

**EFFECTIVENESS OF ALTERNATIVE DISPUTE  
RESOLUTION METHODS IN THE RWANDAN  
CONSTRUCTION INDUSTRY**

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**Effectiveness of Alternative Dispute Resolution Methods in the  
Rwandan Construction Industry**

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**DECLARATION**

This thesis is my original work and has not been presented for a degree in any other University

Signature.....  Date ..... 08/10/2021

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This thesis has been submitted for examination with my approval as

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**JKUAT, Kenya**

## **DEDICATION**

I dedicate this research to my family for showing me the importance of education.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>ADR:</b>	Alternative dispute resolution
<b>DB:</b>	Dispute boards
<b>FIDIC:</b>	International Federation of Consulting Engineers
<b>GCC:</b>	General conditions of contract
<b>KIAC:</b>	Kigali International Arbitration Centre
<b>MIGA:</b>	Multilateral Investment Guarantee Agency
<b>RDB:</b>	Rwanda Development Board
<b>RPPA:</b>	Rwanda Public Procurement Authority
<b>SCC:</b>	Specific condition of contract
<b>UK:</b>	United Kingdom

## ABSTRACT

The construction industry is laden with a lot of project performance issues which usually lead to disputes between the Employer and the Contractor. This study investigates the effectiveness of the alternative dispute resolution methods. The objective is to determine the causes of disputes, the level of application of dispute resolution methods, the effectiveness of the existing dispute resolution methods and the methods of evaluating and managing disputes in case of future projects. Quantitative and qualitative research methods were used in the study. The study population was the professionals in the built environment and the adjudicators/arbitrators. The study findings indicated that the main causes of dispute in construction projects in Rwanda are payment for variations, extension of time, cost escalation, retention money, wrongful termination of contract. loss of profits, delays in site possession, compensation for machinery and equipment confiscated by the employer, interest on delayed payments, return of the guarantee held by the employer, and costs related to the resolution of the dispute. Alternative dispute resolution methods are usually adopted on delay issues, poorly written specifications or lack of specifications, poor plan or drawings generally, poor level of workmanship, unauthorized works that are done by the contractor and defective works. The order of the effectiveness of the alternative dispute resolution methods is negotiation, mediation conciliation, facilitation, adjudication, dispute boards, arbitration, and arbitration-mediation. Based on the findings, the study concluded that the major causes of disputes need to be guarded against and in case disputes eventually occur, negotiation and conciliation methods should be given the first priorities. The study recommended that the government should put in place, strategies that are aimed at mitigating disputes on construction projects. Professional bodies should enlighten professionals to always be ethical in their discharge of duties.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

The construction industry is one of the major industries contributing significantly to the socio-economic development growth of a county (Muturi, 2014). In Rwanda, the construction sector is a key and potential driver of economic growth (RDB, 2014). By the fiscal year 2014-2015, the expenditure on development projects in Rwanda was 784.1 billion Rwanda Francs, which is equivalent to 44.7% of total budget (MINECOFIN, 2014). The later report shows that part of this expenditure was on construction projects as the country rebuilds its basic infrastructure after many years of underdevelopment particularly after the 1994 Genocide.

The construction sector plays an important role in Rwanda's economy both in its contribution to the national economy and employment creation. According to the report of the International Labor Organization (2019), data from the past five years shows that the construction sector contributes around 7 per cent to national GDP, and 8 percent to national employment. Furthermore, the construction sector is expected to grow by 9 per cent per annum until 2021, which is the second fastest growth rate in Sub-Saharan Africa (International Labor Organization, 2019).

Despite the unique role in the national economy, the construction sector in Rwanda is still facing a rising number of disputes between parties to the contract as a result of many factors which include: project delays, high level of project variation, poor planning, poor quality cost overruns, and lack of acceptance by the stakeholders or end users at project completion (RDB, 2014). Construction industry is among the industries that are ridden with most conflicts and disputes and this has resulted in it being one of the most claim-orientated sectors in Rwanda (Statement, 2016).

