



St. Mary's University School of Graduate Studies

ASSESSMENT OF THE PRACTICES AND CHALLENGES OF DISPUTE RESOLUTION ON ROAD PROJECTS IN ETHIOPIA

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AND CHALLENGES OF DISPUTE
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ETHIOPIA**

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**A THESIS SUBMITTED TO ST. MARY'S
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SCHOOL OF GRADUATE STUDIES

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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Maru Shete Bekele (PhD and Associate Professor) all sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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LIST OF ABBREVIATIONS

ADR	Alternative Dispute Resolution
DRE	Dispute Review Expert
ERA	Ethiopian Roads Authority
FIDIC	Federation International des Ingeneurs Conseils
GCC	General Conditions of Contract
ICB	International Competitive Bidding
ICC	International Court of Arbitration of the International Chamber of commerce
MoWUD	Ministry of Works and Urban Development
MDBs	Multilateral Development Banks
NCB	National Competitive Bidding
PPA	Public Procurement and Property Administration Agency

ABSTRACT

It is said that the project will be successfully completed when it meets the time, cost, expected scope and quality objectives. The development process also faces tensions between key stakeholders in the road construction industry in order to achieve these goals. Like many projects in the construction industry, the road construction sector in Ethiopia is subjected to confusion of conflict resolution management. Disputes involving various types of mediation mechanisms will vary depending on the nature of the relationship between the parties involved. There are three major recognized Standard Terms of Contracts, MoWUD, FIDIC and ERA Norms Applicable to Ethiopian construction Projects.

The above terms and conditions include clauses for the handling of conflict settlements with the main provisions of the Engineer's Decision and subsequent other appeals. During this study, the causes of disputes between industry stakeholders are identified and the existing procedure of dispute resolution in projects undertaken by the Ethiopian Roads Authority is checked. The study covers practice and challenges of dispute resolution management on road construction projects which are located in the central part of Ethiopia. In this aspect, the study assesses the Ethiopian Roads Authority dispute resolution mechanisms by collecting data from questionnaire survey, semi structured interview and desk study since this authority have a large scale and a nationwide history in construction and administering of road projects in Ethiopia.

A descriptive research design was adopted. While the study implemented Questionnaire and interview in which used as qualitative and quantitative data collection tools. The data analysis involved in percentage and frequency analysis to indicate the level of agreement or satisfaction of each question applied to analyse to assess ERA's dispute resolution practices in road projects. The findings of the study revealed that among the dispute resolution mechanisms, almost all respondents in this study agreed that they wish to use and are applying amicable dispute resolution mechanisms like negotiation before DRE, arbitration, or litigation is applied to avoid time and involvement of third party.

This shows the preventive dispute resolution mechanism in the road construction industry has a minimum attention, the strategy to respond to problems in a timely manner, creating good communication among project teams, management and good supervision for road construction projects conflict resolution in Ethiopian roads authority is well structured and appreciated to be taken as a best practice. Therefore, to alleviate these prevailing implementation challenges the organization should adopt a standard Project Management (PM) methodology for its projects, diversify funding partners, and conduct need assessment

of beneficiaries. Change can occur to project scope, deliverables, timeframes or resource, therefore these improvements must be formally requested furthermore, it needs to adopt well-structured communication strategy and invest more on the capacity building of its staff.

Key Words: conflicts, Claims, Disputes, Road construction projects, Dispute resolution mechanisms

CHAPTER ONE

1. INTRODUCTION

The introductory part of the entire analysis is this chapter. It gives some insights into the area and conclusions where the study is conducted. It states background, statement of the problem, objectives, significance, scope, limitation, and organization of the study. It begins, thusly, with the historical backdrop of the research.

1.1 Background of the Study

Construction is the mobilization and use of resources and skilled staff, equipment and facilities to assemble materials and equipment on a specific site in accordance with drawings, specifications, and contract documents prepared to serve the purposes of a client. According to Ethiopian Roads Authority Modernization and Transformation Initiative with economic growth in Ethiopia expected to accelerate over the last two decades, the need for modernization in the road sector is enormous. By taking these needs into consideration and then managing the road network continuously at a high standard, the road sector is expected to make substantial highway investments in the coming years.

As with any other construction job, road construction contracts are subject to different forms of high risks, one of which is a conflict, which can result in failure of project progress and efficiency through time delay, cost overrun and quality. The construction industry can be a very complex, high risk and multi-party sector. Therefore, to meet the intended project goals, in addition to proper project management in all stages of project (i.e. initiation, planning, and implementation and close out of course with close monitoring and evaluation) shall be carried out. Therefore, in addition to close supervision, focus is focused on project risk management and various methods of coping with the risks of conflict shall be given the emphasis.

Claims and Conflict Resolution are discussed as the following, Federation international Des Ingenieurs – Conseils (FIDIC), (1987) discuss Claims in construction contracts are a mere request for contractual remedies mainly by the contractor. During the contract period, various forms of claims could be prepared and submitted; some may be settled amicably and others may be resisted. In addition, Construction contracts mainly involve two parties a contractor and a client with different obligations under the contract but with the same objective. However, during the performance of contract, usually differences in opinions between parties in relation to interpretation of the contracts and the governing

laws arises that may end up in dispute and may call for a mechanism to settle it. The manual also describes Dispute as a difference in opinion on the interpretation of the contract and its governing laws between the contracting parties. It arises when a claim by one party is rejected or ignored by another party and it is not accepted by the claimant. Normally, it requires two sides with conflicting opinions. These two sides are contractor and employer. The conflicting opinions between the Contractor and the Engineer could become a dispute when the Engineer is acting on behalf of the Employer.

Claim is defined as a demand or request for something, which one has a right to have. Claims in construction industry are associated with cost overrun, mismanaged jobs, legal entanglements and wrong practices on the part of various contractors. Claims are an integral part of the construction processes, and good claim administration principles are as important as good engineering, safety and business principles in PPA (2011) in section of general conditions of the contract.

PPA (2011) also describes a contract as a binding contract arrangement signed between the public authority and the contractor, consisting of the contractual documents Stated therein, including all attachments, appendices and all documents referred to in section 7. Although the road sector has made tremendous achievement in the past few decades in Ethiopia, declining in the quality and efficiency in the industry has become a big risk. The causes of dispute may vary from one project to another which might include design errors, changes, and having a multiple contracting parties, complexity and magnitude of the work, communication problem with site conditions, insufficient planning, faulty specifications and economic issues.

Successful dispute resolution is to ensure that conflicts are resolved by means of effective and efficient means to achieve the central purpose of the project for the good of the disputants and the stakeholders in general. The design of road projects makes them peculiar in that they are particular to the project and ceremonial construction. In all situations, no systematic solution can be used. This makes it impossible to foresee how a project will proceed. Therefore, during the implementation of the contract, many unforeseen circumstances and problems arise that necessitate revision of the work progress and rectification at a given cost and quality. These costs are in most cases not part of the original price and are dealt with separately hence we have the issue of claims and disputes.

Following the expulsion of the Italian occupiers, the Imperial Government of Ethiopia was persuaded that it was appropriate to create a road agency solely responsible for rehabilitating/restoring and extending the road network throughout the world. Accordingly, under decree No. 115/1951, the Imperial Highway Authority (IHA) was set up as a semi-autonomous body with unique duties to plan, design, construct and maintain highways. Responsibilities for road construction and maintenance existed under the Single Autonomous Authority (IHA) for a period of 26 years (1951-1977). ERA's supervisory body turned out to be the Ministry of Transport and Communication. The Ethiopian Roads Authority has been re-established under proclamation 133/1978 incorporating, among others, the Rural Roads Department in addition to the Highway Department according to Ethiopian Roads Authority Modernization and Transformation Initiative (1980), the Military Government that took power in 1974 reformed the agency into the Ethiopian Transport Construction Authority (ETCA) by proclamation No. 189/1980 and became answerable to the newly formed Ministry of Construction. The proclamation enlarged responsibility of the Authority by expanding its task to incorporate the construction of Airports, Seaports, Railways, and Municipal Roads.

Following the transition from a command-based economy to a market-oriented one in 1991, with a view to having a strong administration under the leadership of a Board, ERA was restored by proclamation No.63/1993. As part of its restructuring, as part of the Federal Government's obligation, the government delegated provincial self-government administration of rural roads and main roads to Age. The role of ERA in rural roads was then limited to providing, as required by regional governments, support such as overall network planning, training and technical assistance. ERA was re-established by Decree No. 80/1997 with the aim of establishing and administering highways and ensuring the quality of road development in order to cope with current circumstances. In October 2001, with the formation of a new cabinet of ministers, the Ministry of Infrastructure and, later, the Ministry of Works and Urban Development were established with the responsibility of improving the nation's infrastructure. The Jurisdiction of the One of the organizations under the MoWUD and accountable to the Board of Directors, Ethiopian Highways is responsible for preparing and formulating long-term and short-term plans and programs for road construction, planning, maintenance of trunk and main connecting roads, as well as contract management.

The Ethiopian Roads Authority (ERA) have an overall share in the road construction industry in Ethiopia. There are a range of local and foreign contractors and consultants involved in road project

design, development and maintenance. The Ethiopian Roads Authority currently administers hundred ninety-five ongoing construction and design projects by splitting them into regions. In almost every project, the Ethiopian Roads Authority has used direct means of administering contracts to oversee and manage projects by on-site supervisory consultants. A strong signal exists that two essential components of construction supervision facilities are management and operating systems. Given the scope and complexity of projects, nowadays the concept of managing system and operating system have become core elements to meet client's objectives with regard to time, cost and quality. Ethiopian Roads Authority is currently administering one hundred ninety-five ongoing road construction and design projects by national and international contracts in nationwide with different involvement level of stake holders from these projects eleven projects are terminated because of disputes and allegations raised between the three main parties of the project.

1.2 Statement of the Problem

A construction project is generally recognized as effective when the project's purpose is accomplished in terms of predetermined targets, which are mostly fulfilled on time, within the budget and the project's specified standard. In these road construction projects, studies related to contract management practices, causes of delay and cost control over run and time overlap in road projects and causes of conflict researchers were conducted. According to Assegid Getahun, Yolente C. Macarubbo, Alemu Moissa (2016). Assessment of Construction Dispute Resolution in Ethiopian Somali Regional State Road Projects: A Case Study on Road Projects in the Region is take one example area in Ethiopia which is in Somali region disputes have been posed due to design-related problems, inaccessibility of remote areas, either professionalism or haves been identified from the most frequent causes of disputes in Somali region.

In addition to this, Abebe Dinku & Girmay Kahsay (2003) states that a study carried out on thirteen projects carried out from 1985 to 1995 showed a delay of up to 460 percent in foreign construction projects in Ethiopia and case studies on selected sites. In line with these financial claims, 200 percent-300 percent of total road construction projects are raging in Ethiopia's foreign projects. As a result, there has been a great desire to mitigate or prevent the resolution of Delay Claim disputes and this has created considerable research interest among Ethiopian researchers and practitioners, as shown in the table below.

Table 1-1 Research Interest among Ethiopian Researchers and Practitioners

Aim of Study/ Problem Addressed	Literature
<p>Claims in international Projects in Ethiopia</p> <ul style="list-style-type: none"> • Investigate causes of claims & propose remedies • Industry lacks qualified engineering professionals with construction Management technique, international contract administration, and claim Handling • Initiate international contract procedure, develop regulated pre-tender document preparation & evaluation measures • Claims related to late handing over of site, RoW problems, design errors, late Submission of drawings, claims related to weather conditions • Industry need to focus on development of adequate project management Skills, establishment of think tank of experts with appropriate negation skills 	<p>Abebe Dinku & Girmay Kahsay. (2003). Claims in international Construction projects in Ethiopia and case study on selected sites, journal of EEA, Vol 20, Addis Ababa.</p>
<p>Alternative Dispute Resolution Methods</p> <ul style="list-style-type: none"> • Non litigation alternatives • Three known standards conditions of contract (MOWUD, FIDIC, ERA's) • Dispute/conflict resolution mechanisms preventive, amicable, and judgmental resolution systems Consultants do not complete the services in the scope, inadequate quality of design, drawings, specifications, not approve payment on time, and late decision on variations • Contractors delay on progress & completion of works, do not follow their plans & occurrence of LDs. 	<p>Aberra Bekele (2005). Alternative Dispute Resolution Methods in Construction Industry an Assessment of Ethiopian Situation.</p>
<p>Claims in in International Construction Contract</p> <ul style="list-style-type: none"> • Three standard conditions FIDIC, MOWUD and PPA • Failure in contract claim management • Unforeseen circumstances such as variations, adverse climate, and ROW Problem 	<p>LIU YI (2009). Thesis on Claims in International Construction Contract: A Case Study of Ethiopia; MSc. Thesis, Addis Ababa University, School of Civil and Environmental Engineering, Ethiopia.</p>

Aim of Study/ Problem Addressed	Literature
Claims in Ethiopian Construction Industry <ul style="list-style-type: none"> • Standard conditions of contract FIDIC, BaTCoDA and ICE • Claims inevitable due to traditional procurement system • Construction professionals without proper training on construction management • Main causes improper project management & claim administration • Claims based on contractual provisions are emphasized 	Abdissa D. (2003) Thesis on Claims in Ethiopian Construction industry.

