents, which are that bid document evaluation should be done as a group; Evaluators should discuss the evaluation criteria together before evaluating a bid document; before bidders return bid documents, there should be a discussion with the bidders about the nature of the project; the result of the evaluation tender documents must be confirmed by the coordinators before being approved by the manager and there should be a discussion on the proposed work methodology before signing the contract with the winning bidder.

Table. 15. RII Regarding the Development of Better Evaluation Criteria

Item	RII	Rank
When preparing a tender document, the scope and complexity of the project should be taken into consideration	0.977	1
The point given to work methodology should be improved	0.971	2
The evaluation of the tender document should be done by a team.	0.968	3
A discussion regarding the project should be held with the bidders before the bidders submit their bid document	0.952	4
Evaluators should discuss the tender requirements before conducting document evaluation	0.948	5

The result of the document evaluation carried out by experts must be reviewed by the coordinators before approval	0.935	6
Prior to awarding a contract, the proposed work schedule must be discussed with the winning contractor.	0.932	7
For key experts involved in the work should be given the appropriate points on the evaluation criteria	0.923	8
The manual prepared by the bureau should be revised regarding the evaluation criteria and the points given	0.916	9
It is good if a uniform evaluation standard is prepared	0.865	10
The experts assigned to the document review should be selected based on the scope and complexity of the project	0.784	11
During the evaluation, the work methodology submitted by the bidders should be evaluated by contract management experts	0.739	12

Source:- own survey, 2023

As we understood in the literature review, the main importance of RII is that it is the way to verify how important each idea is to the main idea, and if the score is high, it shows that the impact is significant. According to this idea, when we look at the result of the research, the lowest is 73.9% and the highest is 97.7%, and we understand that the ideas presented by the researcher are highly accepted by the respondents.

4.7. Discussion of Results

According to research papers, it is very important to carry out a feasibility study before preparing a tender document. Because feasibility studies cover many important issues, chief among them being the technical, economic, legal, operational and scheduling issues related to a project. Good feasibility studies should be able to answer questions regarding all these topics. However, looking at the result of the research, it shows that at tender document is prepared without carrying out a feasibility study.

When we look at the AACDCWB tender manual, it is prepared considering the scope and complexity of the projects and it is stated that it is of great importance to complete the projects in the scheduled time, cost and quality, but the result of the respondents show that it is not implemented during the preparation of the tender document.

It is necessary to choose a convenient time to start construction. It is very difficult to start construction at an unfavorable time, even if we are told to do start the construction, it will cause high costs and the quality of the construction will be compromised. The result of the research shows that if we have to pay close attention to the time when we issue a tender and start the construction, as well as the completion time of the construction, it will not be paid attention to during the preparation of the tender documents of the bureau.

In order to carry out the fixed price auction, the bureau prepared and approved the regulation no. 02/2010 and put in to practice. As we have seen in the literature review, the fixed price auction is conducted according to the technical criteria in the manual, evaluating the contractor and making the winning contractor work according to the price studied by the bureau. As we have seen in the result of the research, contractors are selected without technical criteria, so this procedure expose to corrupt practices.

According to the procurement manual of the bureau, when the bureau believes there is a need of bid conference on the bid document or bid amendment (if any), it can invite bidders and record a meeting minute for reference. PMBOK (2019) also states that pre-bidder conferences are used to ensure that all prospective sellers and buyers have a clear, common understanding of the procurement (technical requirements, contract requirement, etc.). It further assists the buyer to incorporate an amendment into the tender document, but when we look at the results of the research, it shows that there is no discussion with the bidders before the return of the tender.

As we can understand from the PMBOK (2019), tender document preparation and evaluation should be done by team and best experienced professionals. This is because the preparation and evaluation of construction tender document requires the participation of various experts and it cannot be done by just one expert and it can lead to malpractices. However, looking at the results of the study, it shows that the evaluation of tender documents is not done by team.

As we have seen from the results of the research, there is no pre-bid discussion with the contractors before they return the tender documents, the result of document evaluation is not seen by the coordinators before approval of the result, and the failure to discuss the work

methodology with the winning contractor before the award is made can cause problems during construction because problems that can be easily solved are entered into construction without being considered and solved.