Traditionally, parties that enter into litigation, often find it costly and a long-winded means of resolving disputes. Over the years, various methods of alternative dispute resolution (ADR) have been introduced into the construction industry as a means of avoiding lengthy and expensive litigation. The available ADR are: (a) mediation- in this process, the parties work with a mediator to negotiate a settlement to their dispute. The mediator is a neutral party who has no vested interest in the outcome and is trained to facilitate a settlement between the parties. In addition, for construction disputes the mediator usually has experience in the construction industry; (b) adjudication- is a method of resolving construction disputes without involving a prolonged legal process. Instead, both parties meet with an adjudicator who acts as a judge in the case. Once both sides have laid out their side of the dispute, the adjudicator helps them reach an agreement; (c) arbitration- in arbitration, arbitrators are drawn from professionals in respective areas and in construction industry these are architects, quantity surveyors and engineers; (d) expert determination- is a means by which the parties to a contract jointly instruct a third party expert to decide an issue between them; and court proceedings- is the process of engaging in or contesting legal action in court as a means of resolving a dispute. The court is able to enforce or determine one party's rights or obligations (Derrick, 2016).

In the construction, industry many contractual disputes are prone to arise between different parties as projects advance with time. It is because of this that a third party will frequently be agreed upon by the employer and the contractor to resolve any issues or disputes that may arise. In Rwanda, as construction projects are becoming increasingly complex, more complex contract documents are being made (Sayegh et al, 2020). This in turn results in more challenging claims and disputes. Many forms of construction contracts are used in Rwanda such as the FIDIC forms of contracts, World Bank, Rwanda Public Procurement Authority (RPPA) and other private forms of contract. With all these forms of contract, there arises the problems of misinterpretation, omitting or adding some clauses in a contract that may benefit a particular party which in turn leads to the other party raising a claim (Karape & Joshi, 2018).



The Rwanda Public Procurement Authority (RPPA), which is a government body that deals with dispute resolutions, states under Clause 33.1 of its General Conditions of Contract that the parties are in the first instance expected to use their best efforts to settle amicably all disputes arising out of or in connection with this contract or the interpretation thereof (RPPA, 2015). This places an obligation on the parties to use amicable settlement but the procedure is left to the parties themselves. The same body in Clause 33.3 noted that any dispute between the parties to a Contract which cannot be settled amicably or through adjudication within 30 days may be submitted by either Party for settlement in accordance with the provisions specified in the standard condition of contract. In case the adjudication, it is a process of settling disputes which provides that the Adjudicator shall be appointed by the Kigali International Arbitration Centre (KIAC) and that the Adjudication shall be conducted in accordance with the KIAC rules (KIAC, 2018). The decision of the Adjudicator should be made in writing within a period of thirty (30) days from the receipt of notification of the dispute.

Since contractual disputes are inescapable in large projects, it was suggested to seek alternative dispute resolution (ADR) over litigation due to cost, time savings, flexibility and privacy (Alshahrsni, 2017). In view of this, the alternative dispute resolution methods have been embraced in the Rwandan construction industry. However, it is not clear how effective the dispute resolution methods are. Therefore, this study investigates the effectiveness of the process of disputes resolutions in the Rwandan construction industry.

## **1.2 Statement of the Problem**

Globally, construction works have the tendency to create strong differences in opinion between even the best-intentioned parties, which can quickly degenerate into acrimonious disputes and become difficult to resolve (Harmon, 2003). Like all other developing countries, Rwanda is rapidly increasing its capital spending effectively and its growing image as an attractive country has led to the growth in demand for Alternative Dispute Resolution services over the past years. Since its establishment in

2012, more than 89 cases have been registered, involving parties of 10 different nationalities and with a total in dispute of over USD 40 million in only 6 years (KIAC, 2018).

According to Rwanda Public Procurement Authority (2010), a significant number of constructions related disputes have been filed with the various judicial courts, especially by contractors in the past years. This is a major concern as it affects the overall performance of the construction industry.