Different efforts have been made by the Ethiopian Roads Authority to tackle the inefficiencies and inefficiencies of road construction by various procurement processes such as design-build, design-bid-build, but the number of claims and purpose to claims are still higher. That being said, the Ethiopian Roads Authority is urged to restructure its dispute resolution practice and the manner in which both stakeholders in the construction sector consider the substantiation and purpose of allegations.

However, from the total projects handled by the Ethiopian Roads Authority under the Central Region Contract Project Management Directorate ten projects have different types of claim issues and two projects assert a third party intervention to the dispute occurred. The main reason to conduct this study is taken from this initiative that even though a considerable resource in terms of finances, personnel and time are invested on road projects in Ethiopia the clear understanding to the causes of disputes as a risk and minimizing the occurrence of disputes in projects at the project life cycle is not enough and have a lot to be done on claims and disputes starting from the stage of procurement.

Accordingly, from the above initiative the researcher asked the following questions while conducting this thesis. When any disagreement occurs between the stakeholders while executing the project, is there an appropriate legal institute to treat their conflicts? When claims are developed to disputes in Ethiopian construction projects how do parties resolve their disputes? And what are the main challenges in resolving disputes through assessing the practice of Ethiopian Roads Authority.

1.3 Research Objective

1.3.1 General Objective

This study will assess the practices and challenges of dispute resolution practice in Ethiopia.

1.3.2 Specific Objectives

This study has main three primary objectives, through a case study

- To assess the current practice of dispute resolution mechanism in Ethiopian Roads Authority
- To assess the current challenges of dispute resolution mechanism in Ethiopian Roads Authority
- To assess the awareness level about dispute resolution of the employer, consultants and contractors who are participating in road construction projects.

1.4 Scope and Limitation of the Study

At the inception of this study, discussion was made with professionals and public work clients on issues related to research standards for causes and conflict settlement processes, claims and dispute management on a framework basis for all road projects. It became evident during the discussion that the number of interviewees in this study could be increased and that further studies could include Ethiopian experts in the various road construction projects operated by regional states.

The study selects the Ethiopian Roads Authority as it administers and administers international and national competitive bidding projects by representing the government of Ethiopia in order to determine the practice of conflict resolution. From one hundred ninety five ongoing projects divided in 7 administering categories the study focuses on projects which are currently administered by Ethiopian Roads Authority under Central Region Construction Projects Management Directorate which are thirty ongoing projects. As practiced by the thirty current road construction projects under the Central Management Directorate, the activity studied and criticized is restricted to the practice of conflict resolution. The study can, therefore, only be applied reliably to dispute resolution activities in the road sector.

1.5 Significance of the Study

Engaging in research can be exciting and rewarding endeavour Marczyk et al., (2005).The main purpose of this study as a researcher is to examine the practice of conflict resolution processes in Ethiopia in the sense of a public body. This study will examine the practice of conflict settlement in Ethiopia through the Ethiopian Roads Authority on road projects. Despite their similar nature, these projects are distinguished by unique characteristics, such as specific goals, time limits, funds, complexity, working climate, contractors and consultants, which can render conflicts unavoidable for

each person. As a public agency, the Ethiopian Roads Authority is increasingly involved in the outstanding quality of projects with an allocated budget and a defined project length.

However, in addition to researchers who would like to perform a further analysis on this matter, this study is relevant to the above-mentioned authority by providing a clear reference to the situation about the current practice of conflict resolution mechanisms and showing challenges by giving heads up to of the situation to General Director and Deputy Director Generals, Project Team Leaders, Counterpart Engineers, Resident Engineers, Project managers and operational coordinators who are interested with construction programs. The outcomes of this study will also encourage pressure groups that advocate dispute resolution and successful completion of projects by helping decision-making activities, project management skills and claims management skills during the project life cycle by analysing the previous experiences. Through assessing the practice of Ethiopian Roads Authority the study will give a heads up on the questions that left unanswered with other researches.

1.6 Organization of the Thesis

This study comprises of five chapters each of which comprise of different subtitles as outlined; the first chapter is an introduction which presents the background of the study as well as the organizations background, definition of terms, statement of the problem, research question and objective of the study, the significance of the study, scope and limitation of the study. The second chapter deals with the view of related literatures. The research design, research population, sampling and sampling procedures, data gathering instruments and data analysis is compiled under the methodology section and presented in chapter three. The fourth chapter discusses the results of the analysis and interpretation of the results. At the end of the paper the incorporated summary of the major findings, conclusions drawn and the way forward as a recommendation to the problem mentioned in the study are presented.

CHAPTER TWO

2. LITERATURE REVIEW

This section includes the analysis of the related materials relating to the specified research objectives. It discusses problems related to the settlement of conflicts over road projects. In addition, a final section offers a conceptual structure work of the key frameworks of the examined literatures for conflict resolution.

2.1 Definition of Terms and Concepts

Conflicts can be defined as a conflict within the organization between two or more members of organizations or groups that occur because they have to jointly use limited resources or carry out activities together, or because the status, priorities, beliefs, and perceptions are different according to Leung et al. (2002, 2005) The positive impacts of conflict on construction projects were partly checked by using case study and questionnaire survey to testify to the relationship between distinctive styles of conflict and the satisfaction of participants.

A conflict is much easier to stop than having to settle it. By previous action, certain conflicts cannot be avoided, but many can. Ensuring the implementation of a written contract arrangement between the parties to a contract is a first step in preventing conflicts. Contractual safeguards that include some protection against disputes include: Ensuring that the parties enter into a finalized contract before the start of the work; Ensuring that the scope of the work is clearly specified prior to the tender; Ensuring that the quality constraints are completely defined prior to the tender; Ensuring that the terms of the contract are fair and transparent, unless non-standard conditions are required, using standard forms; Ensuring that the contract allows for early notice of future disputes and that the protocols for dispute settlement are stipulated and not limited to negotiation or litigation; and Ensuring successful administration of the contract.

2.1.1 Contracts in General

Starting with the creation of a contract, it formally forms a binding power on the parties as if they were law, which means that when the parties enter into a contract agreement, legal binding force is formed between them. A contract is an arrangement in which two or more parties establish, vary or extinguish obligations of a proprietary nature between themselves in accordance with Article 1677 Civil Code Procedure of the Empire of Ethiopia, (1965). By specifying the definition of the main terms and

agreeing to be bound by Article 1666 of the Civil Code, the contract relies on the agreement of the contracting parties Civil Code Procedure of the Empire of Ethiopia, (1965).

Construction Contract

A contractual agreement which has legal implications should be legally recognized by a contract. Article 1678 Procedure of the Civil Code of the Empire of Ethiopia, (1965) refers to the aspect of the contract emphasizing

“No valid Contract shall exist unless

- a) The parties are free to contract and give their consent to the rule sustainably.*
- b) The object of the contract is sufficiently defined and is possible and lawful*
- c) The contract is made in the form prescribed by law”*

In order to form a contract and to make the contract a legally binding document, these elements of the contract must be fulfilled. In terms of legal aspects, each factor discusses the following issues:

- Capacity is a relationship which legally refers to the party's presence and the ability to sign a contract. According to Article 198 Empire of Ethiopia Procedure of the Civil Code, (1965), ability describes a natural person over 18 years of age and in good health and a legal person who, by statute, serves the institution or government.
- Consent is a partnership that applies to the offer and both parties agree that acceptance is mutually accepted.
- The object relates to the Contractor's promise and the Employer's consideration, which is a duty that needs to be sufficiently specified by the contract and can be fulfilled lawfully.
- Type is also a relationship relating to the written form of the contract, as the construction contract must pay tax in writing for the interest or obligation of the third party, etc.

The primary arrangement between the employer/customer and the contractor would be made in the construction contract. According to Article 2610 Civil Code Procedure of the Empire of Ethiopia, (1965), "A work and labor contract is a contract under which one of the parties, the contractor, undertakes, under his own responsibility, to produce the result in question, taking into account the remuneration which the other party, the client, undertakes to pay him."

There are many kinds of arrangements for owners. They are calculated by the method of delivery of the project, the number of contracts and the basis of payment. According to Article 1681 Civil Code Procedure of the Empire of Ethiopia, (1965), a complete list of all written and graphical documents should be included in the contract as follows;

- 1) Offer and acceptance can, under the circumstances of the case, be rendered orally or in writing, or by signs usually in use, or by behavior such as that.
- 2) A special form of approval may be stipulated by the party making the bid.

In specifying the rights, obligations, and accountability of the various parties to a construction contract, the construction contract management and project management procedures laid down in documents issued by the regulatory bodies of the construction industry have become industry norms. While other records are used by certain private companies and federal entities, the information focuses on similar information.

2.1.2 Construction Conditions of Contracts

The key part of the contract text, which is used as a section governing contractual provisions, is the construction conditions of the contract. The new Ethiopian Roads Authority has adapted the general terms and conditions of the FIDIC book contract for civil engineering projects Ethiopian Roads Authority, Claims and Disputes Management Manual, (2019). For national and foreign contracts on Ethiopian road projects, the FIDIC condition of the contract has been adapted. Parties in Construction Industry and Construction Contract

2.1.3 Parties in Construction Industry and Construction Contract

2.1.4 Parties in Construction Industry

The construction industry is the most significant facilitator of countries' socio-economic and political growth. It provides the basis on which infrastructure and facilities for other sectors are developed and constructed. An initiator and owner, called the Employer/Client, are required for such infrastructure. The Employer/Client is also responsible for the project execution as well as the award and administration of contracts under the project. The Employer is described in different literature as the designated word for the party to which the Contractor is accountable. The employer is often sometimes referred to as the "project owner" and the "project contractor" of the contractor. A government/public agency, private corporation or private owner may be the employer. Therefore, by using the force

account, the employer can outsource the project to an external contractor or carry out the project. In addition, in order to obtain experience in technological design and management, he can also hire an engineer. Such jobs, in order to make it less risky, should be based on a binding contract. The terms Employer, Engineer and Contractor are described as follows from different sources;

Employer is a significant party in the construction project that is involved from start to finish and event to maintenance of post occupancy. The Employer is the most relevant party to the Contract because it provides the Engineer and the Contractor with work in his project and his money PPA (2011).

The contractor is an organization or individual that contracts for the construction of constructions, roads or others with another organization or individual (owner) PPA (2011).

Engineer is a technical person who is delegated by the Contractor to translate the Employer's project requirement into a particular design and possibly the supervision PPA (2011) Contractor is also define in Federation International Des Ingenieurs-Conseils, FIDIC (1987), Terms of Contract for Civil Engineering Construction Works, fourth edition, (1987), as a Contractor is a natural or legal individual under contract with a Public Body to supply works.

According to Federation International Des Ingenieurs-Conseils FIDIC, (1987) **Engineer** means a person designated or appointed as such by the Public Body under the Special Conditions of Contract and informed in writing to the Contractor to serve as the representative of the Public Body in order to supervise and inspect the works and to evaluate and review the materials used and the standard of the workmanship, including any approved representative of that person. Employer means the person in the Contract Data designated as Employer and the legal heirs in the person's title according to Federation International Des Ingenieurs-Conseils FIDIC, (1987), Engineer means a person designated as an engineer by the Employer for the purposes of the Contract, named in the Contract Data, or a person appointed from time to time by the Employer and notified to the Contractor.

2.2 Theoretical Literature

2.2.1 Conflicts and Disputes

Conflicts and conflicts are not a related notion; conflict is the mechanism by which discontent, disagreement and unmet aspirations are conveyed. On the contrary, the conflict is related to numerous justifiable questions. A conflict, as described in the introduction section above, is a disagreement

between the Department and the contractor on a contract issue. Claims will be referred to the client until conflicts and disputes are presented. Claims are a right to income, property or remedy asserted. With regard to the construction industry, claims are primarily made by contractors or other stakeholders for the extension of time, delay in payment for the tasks performed, problems related to design and issues related to the right of way Vincent.P- Smith and D, (1989). There are several bases on which a low claim may be made and if these claims are not settled under contractual conditions, they can lead to conflicts. The following circumstances are described in construction projects as the warning signs of the existence of claims in road construction projects Levin. P (1998), whereby the occurrence of the same would result in contract imbalances.

- Work out of sequence.
- Stop, disrupt, or interrupt work; wholly or partially; directly or indirectly.
- Equipment is delivered late, in bad repair, or not sufficient for the intended use by the user.
- In either case, accelerate efficiency to reclaim schedule, add men or materials, or work overtime or additional changes.
- Differing site condition
- Differences in contract interpretation
- Defective specifications
- Delay from the owner's act or failure act.
- Unwarranted work rejection.
- For breach of contract

Abebe Dinku & Girmay Kahsay (2003) and LIU YII (2009) inferred the above list of comprehensive causes of claims on sample projects that the key ones may be variations due to right of way, changes in design, modifications and lack of adequate data in addition to the ambiguities in the contract agreement, poor contact, employer loss, altered circumstances and unexpected or uncertain status during the execution of the project.