Work methodology is a systematic approach to organizing workflows to ensure that tasks and activities go according to plan. This practice promotes a systematic order of carrying out jobs while avoiding disjointed processes. In construction management, work methodology is important because it helps to ensure that projects are completed on time and within budget. It also helps to ensure that the quality of work is maintained throughout the project. According to this, the result of the research show that although work methodology has a significant contribution to the effectiveness of the work, it is given a low score on the evaluation criteria and is not given due attention during the evaluation.

Finally, when we see that the proposals regarding the development of a better evaluation criteria were answered positively and with high scores by the respondents, the current tender evaluation manual should be improved and the tender document should be consistent and consider the scope and complexity of projects, and pay attention is given to the work methodology and key experts. Before the bidders return their bids, there should be a pre-bid discussion on the evaluation criteria of the project and the prepared tender document.

During the evaluation of the tender document, the experts assigned to the evaluation of the tender document must have considered the scope and complexity of the tender, the experts must have sufficient experience, and the evaluators must discuss the evaluation criteria before conducting the evaluation. Ensuring that coordinators provide appropriate follow-up and support during document review and prior to approval of results; Discuss the general conditions of the work and the content of the contract with the winning contractor before signing the contract.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter of the research highlights summary of findings; draws a conclusion in terms of the result and give recommendation that will help to improve project procurement management practice of AACDCWB.

5.2. Summary of the Findings

The study is carried out by setting a target to assess the construction procurement management practice on Addis Abeba City Design and Construction Works Bureau especially on tender document preparation and evaluation. To achieve the target, the researcher places a specific objective to describe the existing practice of project procurement management of AACDCWB and assess its current practice in light of the tender document preparation, procurement evaluation criteria, the point which is given to each criteria and the experience of the evaluators. Based on the Literature review, closed-end questionnaires were developed and distribute for 64 sample size employees who are currently working on engineering procurement department. From the total distributed questionnaires, 62(96.86%) respondents returned a filled questionnaire which was considered significant to draw conclusions. Each item of the respondent data was analyzed using the five-point-scale, “Likert scale”.

According to the result of the research, AACDWB does not take into account the actual construction start period when preparing the tender document, does not conduct feasibility study before preparing the tender documents, the tender documents do not take into account the scope and complexity of the project, the current construction amended directives are not considered, there is no discussion with experts on the preparation of tender document, during the preparation of the tender document, no attention is paid to working methodology, for key professionals and project completion time during tender document is preparation. From the result of the research attention is given for the necessary machinery in the evaluation criteria preparation.

The finding shows that the evaluation of the construction tender document is done according to the set evaluation criteria, the evaluation is not done by a group and the experts who are assigned for evaluation are assigned with insufficient experience in construction bidding, when they are assigned, the scope and complexity of the project is not taken into account, and not enough time is given for the evaluation of the tender; that no particular attention is paid to the work methodology; that it will be awarded directly to contractors without any technical evaluation during fixed price tender; During the evaluation, the coordinators do not perform proper monitoring and control and the work methodology submitted by the winning contractor is not discuss before signing the contract.

The findings from the result indicate that the manual prepared by the AACDCWB should be revised and when it is revised, special attention should be given to the work methodology and for key expert's criteria and points. The evaluation criteria to be prepared should take into consideration the scope and complexity of projects and should be standard. Discuss about the project with the contractors participating in the auction before they return the tender document. The evaluation of the tender document should be done as a team, and when the experts are assigned, it should be seen in terms of the scope and complexity of the project, and they should discuss on the evaluation criteria before starting the evaluation and the work methodology is also evaluated by contract management experts If the evaluation result are well reviewed by the coordinators before being approved, and finally, discussing the proposed work schedule before signing the contract with the winning contractor.

5.3. Conclusions

As the main objective of the study is to assess the practice of construction procurement management in AACDCWB, the following conclusions were drawn based on the findings and data analysis of the research.

The fact that the tender document is prepared, the scope and complexity of the project is not taken into consideration, the criteria and the point which is given to each criteria is not given to attention and the expert do not review the tender document will reduce the quality of the tender and it will affect the process of selecting the necessary contractor for the work.

The study finding showed work methodology and the actual construction start period are not taken into account when preparing and evaluation of the tender document. If this is not done, it will be difficult to start the construction on time, and it will have a significant impact on the quality, time and cost of the project. Not giving enough time to bid evaluation, not evaluating the bid as a team, and not having enough experience of the experts assigned to the evaluation and not being properly monitored by the coordinators will make the evaluation result distorted, expose to corruption and reduce the credibility of the bureau.