Studies indicate that most cases of disputes were resolved by the court thereby involving averagely more than USD 450 thousand per case, time, indecisive outcomes; judges lack of creative outcome, imposition of solutions on parties (RDB, 2014). However, the alternative dispute resolution methods have been adjudged as the best way to resolve disputes because they can save a lot of time (by allowing resolution in weeks or months compared to the court which can take years), save lot of money (fees for lawyers and experts and work time lost), and preserve relationship by helping people cooperate instead of creating one winner and one loser (win-win situation) (Zhou, 2007).

The problems with the above studies is that, despite asserting the preference for alternative dispute resolution methods over litigation, the effectiveness of the various methods of alternative dispute resolution and the processes involved were not determined. Without determining the effectiveness of the alternative methods of dispute resolution and their processes, it will be difficult to know the ones to apply at every given point and applications will be based on a trial-and-error basis. Therefore, this study investigates the effectiveness of the methods of dispute resolution and their processes in the Rwandan Construction Industry.

### **1.3 Objectives of the Study**

#### **1.3.1 Main Objective**

The main objective of this study is to investigate the effectiveness of the processes of dispute resolution in Rwanda with a view to determining how best each of them can be applied in the Rwandan construction industry.

#### **1.3.2 Specific Objectives**

The specific objectives of the study are to:

- i. Assess the causes of contractual disputes in the construction industry in Rwanda.
- ii. Examine the level of contractual disputes in the construction industry.
- iii. Investigate the application of dispute resolution methods in the construction industry.
- iv. Determine the effective methods of settling disputes arising from the process of implementing a construction project.

#### **1.4 Research Questions**

- i. What are the causes of contractual disputes in the construction industry in Rwanda?
- ii. What is the level of contractual disputes in the construction industry?
- iii. How can dispute resolution methods in the construction industry be applied?
- iv. Which methods can be used to settle the contractual disputes in the construction industry Rwanda?

#### **1.5 Justification of the Study**

In 2010, the RPPA annual report showed that a significant number of constructions related disputes have been filed with the various judicial courts, especially by contractors in the past years. In the previous 10 years, over 140 construction projects-

related disputes were reported and half of them took less than 3 years to resolve. This is a major concern as it affects the overall performance of the construction industry. Though, since its establishment in 2012, Kigali International Arbitration Center has done a lot to reduce the rate of disputes on construction projects, the prevalence of construction disputes indicates that more needs to be done (KIAC, 2018). If disputes are resolved under a lower level, for example by participants only, or by third-party, the relations between contractors and clients could be maintained. Moreover, it is crucial to improve on pre-contract project documentation and also project management at post-contract project management, as the best way to tackle the disputes problem.

The determination of the causes of disputes in the construction industry will assist to know the exact areas to direct efforts of dispute resolutions to. Also, the knowledge of the level of dispute in the construction industry will help to ascertain the level of impact of the causes of disputes in construction projects in Rwanda.

In addition, the study will investigate the areas of application of the various dispute resolution methods in the construction industry with a view to determining the type of projects for which each method is suitable for. Lastly, the study will be determined the most effective alternative method of dispute resolution based on the causes and level of disputes in the construction industry.

Therefore, the study is of essence in order to assist with the amelioration of disputes in the construction industry. The amelioration will improve project performance in the construction industry thereby reducing cost overrun, time overrun, quality deviations, project abandonment, poor stakeholder's reputation, and environmental degradation.

### **1.6 Significance of the Study**

The findings of this study would therefore not only be of great benefit for the contractor but also to the client. Proper construction contract management will result to reduce the construction dispute and proper dispute resolution methods without spending

unnecessary costs, by identification of the major causes of contractual disputes in construction projects, describe effectiveness of the commonly used dispute resolution methods in construction projects and develop a more efficient process for the construction dispute resolution in Rwanda.