2.2.2 Possible Reasons for Disputes

According to Assegid Getahun, Yolente C. Macarubbo, Alemu Mosisa (2016) study on one example area in Ethiopia which is in Somali region disputes has been raised under design related problems due

to inaccessibility of remote areas, either professionalism or have been identified from the most frequent causes of disputes in Somali region. In addition to this, Abebe Dinku & Girmay Kahsay, (2003) study which was conducted on 13 projects executed from 1985 to 1995 indicated a delay up to 460 percent. In line with this financial claims in international projects in Ethiopia is in range of 200percent -300 percent of the total road construction projects. However, as the popular case the dispute resolution mechanism practiced mostly in the region is litigation. Assegid Getahun, Yolente C. Macarubbo, Alemu Mosisa (2016) list the following as factors contribute to construction claims.

2.2.3 Types of Conflict/Disputes in Projects

Sagar Soni, Mukesh Pandey, Sohith Agrawal (2017) surveys show different types of sources of conflicts and dispute. These are as follows:

Owner Related

Sagar Soni, Mukesh Pandey, Sohith Agrawal (2017) admits that difficulty of construction projects is a reality, so it is very difficult to avoid even minor mistakes that lead to owner arguments that result in disputes as many researchers conclude that the key triggers are delay of payment.

Contractor Related

One of the considerations that play an enormous role in the success or miscarriage of any construction project is the contractor. In construction projects where the managerial and management behavior is strong, there is a small risk of controversy and confrontation.

Consultant Related

Sagar Soni, Mukesh Pandey, Sohith Agrawal (2017) accepts that most consultant-related disputes are due to drawing and planning, design modifications and corrections, inadequate / unfinished requirements, resulting in a delay on the whole project that leads to disagreements and disputes.

Third Party & Human Behavior Related

This entails two large controllable and uncontrollable variables. Controllable factors are those that can be managed in any possible manner, including human-related factors such as lack of team spirit of players, lack of effective communication, whereas the third party outrage, act of God, etc. are uncontrollable. Conflicts and controversies over it are also therefore possible.

Design & Contract Related

Using vague words in the contract text, the use of double meaning terms in these contracts could result in contract-related conflicts, (Sagar Soni, Mukesh Pandey, Sohith Agrawal 2017). The lack of available knowledge includes a design-related aspect that often contributes to disagreements in the continuing development process.

Mechanisms to manage disputes

Assegid Getahun, Yolente C. Macarubbo, Alemu Mosisa (2016) observed that the construction industry has succeeded in creating and implementing several unique methods of resolving the possible risks of conflicts in order to create a conflict management process, as for many years the construction industry has been a pioneer in both dispute incidents and settlement mechanisms. Many of these principles and processes have been successfully implemented in other fields, including alliances, realistic risk allocation, litigation review committees, and stepped-up talks. However, we focus largely on statutory conditions, federal legislation, court rulings, minimal prior expertise, or simple reactionary intuition to support the application of these protocols and not on measured cost savings. In the background of our region, Ethiopia, it is a fact that conflict in the construction industry is inevitable. These conflicts may be between the customer and the contractor, the main contractor and the sub-contractor in cases of overpayment, contract efficiency, job delay and interruption, adjustments in plan, price inflation, work quality, etc.

2.2.4 Tools and Techniques Applicable to Resolve Disputes

In general, in Ethiopian construction projects, there are three main mostly used standard conditions of contracts, these are MoWUD, FIDIC and ERA's standards. These mentioned conditions have clauses for treatment of settlements of disputes with initial provisions of Engineer's decision, and successive appeals. These are list of techniques applicable to resolve disputes in road projects.

- 1) ***Preventive:*** - resolution system by use of partnering, Dispute potential index, dispute resolution advisors, facilitators.

To prevent construction disputes, there are a host factors to be considered which includes a well-planned, designed studied project in addition to clear and accurate complete contract document with a balanced term of allocation and distribution of risks and rights, identification of dispute prone and among the contacting parties in the contract document (FIDIC 1999).

- 2) ***Amicable:*** - dispute resolution system through negotiation, mediation conciliation and mini-trial.

Negotiation: - Allan H. Goodman (2005) describes the most indirect mode of dispute settlement as arbitration, but it is not assured that it can lead to resolution. The parties to the deal and their appointed negotiators are the only actors in the negotiating process. A negotiator's aim is to settle the conflict in the best possible manner for both sides to reach a settlement of the dispute, based on the needs of the parties.

Mediation: - also referred to in his research mediation, Allan H. Goodman (2005) mediation is often referred to as "assisted negotiation." In this process, the parties appoint an impartial agent to support them in seeking a conflict resolution, a mediator that is not in the interest of either side. The mediator is a facilitator who helps the parties to address the positives and limitations of their situation and aids them in framing and transmitting solutions. In a successful resolution, the parties will reach consensus on their dispute with the support of the mediator.

Judgmental: - Form of settlement of disputes through the Case Adjudication, Arbitration and Lawsuit Board. The very characteristic of the judgmental form of dispute resolution is that a third party, such as the court clerk, the arbitrator or the adjudicator, settles the case before it is settled for the parties.

Adjudication Federation International Des Ingenieurs-Conseils (FIDIC) (1999) claimed that adjudication can be defined as a mechanism by which a neutral & unbiased party assigned is responsible for taking the initiative to decide the facts & law relating to a conflict and to reach a decision within a short period of time. Adjudication can be a permanent adjudication or ad hoc adjudication; the permanent one is usually established after the arbitration and continues in effect and the participants are remunerated for the length of the contract. Only after the conflict has emerged is an ad hoc one created and its life comes to an end after offering its determination, advice or opinion.

Arbitration This, in contrast to litigation and consultation, is contractual. The parties nominate an independent representative, the arbitrator, who, according to Allan H. Goodman, holds a hearing as a private judge and issues a verdict, known as a "award," that binds the parties (2005). An arbitral submission is a contract in which the parties to the dispute entrust their remedy to a third party, the arbitrator, who undertakes to resolve the dispute in compliance with the rules of Article 3325 of the Civil Code of Procedure of the Empire of Ethiopia (1965). Institutional arbitration and ad hoc arbitration are the most well-known forms of arbitration.

An administered form of arbitration is formal arbitration. The mechanism of arbitration is backed by a given institution's management support. Which has its own Arbitration & Institution Rules. There is no administrative body behind the arbitration mechanism for the ad hoc form of arbitration. The arbitrators and the parties were left with both the handling of the litigation and financial problems.

Litigation takes place with authority over the prosecution in the court of law. Here, the courts take a part in settling conflicts. The courts shall follow the standard practice laid down in the Code of Civil Procedure, which shall extend to all forms of cases brought before them by the Code of Civil Procedure of the Empire of Ethiopia (1965).

2.2.5 Dispute Resolution System in Construction Projects in Ethiopia

Gaitskell, R. (2006) in his study agrees most if not all commercial contracts, including construction contracts, contain provision for the resolution through arbitration of disputes which may arise between the parties during the course of the transaction.

However, according to Federation international Des Ingenieurs – Conseils (FIDIC) (1987) no express definition of ‘dispute’ appears to be conditions of contract also in Road construction projects can involve varied backgrounds, cultures and attitudes, resulting in a lack of meaningful interaction with members of the project team agrees with this and dispute is said to come into being when the contractor did not accept the engineer’s rejection of his claim or its claim substantiations.

That being said, in Ethiopian construction industry contracts the major contract conditions used in dispute resolution are the following:

- The 1987 Standard of condition of contract of Construction and Transport Construction Design Authority (BaTCoDA), which is reprinted in 1994 by ministry of Urban Works and Developments and now it is called MoWUD condition of contract
- The 2003 Ethiopian Road Authority standard specification which is mainly for road projects (ERA’s standard specification)
- FIDIC Condition of contract for Civil Engineering Construction
- The 2005 Public Procurement Agency conditions of contract (2005 PPA conditions of contract)
- The 2011 Public Procurement Agency conditions of contracts (2011 PPA conditions of contract)

2.2.6 Dispute Resolution System in Current Road Construction Projects in Ethiopian Roads Authority

Present Conflict Resolution Processes in the Ethiopian Somali Regional State Road Construction Industry One of the priorities of every construction industry is to prevent accusations or conflicts. But because construction is a dynamic project (different stakeholders), confrontation is possible. The Ethiopian Roads Authority is therefore replacing clause 67 for the preventive form ADR, including the Conflict Analysis Specialist (DRE). In business contracts and, more so, in construction contracts, it is very popular to settle disputes outside the traditional legal system.

The unique skills and technicalities involved in the sector and the need for time to carry out such contracts also include the development of alternate mechanisms of conflict settlement and arbitration to settle such disputes. Although public works, mostly funded largely by state coffers and known as administrative contracts, are road construction contracts entered into between the ERA and international or local companies, conflicts resulting from those contracts may be subjected to arbitration and other amicable conflict settlement procedures. Results from the answers of the respondents from the questionnaire indicate that Consultation was the most widely used dispute resolution mechanism; although Arbitration placed first from the case studies review.

While the Ethiopian Roads Authority equally administers highway construction contracts, the Ethiopian Roads Authority encourages a cooperative approach compliant with legal norms for contracting relationships; the performance of contractors' claims demands continues. As Ethiopian Roads Authority, Claims and Disputes Management Manual, (2019). The Ethiopian roads authority dispute resolution procedure passes through six main steps namely identification, notification & Substantiation, Assessment & Entitlement, Dispute resolution, Arbitration dispute resolution, and litigation dispute resolution stage by having a definite response time. Mechanisms for alternate conflict settlement that aim to save time and resources for the parties in dispute and preserve the relationship between the parties have not been completely established, developed and used. While alternate real time conflict settlement structures have been developed by ERA pursuing the globe as an alternative to mitigate lawsuits through the ERA Manual 2002 NCT contract status, Section 12. After the commencement of the Engineer, as a client representative he shall provide responses and/ or instructions in order to mitigate the likely occurrences and/or effects of the identified potential claim.

The popular system is that most disputes are resolved by negotiation between the concerning parties without the involvement of outside party. The consulting engineer resolves most disputes that might arise during the progress of the work on site. Some cases, however, may require the constitution of dispute review expert or board and/or an independent adjudicator to seek effective solutions. But after exhausting all dispute resolution mechanisms, it may be unavoidable to take the matter to arbitration, often for final and binding solution. Among the many dispute resolution mechanisms this is the most serious and adversarial method, resulted from inability of involved parties to negotiate. According Ethiopian Roads Authority, Claims and Disputes Management Manual, (2019) it was determined that if the parties' ad use negotiation/ADR as the resolution method, projects should not have been terminated, suspended nor delayed.

Lack of ability of the parties to negotiate will result to adversarial resolution mechanism. The majority of construction participants has a moderate knowledge of ADR methods and experiences the methods as not being flexible and somewhat too complex. Through data analysis, it was generated that waste of time and hostility is a cost to be sacrificed for resolution of unnecessary and time wasting litigation as the consequence of unresolved dispute. For the question "Which type of dispute resolution mechanism fits for the road construction industry", almost all respondents reported that they wish to use ADR, like negotiation before arbitration (litigation) to avoid time and the involvement of third parties.

Ethiopian Roads Authority, Claims and Disputes Management Manual, (2019) If a dispute of any kind whatsoever arises between the employer and the contractor in connection with, or arising out of, the contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after the first instance, the subject-matter of the dispute shall be referred in writing to the engineer, repudiation or other termination of the contract, including any dispute as to any view, instruction, decision, certificate or value of the engineer, the subject-matter of the dispute, with a copy to the other party. Such reference shall state that it is made pursuant to Clause 67. No later than the eighty-fourth day after the day on which he received such reference the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to Clause 67. However, most disputes are elevated from claims which are not suitably asserted therefore in this study the researcher from Ethiopian Roads Authority, Claims and Disputes Management Manual, (2019) grasp the ERA's claim procedure and then practice of dispute resolution

and every projects which are administered by Ethiopian Roads Authority passes through the following Claim and Dispute Management processes;

1. Potential Claim Identification Stage
2. Claim Notification and Substantiation Stage
3. Claim Assessment Stage
4. DRE Dispute Resolution Stage
5. Arbitration Dispute Resolution Stage
 - a. Arbitral Tribunal Formulation
 - b. Arbitration Proceedings
 - c. Arbitration Award
 - d. Engineer's Involvement and Follow up
6. Litigation Dispute Resolution Stage
 - a. Court Proceedings
 - b. Court Award
 - c. Engineer's Involvement and Follow Up

From the ongoing projects the following practice is presented as a review to show the dispute resolution practice of Ethiopian Roads Authority. Ethiopian Roads Authority contracts include provisions which, whilst not discouraging the parties from reaching agreement as the works proceed and Dispute Adjudication Board (individuals) at the early Stage of the preferable project, taking account of its size, duration and fields of expertise which will be involved will appoint a one-person or board dispute Adjudication by the employer suggestion or by comparing acceptable persons for dispute adjudication board through curriculum vitae tendering according to Ethiopian Roads Authority, Claims and Disputes Management Manual,2019.