In conducting procurement process, there is no practice of pre-bid meetings with prospective sellers or vendors prior to submittal of bid or proposal. Such meeting is conducted to ensure all prospective sellers to have a clear and common understanding of the procurement both technical and contractual requirements. In addition, discussing the work methodology before signing the contract will help to correct gaps and improve the performance of the project.

5.4. Recommendations

First by looking at the overall construction procurement management practice result, it is recommended that the bureau shall set strict and clear tender document criteria and evaluation methodology to perform a better procurement management process. Secondly, based on the findings and conclusions on each process the following recommendations are forwarded.

5.4.1. Tender Document Preparation

- Conduct a feasibility study on the project before the bureau prepares the tender document
- When the tender document is prepared, the time when the evaluation will be completed and the construction can be started should be predicted
- When preparing a tender document, they should consider the scope and complexity of the project as well as current and updated construction laws.
- Ensuring that appropriate evaluation criteria are included in the document and that the score given for each criteria is the correct score
- Before the tender document is approved and sold to the bidders, it should be discussed by experts

5.4.2. Tender Document Evaluation

- When conducting procurement, pre meeting conference should be facilitated that give chance for prospective vendors to have common understanding of the procurement requirement and enables to clarify any questions they might raise.
- Conducting the document evaluation as a team, the assigned experts have sufficient experience and discussing the criteria together before starting the evaluation to ensure that all reviewers have the same understanding of the review criteria.
- Providing enough time for the document evaluation to be done properly and correctly and the coordinators to monitor that the evaluation process is being done according to the guideline and set criteria
- Instead of giving the work directly to the contractor during the fixed price purchase, the technical evaluation should be evaluated according to the evaluation criteria. When we give the job without evaluation, we may get in to trouble if we give the job to an incompetent contractor.
- We should always make it a practice to discuss the work methodology and other issues before signing a contract, because by correcting the gaps during the discussion, a better methodology can be prepared to ensure good performance.

5.4.3. The Formulation of Better Evaluation Criteria.

The study looks various variable that affect the construction procurement management process in AACDCWB. Based on the result obtained from the study, it indicates that the evaluation point that is currently being worked on needs to be improved and that is deserves special attention for work methodology and key professionals, believing that other researchers will improve it further in the future, by improving the current evaluation point, it has been revised as follows

5.4.3.1. Technical requirements that must be meet

Table 16. Must meet or Mandatory criteria

No.	Criteria type	Recommended point
1	Legal Qualification of the Bidder	Mandatory
2	History of Non performing Contract	Mandatory
3	Pending Litigation	Mandatory
4	Participating Micro and Small Enterprise (MSE) as a sub-contractor	Mandatory
5	Completeness of documents (Page No., Summary page, Table of content and references of documents attached)	Mandatory

Source: -The research result

5.4.3.2. Technical evaluation criteria for scoring

Proposed Work Program and Methodology

These ideas can be demonstrated in two forms:-

First; Construction Methodology, includes crew formation, site visit report and site organization, safety and environment strategies to be reliable, activates detail description, required manpower and equipment for every activates.

Secondly; work program which indicated time line to project execution, start and finish date of project, relation between each activity, project closer, items delivery time and critical activates

Both demonstrates bidder technical knowledge towards the project, assures understanding of the site and scope work.

Annual Construction Turnover

Annual construction Turnover of the company is total amount of money the company collects in the budget year without considering advance payment.

Construction Experience

The performance of an organization and its long-term effectiveness are impacted by organizational culture. Culture is a key factor in the success of organizations in many different industries, including the public sector (Cameron and Quinn, 2011). There are different ways to measure organizations long term effectiveness one and best way is general construction experience of the contractor with unit of years and type of works executed in those years and Specific construction experiences are experiences indicates contractors capability only for proposed area of work similar to work experience.

Table 17. Technical Requirements and the points assigned to the requirements

No.	Criteria type	Point given to the criteria
1	Methodology and Work Plan	**40%**
1.1	Methodology	25%
1.2	Work Plan	15%
2	Management and Technical Skills	**20%**
2.1	Management Team	8%
2.2	Technical Skills	12%
3	Past performance (General experience)	**8%**
4	Relevant Experience (Specific experience)	**15%**
5	Financial standing of the Bidder	**12%**
5.1	History of financial performance	5%
5.2	Average annual turnover	5%
5.3	Financial resources	2%
6	Organizational structure of the specific to the project	**5%**
	Total	**100%**

Source: -The research result

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Appendix

Questionnaire survey

QUESTIONNAIRE

ADDIS COLLEGE

CONSTRUCTION TECHNOLOGY & MANAGEMENT, MSc.