### **1.7 Scope of the Study**

In general, this study aimed at analyzing the contract dispute resolution process and development of an effective approach for Rwanda. The study is expected to cover the whole Rwanda, however for effective study, the study will be conducted in Kigali. Kigali is used for the study because it is the capital city of the country, involves many construction works that are useful for this study, and houses the offices of the establishments that will give useful information for the study. The respondents were Construction company's workers, Developers, professions such as Adjudicators and Dispute resolution managers, Quantity surveyors, Architects and engineers, Land surveyor. The research targeted ongoing and complete projects and the research work was limited to Rwanda country.

### **1.8 Definition of Terms**

- a) **Contract:** it is a legal document that states and explains a formal agreement between two different people or groups.
- b) **Construction disputes:** is disagreements between the parties on a contract. They are due to a perceived or real violation of a construction contract and the obligations and may also arise due to unsubstantiated or incomplete claims being made by the parties involved.
- c) **Effectiveness:** The degree to which objectives are achieved and the extent to which targeted problems are solved.
- d) **Project:** it is a group of tasks, performed in a definable time period, with the aim of meeting set objectives. It is usually a one-time program with a life cycle, and a specific start and end. It has a work scope that can be categorized into definite

tasks, a budget, and requires use of different resources. Many of these resources may be scarce and may have to be shared with others. It may require the establishment of special organization, or the crossing of traditional organizational boundaries.

### **1.9 Study Outline**

This study consists of five chapters. Chapter one covers background information, problem statement, objectives of the research, research questions, research justification, scope of the study, limitations and definition of key terms of the study. The chapter also includes the study outline. Chapter two includes literature review from secondary sources of data and conceptual framework. Chapter three covers research methodology discussing the research instruments and methods of data collection. Chapter four includes research findings, data presentation and data analysis. The last chapter covers conclusions and recommendations based on the results obtained and analyzed in the previous chapter. Areas of further study are also included in this chapter.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents a review of literature on dispute resolution in construction contract disputes. It comprises conflicts and disputes in construction industry, dispute resolution methods, and the literature gap.

#### **2.2 Conflicts and Disputes in Construction Industry**

The construction industry is a complex and competitive environment in which different participants have different views, skills and levels of knowledge of the construction process work together. In this complex environment, participants come from various professions, each with their own goals and drive to make the most of their own benefits. Conflicts are inevitable on any project due to the differences in perceptions among the projects' contractual parties. If conflicts are not well managed and resolved, they quickly turn into disputes. Disputes are one of the main factors which prevent the successful completion of the construction project (Gould, 2004).

Thus, it is essential to understand what may cause the dispute and take appropriate measures to help complete the construction project in the desired time, budget and quality. Construction claims are also found in almost every project which usually involve the seeking of consideration or change by one of the parties involved in the construction process.

Nowadays, the substantial increase in volume of claims and disputes are the result of the rising complexity of the projects, the price structure of the construction industry and the legal approach taken by a lot of owners and contractors. There are several researches that show the order of magnitude of the effects from construction claims on cost and time of the projects. It is common practice for designers, contractors and owners to

negotiate small and uncomplicated disputes, but larger and more complex ones frequently hinder the project through involvement with lengthy legal issues. (Chaitanya & Khekale, 2013).

### **2.3 Methods of Alternative Dispute Resolution**

As defined by Legal Information Institute (2017), Alternative Dispute Resolutions (ADR) is “A variety of methods that parties can use to Settle Disputes outside the Courtroom”, the processes are generally non-binding voluntary processes which are only enforceable by agreement of the parties (except arbitration) and the method of ADR that parties adopt is usually stipulated in the Contract that the parties enter into.

The possible ADR processes available to construction disputes are: Arbitration, Mediation, Expert determination, Negotiation, and Adjudication. These ADR techniques were defined by RICS in its 1st edition of Conflict avoidance and dispute resolution in construction, as follows

#### **2.3.1. Arbitration**

Arbitration is a process, subject to statutory controls, whereby formal disputes are determined by a private tribunal chosen by the parties. It is an alternative to litigation and has been used for resolving disputes for a considerable period of time (Gould & Elliott, 2012). This Arbitration process provides a legal framework for arbitration, including recognition of the process, the arbitrator, the procedures, and also the award and enforcement of that award. Arbitrators receive their powers from the provisions of the Arbitration Act, in the absence of any agreement between the parties.