In all projects ERA have mentioned about claims, disputes and arbitration settlement provisions in condition of the contracts by sub- clauses. ERA amicable settlement provisions are intended to encourage the parties to settle a disputes amicably; like by direct negotiation, mediation or conciliation. If parties don't settle the disputes amicably there is a contract provision ERA will consider arbitration international arbitration like ICC for international contracts and Chamber of

Commerce for national contracts as a dispute resolution method, since this resolution mechanism has practical advantages over litigation and may be more mutually acceptable to the parties. ERA mostly refers to FIDIC conditions of contract for design –build and turnkey which stipulates conditions of contract that any dispute between the parties is referred to the Engineer in writing and a copy sent to the other party. The Engineer then has 84 days in which to make a decision and communicate it to the parties. The Contractor is required to continue with the works until the Engineer makes known his decision. Both the Employer and Contractor are then obliged to give effect to the Engineer’s decision until it is revised in an amicable settlement or arbitral award. If the Engineer does not advise his decision within 84 days or if either party disagree with his decision, then either the Contractor or the Employer has 70 days to advise the other of the intention to seek arbitration with a copy to the Engineer. The general conditions of the contract also require the parties to attempt amicable settlement once notice of arbitration has been given.

According to the Aberra Bekele, (2005) ERA has sections in successive steps in resolving disputes, beginning with the Engineer, who will respond within 120 days, his recommendation shall be final and binding. Alternative Dispute Resolution Approaches in Construction Industry and Ethiopian Situation Assessment addressed it. If, within the specified duration of 120 days, the Engineer fails to make a recommendation or if either party is dissatisfied with his recommendation, either party may refer the dispute to the General Manager of Highways in current practice an appointed dispute resolution expert within 150 days of the original request from the Engineer. The General Manager of Highways (DRE) shall, within 30 days, decide on the matter and shall provide each party with a copy of its decision. The decision of the General Manager Highways (DRE) shall be final and conclusive and binding on both parties unless within 30 days of receipt of such decision the Contractor presents notice to the General Manager Highways (DRE) of his intention to submit the dispute to arbitration. Unless the parties agree otherwise, arbitration can commence 56 days after notice has been given, whether or not an attempt at amicable settlement has been made. The Engineer’s decision becomes binding if neither the Employer nor the Contractor indicates his intention to seek arbitration within 70 days of the decision.

2.2.7 Challenges of Dispute Resolution

Because of its size, its shape, size, geographical location, individuality, and the personnel involved in the project, each project is distinctive. Thus, potentially risky project execution and a lack of appropriate approach to addressing these risks have resulted in a lot of unnecessary results, according

to PMI (2013). The main duties in project management are to fulfill both project targets and goals while mitigating project limitations at the same time (Lewis 2006). Lewis (2006) illustrated, in detail, the distance, time, expense and efficiency of the project's main constraints.

The role of senior management in shaping project organizing is critical. In the project, the execution of project management practices is focused on the existing corporate culture that specifically impacts the project organization. Project managers, claim professionals, resident engineers and counterpart engineers, must reflect on crucial areas of challenge in applying areas of expertise. Senior leadership status, feasibility of PMO, considerations of human resource management, planning of PM, insufficient execution of PM requirements, and triple constraints are some of the major concerns that can emerge when adopting best practices. From all of the literature mentioned above on dispute resolution management, problems considered to be the primary factors of successful project progress are outlined. Low systemic and human capacity for preventive dispute settlement, insufficient contract terms, public jurisdiction and inappropriate attention to claims are the most well-known issues of conflict resolution management in Ethiopia. Subsequent sub- chapters address the challenges in depth.

2.2.8 In Adequate Attention for Claims

The discipline of project management relies a great deal on forecasting of project and operational planning (Verzuh. 2008). So, what happens when items deviate as planned or expected from the original schedule? The sustainability of the initiative and that of the company may be severely threatened by this. Success in construction projects largely depends on how well disputes are managed by project management. Usually, it is beneficial to allow contractors to make allegations at the early stage of the project at the early stages of the project and to prevent conflicts as the contractor submits his purpose to easily assert and claim substantiation and offers sufficient consideration.

2.2.9 Challenges with Adequate Professionals

The largest problem in project management practice in the 21st century is the human capital demand for project management (Mir & Pinnington, 2014). It is the human capital that organize and conduct the project, and it is important to ensure that project teams are professional enough to handle the project adequately and meet the needs of stakeholders. With different expertise, each project has different requirements for human capital. It is impossible to have the right staff on the job most of the time and this scheduling question will also have some consequences for project performance and conflict resolution management practice (Thomas & Mullaly, 2007; Verzuh, 2008). Professionals relevant to

lawsuits and litigation Promoting resolution is a contentious issue and is subject to subjective expectations that identifying the areas where disagreement is likely to occur and carefully planning to resolve them will minimize the possibility of conflict and thereby improve the probability for all interested parties of a successful project.

2.2.10 Inadequate Contract Terms and Conditions

The civil code provide provision for conflict resolution tends to be resolved where conflicts occur between parties (Civil Code chapter 4) (Civil Code chapter 4). Dispute settlement appears to be settled in the Ethiopian road construction industry by defining the method(s) of resolution to be used under the terms of the contract, this 'pre-ordaining' method can by mistake lead to a confusion of methods that are possible and possibly preferred and may not explicitly recognize the existence of the dispute in various projects, and can, in effect, restrict the parties in the light of potential methods of resolution. This is a typical specification downside since simple solutions can appear easy and very enticing. There are many reasons not to cut corners and the hard way is to be taught by most mediators. It should be emphasized to the parties that sufficient dialogue will expose unforeseen problems and establish unexpected alternatives.

2.3 Empirical Literature Review

American Institute of Architects (AIA) review widely-used standard contract forms and provides an understanding of how dispute resolution is frequently addressed in construction contracts. These standard forms were developed through the combined efforts of a number of individuals and professional associations 'the most recent version of the standard forms added a mediation requirement prior to binding arbitration for all disputes. In relation to Dispute Resolution Systems Design Slaikeau and Hasson (1998) present a strategy to develop more cost-effective business dispute resolution systems.

They describe four summary methods of dealing with conflict: avoidance, collaboration, resorting to higher authority, and power plays. Their consulting experience has shown that the majority of existing dispute resolution systems prematurely resort to "higher authority" like arbitration and litigation or "power play" strikes resolution methods before fully exploring the collaborative negotiation, mediation options. A detailed conflict resolution framework template containing four key components is provided by site-based resolution (with an optional appeal to an existing higher authority, such as a supervisor), internal assistance, convening an external ADR, and appealing to an external higher

authority (e.g., courts or governmental agencies). In general, the template includes collective approaches prior to resorting to higher external authority. The usage and sequence of subsequent manuals are entirely versatile following site-based resolution, including the right to "loop back" at any time to a more interactive component. Groton (1997) presents four principles to consider when designing an effective dispute resolution system for construction: consider the unique nature of the construction process. Even when problems turn into disputes, litigation should not be the method used to resolve them. If participants commit in advance to use dispute resolution techniques when problems arise, they create an atmosphere conducive to solving problems.

In the world economic and political system, developed countries have genuinely begun to play an enormously significant role. Many of these nations were colonized by some developed country at one time or another. They have started to play an active role in the exploitation, creation and marketing of their own natural resources since gaining their independence. Since they often lack the technological skills and the resources to pursue such growth alone, in order to expand their share of global trade, they are inevitably dependent on external sources of investment. Joseph T. McLaughlin, (1979) while private investors have been predominantly drawn to economically sophisticated developed nations, in developed countries, they have shown a growing concern.

The shifting balance of economic strength has made markets particularly attractive in developed countries. The government may also insist on any conflict resolution procedures within its own territory. In its deal with the Pan Am International Corporation, for instance, Argentina insisted on a provision calling for arbitration within its own territory, and eventually secured it. And if a government decides to arbitrate in a third country, if the award is detrimental to its status, it may later accuse the arbitral tribunal of prejudice and fail to refer further disputes to arbitration. In the countries of the Middle East, a survey of arbitration practices shows a preference for internal arbitration schemes.

In certain cases, Saudi Arabia and Iran prohibit arbitration in foreign countries and mandate that the settlement of disputes be assigned to their national tribunals. In particular, Saudi Arabian Decree No. 58 of 1963 restricted the power of governmental bodies to send themselves to international arbitration. In the case of a disagreement, businesses entered into negotiations with public bodies in Saudi Arabia cannot avail themselves of international arbitration facilities. The Board of Arbitration of Business Disputes (limited to disputes arising from private contracts) or the Grievance Board, which has

authority over government contracts, is the investor's substitute in Saudi Arabia. In some conditions, the Saudi Arabian Permanent Board of Concession Appeals is also an available forum. Iran forbids arbitration outside its borders in the case of disputes involving governmental contracts. It has an internal arbitration tribunal for the settlement of disputes involving a governmental body or agency. Here, again, foreign investors must submit to the tribunal of the host country in the event of a dispute arising out of a governmental contract, except under unusual circumstances. Disputes between the government of Oman and foreign firms are typically resolved through conciliation within Oman by the Committee for the Settlement of Commercial Disputes. Its decisions are binding and no appealable. Egypt, on the other hand, appears to accept international arbitration without provisos and is a signatory to both the 1972 Convention of the International Center for Settlement of Investment Disputes and the 1958 Convention on the Recognition and Enforcement of Foreign Arbitral Awards ("New York Convention").

In Israel, government agencies will not, as a rule, submit to international arbitration. Accordingly, foreign contractors must agree to submit disputes to local arbitration tribunals. Israel does enforce foreign arbitral awards, if not contrary to public policy, and is a signatory to the New York Convention.

Although some foreign parties contracting in Morocco have been able to negotiate agreements providing for arbitration under the auspices of the International Chamber of Commerce, resort to international arbitration is avoided as much as possible. Most contract disputes are submitted to the national courts or to Moroccan government organizations. For several years, the government of Abu Dhabi provided in its contracts for arbitration under the auspices of the International Chamber of Commerce with the law of the United Kingdom as the substantive law governing the contract. However, recently it has begun to insist upon arbitration in Abu Dhabi under Abu Dhabi law.

In Nepal, the conflict settlement strategies of Krishna P. Kisi, Namhun Lee, Rujan Kayastha, and Jacob Kovel are different from those of developing countries. In the Nepalese background, one distinct issue is that lawsuits for a substantial period of time remain unresolved. Owner-dominated contracts and a lack of information about contractual rights are two of the most common explanations for lawsuits in Nepalese road construction contracts. There have been many developments in conventional and alternate conflict settlement since the latest Arbitration Act 1999 in Nepal (ADR).

This paper explores general ADR practices in Nepal's road construction contracts. This thesis involves a comprehensive literature analysis, focus group research, case studies, and surveys to examine the causes, forms, and rates of the conflicts in the Nepalese road construction industry, along with their settlement activities. In order to rank the causes of statements, relative value index and rank analysis were conducted. Based on their frequencies, the ADR activities in Nepal were also classified and ranked. This study showed that the most prevalent forms of conflicts are arguments relating to modifications, site conditions, and delays. In addition, this study found that the most favored ADR approaches are consultation, adjudication, and arbitration. Therefore, to consider frequencies and sources of claims and recognize dispute settlement practices in order to address them in a timely fashion, it is important for project managers, operators, consultants, vendors, and legal practitioners. In terms of having best ADR practices for Nepalese road development contracts, the authors claim that this study adds to the body of information.

2.4 Conceptual Frame work

The proposed framework for this research is illustrated in figure 2-1. It shows assessing resolution practices with in the project life cycle.