Dear Participants:

My name is Jelalu Kemal; I am a MA student in Construction Technology and Management**,** MSc**. at Adiss College**. As part of my MA requirement, I am studying the Procurement Management Practice in the case of Addis Ababa Design and construction works bureau and the eleventh sub-city under it. I kindly request you to participate in this research study by completing the attached questionnaire. In order to ensure that all information will remain confidential please do not include your name on the questionnaire. Also I sincerely request you to respond to the questions as honestly as possible and return the completed questionnaires. Knowing that your time is valuable please, take few minutes of your time to complete the questionnaire. Thank you very much for your time and assistance in my educational endeavors.

Questionnaire

Instruction and General Information

Instruction

Please put tick mark (√) on your choice.

Only choose one option for given question.

No need to mention your name.

Part I includes demographic information of respondents and Part II includes closed ended questions.

Part I. Demographic Information

1. Gender: Male ☐ Female ☐

2. Level of Education: Diploma ☐ Degree ☐ MSc/MA ☐ Other_____

3. Years of work experience: 0 - <2 years ☐ 2 - <4 years ☐ 4 -<6 years ☐

6 - <8 years ☐ years and above ☐

4. For how many years have you worked on construction procurement activity?

0- <2 years ☐ 2 - <4 years ☐ 4 - <6 years ☐ 6-<8 years ☐ 8 years and above ☐

5. Your Current responsibility:-

Procurement officer ☐ rocurement team leader ☐ ordinator ☐

II. Please indicate the extent to which you agree or disagree with the following statements which most accurately reflects your opinion.

Likert scale: 1 - Strongly Disagree 2 – Disagree 3 – Neutral

4 – Agree 5 – Strongly Agree

1. Regarding the preparation of the current construction tender document

No.	Indicators	1	2	3	4	5
1	A feasibility study is conducted before the tender document prepared					
2	The tender document is prepared according to the tender document preparation of PPA manual or other similar recommended practice					
3	Tenders are always issued at a favorable time for construction					
4	The tender document is prepared considering the size and complexity of the project					
5	During the preparation of the tender document, the current construction amended directives are considered					
6	A discussion will be held with various experts on the preparation of tender document					
7	It gives the necessary attention to working methodology during document preparation					
8	Due consideration is given to project completion time during document preparation					
9	Experts who are necessary for the work of the project will be included in the evaluation criteria					
10	In the evaluation criteria, the necessary machinery for the project will be included in detail					

2. Regarding the evaluation of the current construction tender document

No.	Indicators	1	2	3	4	5
1	Tender document evaluation is performed by assigned professional evaluation teams					
2	The assigned professionals who carry out the tender document evaluation have sufficient experience over the area of construction tendering					
3	The tender document evaluation will be done according to clearly stated evaluation criteria					
4	Adequate time is given for tender document evaluation process					
5	During the tender document evaluation, due attention is paid to the working methodology					
6	The technical evaluation of fixed price tender will be done according to the set criteria					
7	Appropriate monitoring will be done by coordinators during tender document review					
8	Before the contractual agreement is made, there will be a discussion with the winning contractor about the work methodology					

3. Regarding the development of better evaluation criteria

No.	Indicators	1	2	3	4	5
1	The manual prepared by the bureau should be revised regarding the evaluation criteria and the points given					
2	The point given to work methodology should be improved					
3	It is good if a uniform evaluation standard is prepared					
4	When preparing a tender document, the scope and complexity of the project should be taken into consideration					
5	For key experts involved in the work should be given the appropriate points on the evaluation criteria					
6	During the evaluation, the work methodology submitted by the bidders should be evaluated by contract management experts					
7	The evaluation of the tender document should be done by a team					
8	The experts assigned to the document review should be selected based on the scope and complexity of the project					
9	Evaluators should discuss the tender requirements before conducting document evaluation					
10	A discussion regarding the project should be held with the bidders before the bidders submit their bid document					
11	The result of the document evaluation carried out by experts must be reviewed by the coordinators before approval					
12	Prior to awarding a contract, the proposed work schedule must be discussed with the winning contractor.					