The Arbitration process has five main objectives:

- a) To ensure that arbitration is fair, cost-effective and rapid
- b) To promote party autonomy. In other words, to respect the parties’ choices
- c) To ensure that the courts have supportive powers at appropriate times



- d) To ensure that the language used is user-friendly and readily accessible to the parties
- e) To follow the model law (which is used internationally) wherever possible.

### **2.3.2. Mediation**

Mediation is now used frequently in the construction industry to resolve disputes. It can be used during the project to resolve disputes, after completion, during the escalation of a dispute or at any time up to a hearing. The contract need not make provision for mediation as the parties can just agree to attempt mediation as a faster, cheaper alternative to the court, arbitration or adjudication (Gould & Elliott., 2012). Mediation is undertaken on the parties' own initiatives.

For the vast majority of mediations in construction disputes, the mediator is appointed by agreement of the parties, rather than by an appointing body. The cost savings attributed to successful mediations are a real incentive for parties to consider mediation.

### **2.3.3. Expert Determination**

Expert determination is a creature of contract. The parties agree by contract to refer a dispute to a third party who will then decide that particular issue. The third party might decide a technical or valuation issue, as is common, but, in theory, an expert can determine any dispute which the parties agree to refer. Traditionally, expert determination was used for valuing shares in private companies or certifying profits or losses of companies during sale and purchase. In the construction industry expert determination has been and is used for determining value, either of an entire account or sometimes in relation to parts of an account, such as variations (Gould & Elliott., 2012).

There are many instances when adjudication is available, and so expert determination has been somewhat eclipsed. Internationally expert determination is still encountered, often as part of a multi-stage dispute resolution procedure. It is also used in property-

related agreements such as development agreements. Finality is a fundamental feature of expert determination. The provisions in the contract for expert determination frequently state that the decision of the expert shall be final and binding on the parties. The courts have taken the view that the decision of an expert will therefore be enforced regardless of any errors.

#### **2.3.4. Negotiation**

Negotiation is more than just a dispute resolution procedure; it is a way of conferring with others in order to reach a compromise or an agreement. It can, of course, be used in a positive way in order to negotiate the building contracts and appointments in the first place. There need not be any dispute and perhaps very little conflict at all. In order to resolve any dispute, negotiation would involve some form of communication leading, hopefully, to a joint decision. It is the most widely used form of dispute resolution, but of course relies upon the parties finding common ground.

Much has been written on the subject of negotiating tactics and the process of negotiation. One important aspect of any negotiation is being properly and fully prepared. A detailed and thorough understanding of the issues is crucial if you or the party that you represent is going to put forward its best position and hopefully resolve matters in a satisfactory manner.

Preparation for any negotiation will therefore involve understanding the range of issues and both parties' positions. Any analysis should include the consideration of liability as distinct from time or value. In other words, it is important to separate whether there is any liability in the first place before considering how much time or money the item is worth. Simply coming to a conclusion that there is no liability should not stop the objective assessment of how much time or money might be due if there were a liability. The mistake is often made of coming to a conclusion that there is no liability and therefore failing entirely to assess objectively time or cost if the liability assumptions

were incorrect. Negotiations progress much further, and are more likely to resolve matters if all the issues are considered.

There are two main approaches to negotiation. The first is competitive and the second is principled (Gould & Elliott, 2012). Competitive negotiators will make an offer that is very low, usually much less than they would in fact accept. Their tactic is simple, in that they raise their offers gradually (while weaving in other issues) in order, hopefully, to settle the matter. The alternative approach is that of 'principled' or interest-based cooperative negotiations that focus on the interests not on the positions. The parties should consider the reasons for their demands and search for mutual interests which can be bargained over.

### **2.3.5. Adjudication**

The term adjudication can be misleading. In its general sense it refers to the process by which the judge decides the case before him/her or the manner in which a referee should decide issues before him or her. In other words, adjudication can be defined as a process where by a neutral third party gives a decision or solution, which is binding on the parties that are in dispute unless or until revised in arbitration or litigation. This narrow interpretation may also refer to the commercial use of an adjudicator to decide issues between parties in a contract. Most standard forms of contracts used today in the construction industry, use adjudicator in dispute resolution. There exist three main categories of adjudication.