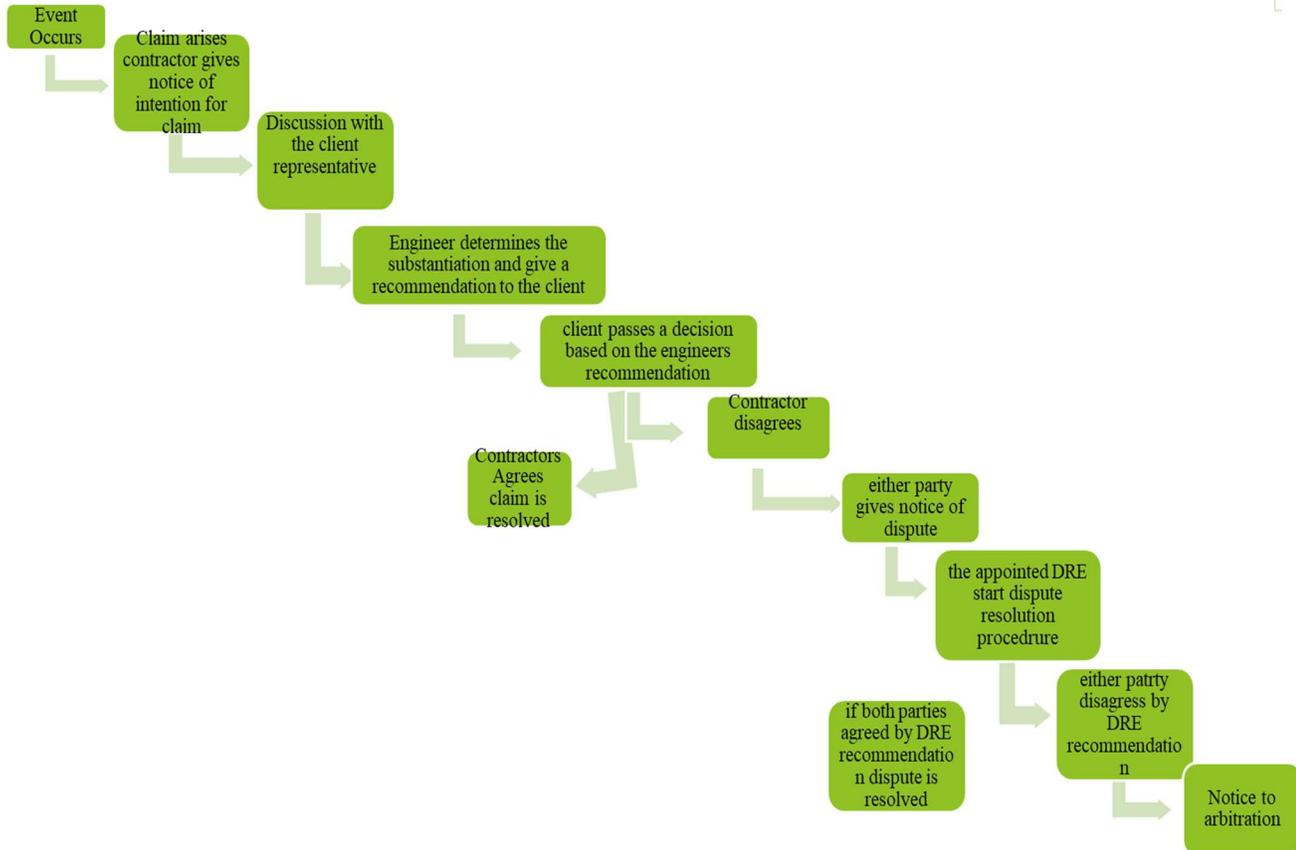


Figure 2-1 Conceptual Framework for assessing dispute resolution practice in Ethiopia

2.5 Summary of Literature Review

The main purpose of this chapter was to develop the theoretical and conceptual framework for the study. Consequently, the chapter highlighted existing dispute resolution mechanisms that can be used as an input in the successful completion of roads construction projects. In a way claims are inevitable in construction projects. They may occur when the terms and conditions of the contract change in such a way that the contractor is unable to recover expenses and profits. In other cases, when the

provisions of the contract documents and specifications lack clarity, a correct interpretation of the documents may result in extra expenditure, which a contractor is forced to cover through claims.

In some cases, where the form of contract transfers the risks to the employer rather than to the contractor, the contractor may be tempted to claim. Such occurrences happen depending on the form of procurement of the services. In the traditional form of procurement of services, where the employer provides the designs and specifications (prepared through a consultant) to the tenderers, the successful tenderer may not assume the responsibility for the completeness of the documents and hence may tend to claim for extra time and money, depending on the discrepancies that he may discover in the contract documents. Being aware of this, the ERA form of contract provides a number of clauses that entitle the contractor to claim for extra time and money.

By reviewing the Dispute Resolution System in Road Construction Projects in Ethiopia, in this chapter of the above section developed a conceptual frame work for the study. The frame work developed, which has project completion as its output, listed the alternative dispute resolution mechanisms by using and guided by the principles of the project management and administration skills. The fact that a contract stipulates a particular procedure or sequence of procedures to be used in resolving disputes does not preclude the use of other procedures, provided that the parties to the contract agree to their use. The contract will often dictate how and when a claim must be submitted and so must be consulted before compiling the claim document. Thus mediation could be used before the dispute was referred to the DRB or DRE. An international contract will also nominate the jurisdiction that is to be applied to the resolution of disputes and this is likely to have an influence upon the type of dispute resolution that is chosen. The circumstances may also affect the choice. If the parties wish to keep their dispute confidential, the less people involved the better, so the least complex procedure, possibly negotiation at a senior level or mediation, would be preferred. Litigation would be eschewed as courts are open to the public.

If the working relationship between the parties is important, either in the context of the ongoing project or because of a desire to work together in the future, particularly if the contractor does not want to jeopardize the possibility of future work with the employer, a more amicable procedure might be indicated. Mediation or early neutral evaluation might be considered. These procedures might also be appropriate if a speedy resolution is important, because either the dispute is affecting progress or is

seriously affecting the cash flow of one of the parties. Adjudication might also be considered in this case as it produces a temporarily binding result and is quicker than arbitration or litigation. The means of resolution should also be appropriate to the scale of the claim, so that the cost of its resolution is not out of proportion to its value.

CHAPTER THREE

3. RESEARCH METHODOLOGY

The study carried out using three-phase approach. The first is to review the relevant literature on the subject matter of dispute resolution on road construction in Ethiopia (from existing knowledge of researchers). In the second phase, a pilot study which took the form of structured questionnaire conducted with road contractors, consultants, the employer ERA construction professionals. If there is any unclear primary data or ambiguity from the questioners, further explanation or information obtained through interviews list with relevant bodies from ERA. In the third phase, the collected primary and secondary data, analyzed by statistical tools such as Cronbach alpha test. Based on the output analysis, conclusions are forwarded.

3.1 Research Design

In order to answer the research question and to draw some conclusion, a descriptive case study design was adopted. The rationale for choosing this method is to attempts to explain while providing additional information about the research topic. This is where research is trying to describe what is happening in more detail, filling in the missing parts and expanding understanding on the theme. Thus, the research design is effectively sought to assess the practices of dispute resolution in the Ethiopian roads authority projects.

3.2 Research Approach

In compatibility of the point or target as expressed above, the primarily techniques that have used to complete this project are research by literature review and survey of the claims and disputes on road projects in Ethiopia. Sources for literature review are from different Literatures, lecturer notes, construction contracts and Ethiopian Roads Authority Claims and Disputes Management Manual, 2018. These sources give loads of information that can assist with examination of the background of the research and nature of all parties' obligation.

In research there are two types of research approaches namely; deduction and induction. In this study, the researcher did not formulate any hypothesis or 'theory' from the beginning, but instead have formulated some research questions which are anchored on the statement of the problem, and research objective. To address these questions, the quantitative and qualitative data were collected, analyzed,

and interpreted. Therefore, for this study, the inductive approach with mixed research method was applied (Saunders et al., 2012).

3.3 Variables, Data sources and Data Collection Methods

Secondary data was collected from reports, manuals, cases on the previous projects and relevant claim and dispute documents from Ethiopian Roads Authority. Primary data is collected through mixed data collection method i.e. Interview and Questionnaire, which was administered to the correspondents by the researcher. The researcher has identified the indicators which were measured during data collection through questionnaires and interviews such as establishment of the organization, project number and type, frequency of claim in the organization, dispute resolution practice in the organization, if there is a separate department for claim and dispute resolution in the organization and so on.

Questionnaire is preferred because it is efficient, cheap and easy to be administered. The questionnaires were controlled personally by the researcher and was collected electronically from respondents due to the current pandemic. The Questionnaire survey and formal interview was conducted among three main stakeholders in the road construction i.e. Client, Consultants and Contractors from October, 2020 to November, 2020. The individuals who were participated in the questionnaire survey and interview are assured the purpose of this study is for academic purpose and they are participated through online questionnaire survey.

The responses for 10 questions were placed on the five Likert scale where 1 very Frequent 2= Frequent 3= Fairly infrequent 4= Fairly Frequent 5 = Infrequent in the application of dispute resolution in Ethiopia.

Table 3-1 Interpretation of Likert Scale

Response	Scale	Interpretation
Very Frequent	1	Very High
Frequent	2	High
Fairly infrequent	3	Moderate
Fairly Frequent	4	Low
Infrequent	5	Very Low

3.4 Population and Sampling

ERA's role regarding rural roads was then limited to rendering support such as overall network planning, training and technical assistance as required by Regional Governments. To cope up with

existing situations, ERA was again re-established by proclamation No. 80/1997 with the objective to develop and administer highways, and to ensure the standard of road construction. With the establishment of the new cabinet of Ministers in October 2001, a Ministry of Infrastructure and later on MoWUD has been formed with the responsibility of developing the infrastructure of the nation.

Ethiopian Roads Authority, which is one of the organizations under the MoWUD and accountable to the Board, is responsible for planning and formulating long and short term plans and programs for road construction, design, maintenance of trunk and major link roads, as well as for administration of contracts under the following region contract project management directorates.

- Central Region Construction Projects Management Directorate have 30 ongoing projects
- North Region Construction Projects Management Directorate have 43 ongoing projects
- South Region Construction Projects Management Directorate have 25 ongoing projects
- East Region Construction Projects Management Directorate have 24 ongoing projects
- West Region Construction Projects Management Directorate have 24 ongoing projects
- Express way contract management directorate have 6 ongoing projects
- Design Contract management directorate have 41 ongoing projects

Target Population is a group of individuals, objects or items having a common observable characteristic which a study is interested in. it is the entire collection of people or things the researcher is interested in. this study was carried out in Ethiopia Roads Authority's Road projects which are administered by central region. Central Region Construction Projects Management Directorate have 30 ongoing projects in progress. Accordingly, claim Experts, Project Managers and Counterpart Engineers on the projects are the different population categories that are considered for the study.

3.4.1 Sampling Frame

A sampling frame is the list of all the items where a representative sample is drawn for the purpose of research. The Ethiopian roads authority has undertaken Business Process Reengineering (BPR) study to bring about the anticipated transformation that would enable the organization to meet its customer's demand in terms of quality, cost and delivery time. In the EFY 2019/20 Ethiopian Roads Authority is administering one hundred ninety five projects by national and international contracts. The sample frame of this study will be thirty ongoing projects in this physical year which are administered under Central Region Construction projects Management Directorate, therefore the total number of the study unit will be thirty ongoing projects.

3.4.2 Sample and Sampling Technique

The purpose of sampling is to gain an understanding about some features of the whole population based on the characteristics of the sample. In this study, the researcher will use purposive sampling to select those respondents who shall best suit the purposes of the study and those believed to have the information being sought. The study will have total number of thirty ongoing road construction projects under Central Region Construction projects Management Directorate as annexed in Annex-1. From these projects professionals who have a direct contractual under the main three contracting parties. The questionnaires were sent to reputable professionals selected from contractors, client/ERA, and consultants that are considered familiar to the road Construction industry in Ethiopia.

In general the population of the study which are the key Experts in the projects was three project directors, five team leaders, fifteen senior engineers and ten counterpart engineers from the client side. From the consultant side thirteen contract engineers and claim experts, five Resident Engineers four Deputy resident engineer were selected. The total of twenty four key professionals from the contractor side were selected in this study which are ten project managers, four construction Engineers and ten contract engineers. These are selected purposefully for the main reason that the data collected from professional who have a close relation with claim and dispute in central region projects can represent the same person in any other cities or towns in the country because of homogenous claim and dispute resolution process without diversity of objectives. Besides this, the writer would get access for collecting data in these area with less inconvenience than the others. The questionnaire survey therefore has included twenty six client's nineteen consultant's and seventeen contractor's representatives in the Central Region Construction Projects Management Directorate.

3.5 Methods of Data Analysis

The researcher analyzed the returned questionnaires and compile the interviews to prioritize the causes of conflicts and issues which clear a path for the formation of claims. Identify the most popular dispute resolution mechanism(s) for road projects in Ethiopia and recommend possible ways to reduce & resolve disputes of these projects.

3.5.1 Reliability and Validity

Reliability has to do with the accuracy and precision of a measurement procedure, Kothari (2004). It refers to the extent to which the data collection techniques or analysis procedures yields consistent findings. In order to achieve reliability of data, in addition to the 5-likert scale, space for respondent's

comments on the particular variables were provided to get respondents understanding on the matter. The respondents' responses from same department were checked for consistency on some of the questions they responded like level of awareness/familiarity about amicable dispute resolution level of participation in construction amicable proceeding satisfaction with the outcome and overall court proceeding you have been involved satisfaction with the outcome and overall court proceeding you have been involved in Ethiopian Roads Authority works on claims & Dispute prevention methods In your opinion, the majority of amicable awards are: Level of performance of local arbitration institute/satisfaction with the outcome and overall process of arbitration you have been involved in Satisfaction in the arbitration procedure.

The reliability of the study data was tested using formula by Excel to calculate the Cronbach's alpha coefficient of internal consistency of the variables which were used in the questionnaire. The Cronbach Alpha test was used to show reliability and reveals the effect of measurement error on the observed score of all respondents. It was used to calculate the effect of measurement error on the observed score of an individual respondent using the standard error of measurement. Further, Cronbach Alpha shows the correlation of items testing the same concept. Using the Cronbach Alpha model, the study was reliable since the correlation value was above 0.5 alpha coefficients as recommended by Tavakol (2011) which is 0.711. Cronbach Alpha ranges in value from 0 to 1 was used to describe the reliability of factors extracted from the study.

Table 3-2 Reliability Statistics

Item	Alpha Value
Main causes of conflicts and disputes	0.668
Dispute resolution mechanisms	0.687
Amicable dispute as resolution mechanism as a practice	0.796
Arbitration as dispute resolution mechanism practice	0.683
Average Alpha Value	0.711

Source primary data

3.5.2 Ethical considerations

The researcher ensures the quality and integrity of this project work. The confidentiality and anonymity of the voluntary respondents is also guaranteed. This independent and impartial project work considered not to cause harm to respondents in what so ever way.

CHAPTER FOUR

4. ANALYSIS AND DISCUSSION

4.1 Introduction

The overall target of the study is to assess dispute resolution practices in Ethiopian road construction industry, and burrow over the practitioners are managing risks, conflicts, claims and disputes in every day situation of local and international contractors in Ethiopian road construction industry. The principle information acquired from respondents are annexed in the appendix -2. In the accompanying examination table, the listed summarized categories show that analyzed, interpreted and summarized data to interoperate the acts of road construction dispute resolution practices.

Table 4-1listed summarized categories

No.	Categories	Responses
1.	Position in the organization	100 percent of respondents have relation with claim and dispute issues
2.	Firm work experience	100 percent of clients have 20+ years of experience from the consultants who are participated in the study 21.74 percent of the respondents have 16-20 years of experience and 47.83 percent of the respondents have 11-15 years of experience and the remaining 30.43 percent have 1-10 years of experience.in the contractor side who are participated in the study 15 percent of the respondents have 6-10 years of work experience and 35 percent of the respondents has work experience of 11-15 years. The remaining 50 percent of the respondents have 16 -20 years of experience.
3.	Projects in the Ethiopian Roads Authority	78.6 percent of them are in charge of 1-5 projects while 17.9 percent are in charge of 6-10 projects. But 3.5 percent of them admitted that they win 10-15 projects.
4.	Number of dispute raised on projects at hand in the last five years	48.3 percent of the respondents encounter one up to five disputes while 3.4 percent of them encounter six to ten disputes. The rest 48.3

No.	Categories	Responses
		percent responded that they will encounter almost zero disputes but have claims.
5.	Assessment regarding causes disputes in the Construction Industry of Ethiopia	34.5 percent of the respondents have answered Financial is the frequent causes of disputes in road construction in Ethiopia. Variation, contractual and delay/ abruptness have 32.1 percent 27.6 percent and 37.3 percent role respectively for causes of disputes in the road construction projects.
6.	Knowledge of preventive dispute resolution	21.74 percent of respondents have a fair knowledge of preventive dispute resolution from the client's representative 52.17 percent of consultants respondents have a fair knowledge of preventive dispute resolution in addition from the 13.04 percent have a fair knowledge of preventive dispute resolution

This study analysis and discussion is done based on the questionnaire distributed and semi- structured interview for the client, consultant and contractors representatives under the Central Region Construction Projects Management Directorate of ongoing thirty road projects. The lists of the projects were taken from Ethiopian Roads Authority official website which is attached in the Annex-1.

The study selected Project Team leaders, senior counterpart Engineers, Resident Engineers Assistance Resident Engineers, Claim Experts, Contract Engineers and Project Managers this is because the researcher believed that the selected professionals have a relevant relation to the study and also have experiences with the research topic under investigation. Acquire project team which are specialized in project management and dispute resolution skill is the process of confirming human resource availability and obtaining the team necessary to complete project activities. The key benefit of this process consists of outline. The project team have a direct control over team member selection because of collective bargaining agreements, use of sub-contractor personnel, matrix project environment, internal or external reporting relationships, or other various reasoning and guiding the team selection and responsibility assignment to obtain a successful team (PMI, 2013).

With regard to year of experience majority of the respondents An aggregate of 79 questioners were circulated for 33 client 22 consultants and 24 contractors representatives and semi-structured interview was conducted with five senior claim experts from each category of respondents who have participated

in the ongoing projects under Central Region Construction Projects Management Directorate. From the distributed 79 questioners 62 questioners are returned back. In order to maximize the response rate by returning questionnaires distributed the researcher has contacted people repeatedly, over and over both before and after giving them the survey and emphasize the respondents their response truly matters.

Table 4-2 Overall survey response level

Group	Questionnaire Distributed	Questionnaire Returned	Response Rate (%)
Client	33	26	79
Consultant	22	19	86
Contractor	24	17	71
Total	79	62	78%

4.2 Practice of Dispute Resolution on Road Projects in Ethiopia

According to the overview, in projects which are under taken for the last five years 48.3 percent of the respondents encounter one up to five disputes while 3.4 percent of them encounter six to ten disputes. The rest 48.3 percent responded that they will encounter almost zero disputes but have claims. In fact, from the consultants and contractors under the survey, 78.6 percent of them are in charge of 1-5 projects while 17.9 percent are in charge of 6-10 projects. But 3.5 percent of them admitted that they win 10-15 projects in Ethiopian Roads Authority.

The above answers of the respondents infers that in excess of 50 percent of them experiences significant measure of potential questions which can lead them to go to court if not solved amicably. We can envision the number of construction disputes will happen in road projects in the country and how local courts will be crowded with these disputes if the disputes are not settled agreeably. This result supports the current practice of Ethiopian Roads Authority that alternative dispute resolution methods are encouraged and generally rehearsed way of dispute resolution mechanism in the nation to solve these flourishing disputes in effective and efficient way.

4.2.1 Assessment Regarding the Causes of Claims and Disputes in the Road Construction Industry of Ethiopia

The intricacy of development venture makes it to confront various types of questions in various stages. In this piece of the survey, consultants and contractors are asked about the kinds and potential causes of disputes they face in executing their road development venture. From the respondents, most of disputes in the current road construction sector in Ethiopia and rank of the potential development of disputes. The results of this study is similar to Aberra B. (2005). Alternative Dispute Resolution Methods in Construction Industry an Assessment of Ethiopian Situation, 62.07 percent of them cited that consultants do not complete the services in scope, insufficient design efficiency, drawings, and requirements at the time of the study conducted on dispute-conflict life between client and contractor. 42.11 percent of the customer-contractor conflict responses check that the delay of the contractors in progress and completion of works, contractors do not meet their plans and liquidated damage occurrences. In disagreements between consultant and contractor, not authorizing payment on time, not responding and agreeing quickly on variations, decisions, drawings, clarifications and directions needed from consultants is 41.38 percent.

As the responses of the respondents survey are portrayed in the respective tables underneath, the financial, variation and Delays/ Disruptions disputes are the causes for the majority of Ethiopian constructions disputes and also improper bidding, improper project management and planning, insufficient contract data and low price quotation, delay or non-removal of RoW obstructions from road and material sources, poor recording and communication, delay of RFI approval, faulty design, improper variation orders, mis-interpretation of the contract terms are the potential for the development of the disputes in the Central Region Construction Projects Management Directorate.

This same statement is also supported by the reviewed project documents, that the potential development of disputes are revealed as per the response of the respondents: Consultants do not complete the services in the scope, inadequate quality of design, drawings, and specifications, in adequate attention for the claims raised by the contractor, poor / not clear contract documents and ROW issues was the main potential reasons listed by the respondents from the consultant and client side. Poor recording, communication and delay on progress & completion of works, not following their plans, occurrence of liquidated damages, and poor project management & planning was listed as potential developers of disputes in Central Region Construction Projects Management Directorate.

Table 4-3 Responses for the types of disputes in road construction industry of Ethiopia

Sources of disputes	Percentage responses				
	Infrequent Fairly	Fairly infrequent	Frequent	Fairly frequent	Very frequent
Financial	10.3	27.6	34.5	10.3	17.3
Variation	7.2	32.1	32.1	21.4	7.2
Contractual	13.8	34.5	27.6	24.1	0
Delays/Disruption	7	13.8	37.3	24.1	17.2

What we can understand from this situation is that escalation of the disputes and/or conflicts to claim can be jointly managed by adapting partnering on job site being with those who are participants of the project by adapting preventive type of dispute resolution mechanisms as discussed in section 2.1.6.3 of this thesis.

Table 4-4 Potential Development of Disputes

No.	Causes of Dispute or Conflict	No. of Respondents	Percentage
1	poor design	18	62.07
2	poor recording and communication	12	41.38
3	Poor project management and planning	9	31.03
4	Poor/ not clear contract document	8	27.59
5	In adequate attention for the claims raised by the contractor	7	24.14
6	Delays in work progress	6	20.69
7	ROW issues	5	17.24
8	improper bidding	1	3.45

4.2.2 Assessment Regarding Dispute Resolution Mechanisms on Road Projects in Ethiopia

Cole, G.A. (2002) training can achieve high morale, lower cost of production, lower turnover, change management, Provide recognition and give a feeling of personal satisfaction and achievement, hence, the studied organization needs at least one formal short term training and more refreshments yearly.

In this section, the 14.3 percent respondents replied the claims were settled by arbitration and 71.4 percent by negotiation, 5.2 percent by litigation and the remaining 9.1 percent are not yet settled even

though Engineer have given his determination since the Employer has also to give his own assessment on the claims. In the literature review section 2.1.5.3 as per the Conditions of the Contract when parties are unable to settle their disputes amicably and chooses arbitration, the final decision on claims is given to the contractor not the engineer since in arbitration parties select arbitrators by themselves to reduce overall cost of the resolution.

Similar to Ethiopian Roads Authority practice, at the early Stage of the preferable project, taking account of its size, duration and fields of expertise which will be involved will appoint a one-person or board dispute Adjudication by the employer suggestion or by comparing acceptable persons for dispute adjudication board through curriculum vitae tendering according to Ethiopian Roads Authority, the respondents answered from experience the majority of the disputes in the Ethiopian Roads Authority are dealt by professionals with relevant experience, 55.6 percent of arbitrators have both legal and professional background, 33.2 percent of arbitrators have professional background and the remaining 11.2 percent of arbitrators have only legal background For the question how is your level of awareness/familiarity about arbitration as dispute resolution methods were 22.2 percent very familiar ,44.4 percent are familiar and fairly familiar, fairly familiar and unfamiliar are 11.1 percent in the contrary 11.1 percent of the respondents are totally unfamiliar with arbitration.

From these responses of respondents, even though most of the respondents are familiar with arbitration, there is an indication of lack of familiarity in the major stakeholder's professionals that undertake road construction projects in the country. This shows that still awareness creation and participation of preventive dispute resolution mechanisms should be done about arbitration dispute resolution in addition to preventive dispute resolution for road construction parties of the country. Here below is also the participation level of the respondents in any arbitration proceedings.

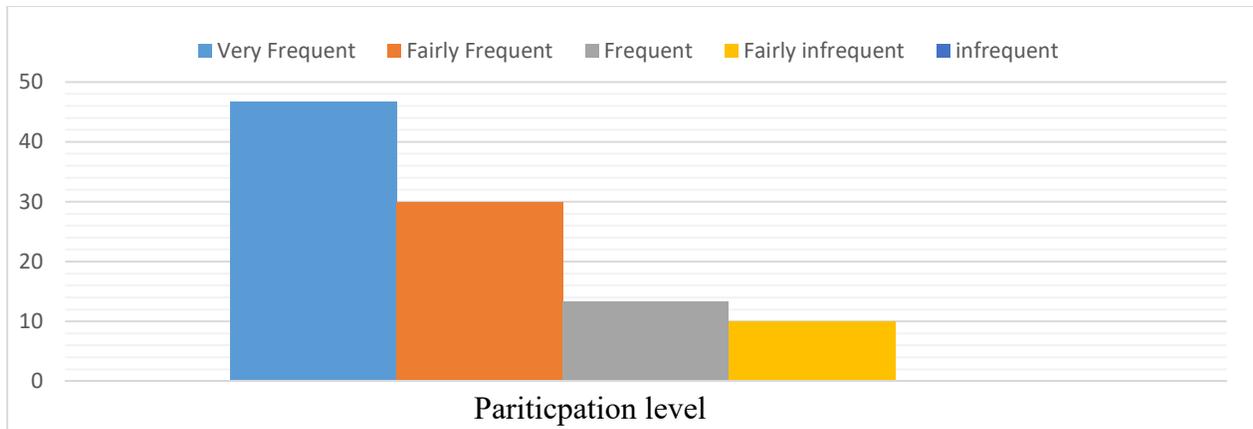


Figure 4-1 the participation level of clients, consultants and contractors in amicable proceedings

As it is seen from the chart, more than 46 percent of the respondents are frequently participated in amicable proceedings and 10 percent of respondents are new for them. They have rarely experienced the merits of amicable practically. Again this shows that still awareness creation programs should be designed by the responsible bodies in ERA in order to indicate the advantages of arbitration and local and international arbitration institution for parties in the construction sector in order to avoid additional cost and time to resolve dispute.

In this section 90 percent respondents also do not consider court/ litigation as effective means of dispute resolution method and have not solved dispute through formal court proceedings, therefore this answers the question of their satisfaction level during their involvement in court dispute resolution method or trials which is 80 percent indifference. This implies that the outcomes of arbitration proceedings are more satisfactory than the outcomes of court proceedings in the case of Ethiopian Roads Authority this can be assured from the overview of the respondents involved in the arbitration procedure satisfaction survey.

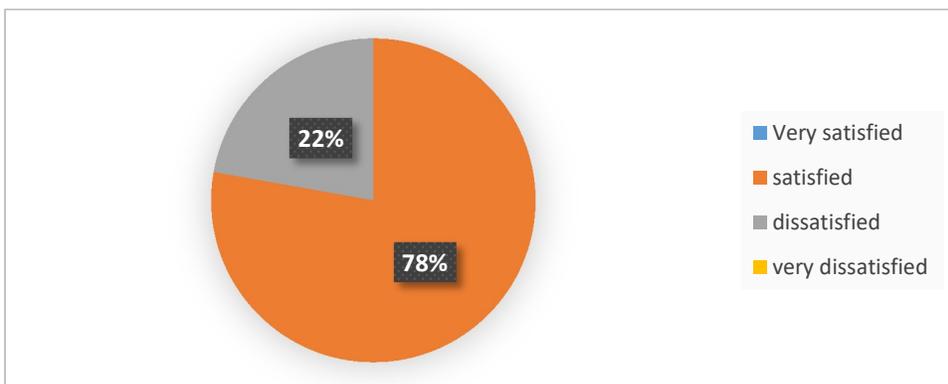


Figure 4-2 Satisfaction levels of respondents involved in arbitration proceedings

In the table underneath, the term to tackle disputes through amicable and court procedures are arranged beneath, from the table the court dispute resolution has taken a lot of protracted cycle than intervention in settling arbitration in solving disputes emerging from road projects in Ethiopian Roads Authority.

Table 4-5 Time taken to solve dispute through arbitration proceedings

Duration	Time taken to resolve the dispute
<6 Months	68.3
6 Months -1Year	22.6
1-2 Years	9.1

Table 4-6 Time taken to solve dispute through court proceedings

Duration	Time taken to resolve the dispute
<6 Months	7.6
6 Months -1Year	16.7
1-2 Years	62.6
> 2 years	13.1

At last, as shown in the table 4.7 even though 55.6 percent of arbitrators have a legal professional background dispute resolution road construction projects in the case of Ethiopian Roads Authority uses arbitration dispute resolution mechanisms, from the two arbitration types 87.40 percent of respondents have used institutional arbitration form and 12.60 percent of Ad-hoc arbitration type of arbitration as it is shown in the underneath chart. This result supports the discussion section 2.1.8 in which the contract requires the parties to attempt amicable settlement if that is not the case, institutional arbitration (local or international) can commence after notice has been given to the parties.

Relations between the construction industry especially with private contractors and government departments have also been typically characterized by conflict and distrust due to low bid price and this also have contributed to poor project management performance (Abera Bekele, 2005).

All contract provisions are ultimately meant to avoid dispute among contracting parties. It can be seen from the respondents one of the reason to Disputes arise is when parties breach the conditions set in the contract. Prevention would be materialized when obligation is exercised and proper risk allocation is stated. In this section the client, consultant and contractor representative respondents which are 21.7 percent, 52.17 percent and 13.04 percent respectively have a fair knowledge of preventive dispute resolution. From this response, Ethiopian Roads Authority clear form of standard contract does not

prevent disputes from arising. This is because, if a risk event occurs, the contract is not clear as to which party is responsible for it in result this might increase the potential for disagreement in addition to poor practice in claim substantiation in Ethiopian Roads Authority contracts.

To assess the level of the practice of claims substantiation in Ethiopian Roads Authority contracts questions was presented to the stakeholders in the project and therefore 83.3 percent of the respondents answered the Ethiopian Roads Authority practices in contracts that claim will be filed by the contractor supporting with all relevant details to substantiate his claim the Engineer will review and determine the entitlement as per the provision of the contract and will forwarded to the Employer then the employer will review the Engineer's determination along the Contractor's submission and give an approval if the parties are agree on the approved decision/determination, issues settled, if not parties are at liberty to go for DRE (Dispute Resolution Expert for further review and decision) and notified to the respective parties if parties agree, issues settled, if not, go for further amicable settlement if agreed, issues settled, if not, refer for arbitration/court to the question asked by the researcher what is the practice of claims substantiation in Ethiopian Roads Authority contracts the remaining 16.7 percent of the respondents answered the practice didn't show the compliance with all conditions precedent to claim and the substantiation of all statements, calculations and demonstrations by reference to project records, the contract or other supporting documentation. From this result it has become clear to the researcher employers and consultants have often to deal with unavoidable disputes and how it might be resolved at an early stage before it escalates to more costly and complex procedures culminating in arbitration or litigation.

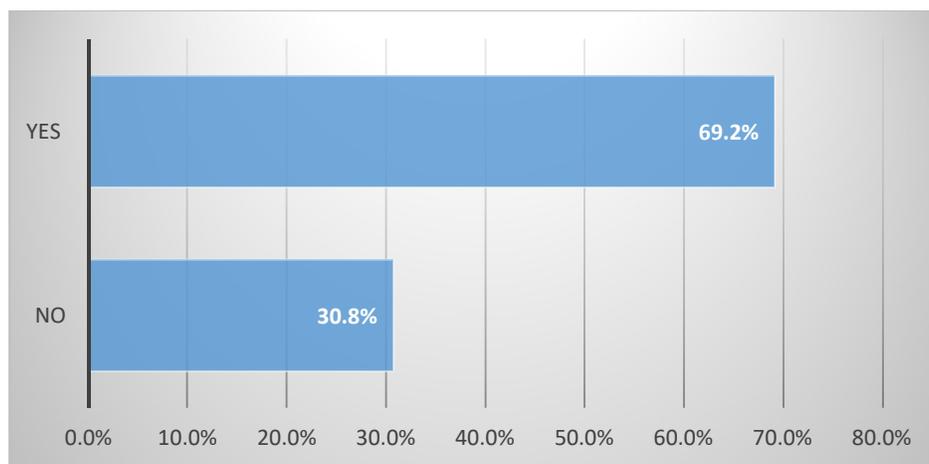


Figure 4-3 Response on decision acceptance

4.2.3 Assessment Regarding Dispute Resolution challenges on Road Projects in Ethiopia

In relation to this as shown in figure 4-4 the respondents were asked if provision for dispute settlement discourages domestic contractors to the referred Authority i.e. to accept the decision made by the engineer even if they are dissatisfied. Why? 69.2 percent of respondents answered the provisions for dispute settlement are fair and accept the decision because contractors are afraid of additional cost and time to resolve the dispute, think ERA have the best structured guide line, contract conditions & provision, contract administration in nationwide and think since ERA is a federal client on road sector contractors are afraid of getting in conflict to avoid getting in to grudge with the client in order to get another project.

However, 30.8 percent of respondents answered contractors not accept the decision made by the engineer if they are dissatisfied because Employer can have more pressure on the consultant as in the most cases and they think they can win as long as they follow substantiation of claims as per the contract agreement. This result supports literature review section in this thesis, not all the options available for dispute resolution result in a binding determination. Any decision reached by one of these procedures is only temporarily binding at best until one of the parties elects to challenge it by proceeding to the next stage or to arbitration or litigation within a prescribed length of time.

The very feature of amicable settlement is that the disputing parties shall have full control both over the process & the outcome even at the early stage of the dispute 54.5 percent of respondents have said time for dispute settlement through amicable resolution have taken a time as per the following table.

Table 4-7 Time for dispute settlement

	Percentage
Fast	9.1
Moderate	54.5
Late	36.4

As revealed in the table 4-7, respondents choose sides between the opinion of the amicable awards 72.6 percent of the respondents indicated that amicable awards are fair and just, the remaining 27.4 percent of respondents answered it is biased.

Table 4-8 opinion of the amicable awards

	Frequency(f)	Percentage
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Fair and just	45	72.6
Unfair and unjust	-	-
Biased	17	27.4
Legal unacceptable	-	-

4.2.4 Main Results Obtained Through Interviews

In this study, a semi-structured interview was conducted with five senior claim experts from each category of respondents. The results of the qualitative analysis of data and information obtained through the interview are summarized and presented below.

The first question raised by the researcher for each professionals was what does the construction dispute mean to you? All respondents define Construction dispute may take different forms: dispute in relation to time; dispute in relation to cost; dispute in relation to both time & cost.

The second question raised for all experts was what does the term risk mean to you? Majority of the clients defined risk as a problem. Most of the respondents consider risk as a negative event that can affect the project and cause problems. Consultants defined risk as probability of uncertainty and most of them mentioned that it gives more theoretical knowledge for consultants. Contractors defined risk as “it is an opportunity to get or loss. In my concept, risk has different meaning regarding to the given project and participated actors. Through my experience risk is always transferred to contractors and stakeholders are not alerted for the benefit of risk and loss of the project. Due to this, contractors have forced to negotiate with the project partners rather than practiced, managed and minimized the losses of road construction risks”.

What does project management mean to you? Response of respondents in general about project management is it is managing a project in order to have a successful deliverable through different techniques like analysis and planning techniques, Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM).

How do you understand project life cycle in road construction projects? Like other construction projects road construction projects share a project life cycle; initiation, planning, implementing monitoring & controlling and close out. In the stage of initiation problem identification and need assessment is done, at the stage of planning the designs and feasibility study is conducted by the public

body or external consultant. If projects have approved the implementation phase will be begin by contracting a contractor.

What does the term risk management mean to you? Risk management is a process that all parties should participate actively, and shared the benefits and losses. Within three groups of actors, the respondents think contractors were the most active in performing risk management.

What does dispute resolution mean to you? Dispute resolution describes a generally recognized procedures that can be used to settle disputes by different mechanisms.

What do you suggest to mitigate disputes in road construction projects? Respondents answered this question by emphasizing all actors should be participated in all phases in project life cycle by providing more information and clear understanding about the ongoing processes and progresses of the project rather than waiting report from another main stakeholders.

What preventive measures should take ERA to improve the involvement of consultants and contractors in the preventive dispute resolution methods? 50 percent of respondents said Partnering in the construction industry, there are expert neutrals who may be advisors jointly employed at the beginning of the relationship of the contracting parties for the purpose of preventing disputes rather than allowing issues to grow until they become real disputes. These include collaborating, a unique concept in dispute resolution, that is proactive and which may prevent disputes. It attempts to deal with problems before they arise, by establishing good working relationships amongst all the parties.

4.3 Discussions

Most respondents found road construction claims as a negative event in the practices of road construction claims and dispute resolution in Ethiopia that can impact the project and trigger problems. That being said, alternative dispute resolution approaches and arbitration to be in place to settle such conflicts avoiding litigation resolution methods by industry-related experience and technicalities because the time requirement for the execution of such contracts also requires, this shows, knowledge of conflict management of road construction and implementation of risk allocation practice is still limited.

Client is a party that owes a project who should be an active participant on claims and risks management of practice and demand from the other stakeholders. In current practices of the ERA, there are limited interests to incorporate claims and disputes to road risk management in the early phases of road construction. The participation of the stakeholders on the road project phases can be generally explained that in the traditional procurement option, which is client requests the consultant to prepare the design, the contractor executes and delivering the project. The practices limit the participation of consultant only in design phase and accumulate more risk on contractor. Trailing to this, from the result of this study, Contractor's practice in claim substantiation is poor and contractors usually submit claims when the completion time nears its end to avoid liquidated damages payment which limits the participation of stakeholders in the early phases which is the main challenge in dispute resolution in ERA and led the consultants believe that preventive dispute resolution mechanisms are not applicable in ERA.

Therefore, from the results of the finding and literature reviews the higher degree of importance participation of stakeholders on road construction dispute resolution management practice should implement equally in all phases of the project life cycle. Before the contract is awarded and the notice to proceed is issued to the contractors a general meeting shall conduct regarding the responsibilities of all parties in the construction and shall come to a common understanding to the risk allocation contract provisions.

Abdissa D. (2003) in his research shows the majority of disputed claims raised in Ethiopian construction industry by local contractors are settled by amicably. The practice of dispute resolution by local contracts using negotiation is 85.71 percent the study result also shows most local contractors have the problem of identification and notification of claims situation and listed the problems in claims management seen in Ethiopian construction industry. In line with this this study shares the results that have shown and recommendation given in Abdissa D. (2003) like lack of awareness of claims situation, most local contractors do not give notice of their intent for future claim when the problem arises they claim when they encounter shortage of money or time, the traditional procurement system since road construction is a part of the construction industry in Ethiopia.

Accordingly, the researcher feels that preventive dispute resolution management with flexible dispute resolution frame work should be incorporated in the current and future road construction projects as

alternative dispute resolution mechanism. depending the results from this result Preventive Techniques (including Dispute Potential Index, Risk Assessment, Risk Allocation, and Partnering) must be included & awareness must be created in which this the participant parties to be aware of road construction risk and clients facilitate the choices on selection of an appropriate procurement option because costs of changing in the program phase are less than cost of production phase. Lack of effective road risk management in construction projects causes failures, because of unmanaged risks made in the early stages of road construction process a poorly designed project-delivery approach or the wrong decisions about procurement option can also lead to delays, higher costs of project and poor quality. Road Project risk management has to be a core element of project selection, planning, design, and continuous through the entire life cycle of the project.

For each stage of a project, there are some common questions forwarded for risk assessment: which risks is the project facing? What is the potential cost of each of these risks? What are the potential consequences for the project's later stages as a result of design choices made now? Risk ownership: which stakeholders are involved and which risks should the different stakeholders own? What risk-management issues do each of the stakeholders face these questions helps to determine the preventive dispute resolution mechanism has been done to mitigate claims and disputes.

Through this research it is shown that the use of a clear form of standard contract does not prevent disputes from arising. However, there are fewer sources of conflict. This is because, if a risk event occurs, the contract has already allocated risk between the parties makes it clear which party is responsible for it this reduces the potential for disagreement. Even though ERA is addressing the methods to be used to resolve a dispute, it should be forceful about the necessity to give early notification of disputes and to keep comprehensive contemporary records.as discussed above, it is desirable that the dispute resolution procedure should be phased and progressive. This allows a dispute to be resolved at the earliest opportunity using a minimum of resources and causing a minimum of disruption.

4.4 Gaps identified in the study

The gaps observed in the study are discussed below:

4.4.1 Statistical Information Gaps

In Ethiopian Roads Authority, there are few public and centrally organized statistical information regarding claims and disputes especially for the ongoing projects. The study has investigated claims and disputes with the exception that are not confidential so that the parties and their dispute are subjected to public scrutiny.

4.4.2 Gaps Observed in the Stakeholders Role

The major stakeholders in the construction industry are clients, contractors, consultants, and regulatory bodies. In this study, significant gaps observed that the legal bodies (courts) and legal department of the authority have insignificance role in dispute resolution.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATION

5.1 Conclusions

Disputes between parties to construction projects are of great concern to the industry; however, the subject is dominated by story and hearsay. Factors causing construction industry disputes must be researched in a rigorously structured manner. In this study, literature review section we have seen the three main types of dispute handling, preventive, amicable and judgmental.

However, Ethiopian Roads Authority projects dispute resolution practice. It may be worth noting that, while the adjudicative techniques used for dispute resolution are based on rules and laws of evidence, the debate that surrounds construction industry disputes seem to require no such evidence. At law, a party to a contract making claims for delay or expense or both is expected to prove its case. Commentators and researchers on construction disputes and conflict must expect to do the same. This paper presents evidence supporting the view that certain contracts may contribute to the frequency of disputes, and that therefore some contracts may cause more disputes than others.

Similar research into other causal factors may allow the development of a predictive model, allowing the parties to be aware of, and perhaps avoid, factors which cause dispute. Endnotes the confusion appears to have arisen with the development of international conflict management strategies, an approach in which the term 'dispute' is used rarely. Of course a conflict management technique may be made binding by mutual agreement, in much the same way as non-binding mediation can be converted to a binding solution by agreement between the parties.

For the question "what is the current dispute resolution practice on road projects in Ethiopia?", almost all respondents agreed that they wish to use and are applying amicable dispute resolution mechanisms like negotiation before DRE, arbitration, or litigation is applied to avoid time and involvement of third party. This shows the preventive dispute resolution mechanism in the road construction industry has a minimum attention, the strategy to respond to problems in a timely manner, creating good communication among project teams, management and good supervision for road construction projects conflict resolution in Ethiopian roads authority is well structured and appreciated to be taken as a best practice. Thus a more effective approach would be a dispute resolution system that

emphasizes prevention in addition to resolution that includes the flexibility to determine the most appropriate ADR method (or combination of methods) for each dispute, in an effort to find the “least invasive procedure” that has a strong likelihood of success is necessary in the authority.

The summary from the respondents show frequent descriptive study of road construction disputes, and the causes of those disputes, is essential. In fact, it would seem that effective management action can be taken only if based on reliable evidence. From the results above the researcher strongly agrees such a system would address key industry concerns, those most commonly being the cost and time required to resolve the dispute, and then the procedure to be followed in dispute resolution can be included in the Conditions of Particular Application prior to tender or it may be left to joint agreement between the parties to the contract post tender and pre award so that both parties agree to and have ownership of the processes.

The event of construction claims and disputes in the Central Region Construction Projects Management Directorate indicates that the current approach to dispute resolution practice in Ethiopian Roads Authority isn't adequately compelling. The longing (and/or pressure) to finish the project and a lack of resources for identifying the root cause of the problem contribute to the danger of delaying the intervention necessary to resolve disputes, minimum number of professionals with both professional and legal background for cases litigation is the most appropriate recourse, or the establishment of a legal precedent is sought was identified as the main challenges of the practice in the authority in this study are the listed challenges to the dispute resolution in addition to contractors' late claim substantiation since timely intervention can prevent reoccurrences of the same problem later in the construction process. Too often in Ethiopian Roads Authority projects, contractors submit an all-inclusive claim at the end of the project, frequently fostering an adversarial atmosphere that threatens potential collaboration between the parties on future projects. Ethiopian roads authority has to understand from the current situation disputes are vary in nature, and disputes can more efficiently resolved through different methods through frequent study on this matter. Following the above discussion of the research, the following conclusions are drawn.

1. In Ethiopian roads construction industry, dispute resolution tends to be addressed by specifying the resolution method(s) to be used in the conditions of the contract, this “pre-ordaining” method may by chance can result in the misunderstanding of methods that are available and

probably preferable and will might not clearly consider the nature of the dispute in different projects, and may in fact limit the parties' in consideration of possible resolution methods.

2. Alternative dispute resolution methods weather they are amicable or judgmental they are too frequently viewed as separate choices. Effectively combined dispute resolution methods can be into more broad processes, where this synergy can be exploited to successfully resolve the claims and disputes raised. A more effective approach would be a preventive dispute resolution system that emphasizes prevention in addition to alternate dispute resolution mechanisms value by assisting the project team in the development of applicable dispute prevention techniques, which include risk assessment and allocation, including detailed project scope definition, partnering, including creating a set of common project goals, and Contract clauses that outline a flexible framework for dispute resolution.
3. Proper risk allocation and identification of disputes prone which frequently leads claims and dispute at the early stage of project life cycle which provides the basic frame work frame work for managing the projects are the major way of preventive dispute resolution; typically, when the owner uses contract language to unfairly shift the risk to the contractor without appropriate compensation which in present projects approach whereby prospective bidders identify risks that would cause them to increase their bid price.
4. As noted at the outset of this research perspective, the construction industry is at the forefront of finding ways to resolve disputes without resorting to litigation. While nearly low application to the Preventive Techniques (including Risk Assessment, Risk Allocation, Dispute prone index and Partnering) practice.
5. Project success is depends on the combination to the core and facilitating knowledge areas of project management. Ethiopian Roads Authority has a well-structured Core knowledge (time, scope and cost) management as a strategy however, unlike to core project management knowledge areas a lesser attention has given to facilitating knowledge areas like integration management, risk management and project communication management, project stakeholder management.

5.2 Recommendations and Proposal for Future Studies

This study tried to address the gaps associated with preventive dispute resolution practices in the local road construction industry. The researcher believes further work on the area is vital to guide the industry through the efficient risk allocation partnering issues in the industry.

- Study on the practice and awareness of preventive dispute resolution practices on road construction projects in Ethiopia as compared to other country's practices.
- Study on initial claims and dispute resolution practice.
- The effect of preventive dispute resolution on the success of projects.
- Study of combined dispute resolution methods

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APPENDIXE- 1

QUESTIONNAIRE COVER LETTER

Dear Sir/Madam,

I am undertaking a research survey on Dispute resolution mechanisms in road construction projects in Ethiopia by focusing Ethiopian Roads Authority practices and challenges. The research is an individual research project as part of my study for Master's Degree in Project Management at St. Mary's University.

The attached questionnaire attempts to survey the Practice and challenges of Dispute resolution on road projects in where the main theme of the research revolves around assessment of risk allocation in between the parties, and claim substantiation and dispute resolution procedures adopted dispute resolution mechanisms and practices in the stakeholders participated at the time of project.

The findings of this study will then be compared with the current standard conditions of contract, namely Public Procurement Agency - PPA. Hence, it is hoped that the research will provide a substantial input to the new and currently adopted contract procedure considering the development stage of the construction industry in Ethiopia.

I would be very grateful if you could kindly take your invaluable time to complete and return this questionnaire.

Regards,
Bersabeh Eshetu

11. Do you have a professional staff member who is responsible for claim cases in your organization? (Please write his/her main duty and responsibility) _____

SECTION TWO – QUESTIONS RELATED WITH CLAIMS AND DISPUTE

12. What are the reasons for disputes in the construction industry of Ethiopia according to your opinion? Where is the potential for the development of the disputes?-----

13. How many projects do you currently have on hand ?-----

14. From Projects at hand how many projects have claim and dispute?-----

15. What was the cause of the claim?

- i. Employers breach of contract
- ii. Third Party
- iii. Variation
- iv. Contractors breach of contract
- v. Delay/disruption

Please specify if any other causes for the claim-----

16. How would you describe the majority of Ethiopian constructions disputes? (please mark one box for each of them)

	<i>Infrequent</i>	<i>Fairly</i>	<i>Frequent</i>	<i>Fairly</i>	<i>Very</i>
	<i>Fairly</i>	<i>Infrequent</i>		<i>frequent</i>	<i>frequent</i>
Financial disputes					
Contractual disputes					
Defective work disputes					

Variation disputes					
If other, please specify					

17. How was the claim settled?

- i. Negotiation
- ii. Litigation
- iii. Arbitration

(if any other or combination of the above please specify) -----

18. If your answer for Q17 is court, what are your reasons for not using arbitration as your final dispute resolution method? _____

19. How is your level of awareness/familiarity about arbitration as dispute resolution method?

- Very familiar
- Fairly familiar
- Familiar
- fairly unfamiliar
- Unfamiliar

20. How would you describe your level of awareness/ familiarity about amicable dispute resolution as dispute resolution method?

- Very familiar
- Fairly familiar
- Familiar
- Fairly familiar
- Unfamiliar

21. How do you describe your level of participation in amicable dispute resolution proceedings?

- Very frequent
- Frequent
- Infrequent
- Fairly frequent

Fairly in frequent

22. Do you know the Arbitration Institute of the Addis Ababa Chamber of Commerce and Sectorial Associations?

Yes No

23. Have you ever solved your dispute through formal court proceeding?

Yes No

If yes

23.1 How long did it take from its commencement up to its end (if more than one, in average)?-----

23.2 How do you describe your satisfaction with the outcome and overall court proceeding you have been involved in?

Very Satisfied Dissatisfied
 Satisfied Very dissatisfied
 Indifference

24. What were your reasons to use court proceeding instead of arbitration?-----

SECTION THREE – QUESTIONS RELATED WITH DISPUTE RESOLUTION PRACTICE

25. Does works contract in Ethiopian roads Authority have a separate section how to prevent claims and disputes?

26. Ethiopian Roads Authority works on claims & Dispute prevention methods?

Very frequent
 Frequent
 Very infrequent
 Fairly frequent
 Infrequent

27. What do think the major challenges of dispute resolution practice in Ethiopia? _____

28. What is the practice of claims substantiation in Ethiopian Roads Authority contracts? _____

29. Does the contractor submit every month of all claims as per the provision in the standard conditions of contract? If no what do you think the reason is?-----

30. Do you think that the provision for dispute settlement discourages domestic contractors to refer to the Authority i.e. to accept the decision made by the engineer even if they are dissatisfied?

Yes/No (Underline), state reason-----

31. How do you see the time limits set for dispute settlement?-----

32. Do you think the reasons for the intent to claim that the contractor submit are genuine?

Yes /No (Underline), state the reason-----

33. Do you think the contractors and consultants who are working with your office have adequate knowledge about dispute resolution? -----

34. Which of the following arbitration form have you used?

Institutional

Ad-hoc

35. How long did it take from the commencement of the project amicable dispute resolution take?--

36. How do you describe the time you specified on the Question above?

Fast

Moderate

Late

37. In your opinion, the majority of amicable awards are:

Fair and just

Unfair and unjust

Biased

Legally unacceptable

38. From your experience, the majority of arbitrators are:

Legal back ground

Professional background

Legal and professional background

Neither legal nor professional background

39. What do you say about the performance of local arbitration institute/s?

Very good

Not good

Good

Very bad

Fair

I don't know

40. How was your satisfaction with the outcome and overall process of arbitration you have been involved in?

Very Satisfied

Dissatisfied

Satisfied

Very dissatisfied

Indifference

41. Are you able to tell from your experiences, how satisfied the involved parties are with the outcome of an arbitration procedure?

Very Satisfied

Dissatisfied

Satisfied

Indifference

Very dissatisfied

SECTION FOUR – QUESTIONS FOR THOSE WHO ARE UNFAMILIAR WITH ARBITRATION

42. What is/are your reason/s for your unfamiliarity with arbitration as a dispute resolution method? -

43. In what way do you solved dispute when they are occurred?-----

INTERVIEW QUESTIONS

- 1) What does the construction dispute mean to you?
- 2) What does the term risk mean to you?
- 3) What does project management mean to you?
- 4) How do you understand project life cycle in road construction projects?
- 5) What does the term risk management mean to you?
- 6) What does dispute resolution mean to you?
- 7) What do you suggest to mitigate disputes in road construction projects?
- 8) What preventive measures should take ERA to improve the involvement of consultants and contractors in the preventive dispute resolution methods?

APPENDIXE- 2

List of Ongoing Projects under Central Region Contract Management Directorate