#### **(a) Contractual Adjudication**

Until recently, adjudication in the construction industry has played certain roles. First, the adjudicator has to be a neutral individual who does not get involved in the day- to-day running of the contract. An adjudicator is neither an arbitrator, nor a state-appointed judge. Second, the adjudicator enjoys his or her powers by virtue of the agreement

between the parties. In other words, the parties have agreed by contract that the decision of the adjudicator shall decide the matter for them (Thomas, 2001).

**(b) Statutory Adjudication**

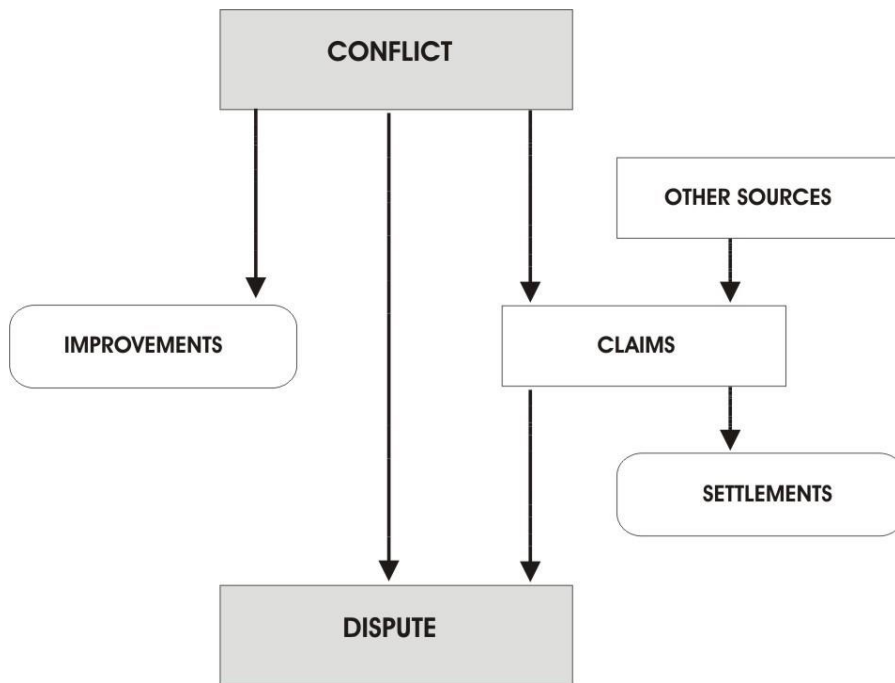
The introduction of statutory adjudication under section 108 of the Housing Grants Construction and Regeneration Act 1996 was one of the key recommendations in the Latham Report (1994). Latham recommended that a system of adjudication should be introduced within all of the standard forms of contract, unless some comparable arrangement already existed for mediation or conciliation. He further recommended that the system of adjudication should be “underpinned by legislation”, capable of considering a wide range of issues and that the decision of the adjudicator should be implemented immediately (Thomas, 2001).

**(c) Risk and Dispute Continuum Model**



**Figure 2.1. Risks, conflict, and claim and dispute continuum model (Khekale and Futane, 2015).**

Several authors have used the term conflict, claim and dispute interchangeably in construction-related literature. Acharya et al. (2006) point out the differences in conflict, claim and disputes. It can clearly be seen that conflict and conflict management is an essential ingredient in construction management. Thus, in order to reduce the negative impact of claims and disputes on construction projects, there is a need to identify causes of conflicts in construction projects.



**Figure 2.2. Conceptual Model (Acharya, et al., 2006)**

#### **2.4 Rwanda’s Context on Disputes Resolution**

In Rwanda, Rwanda Public Procurement Agency (RPPA), which is used by the Government of the Republic of Rwanda and other public organizations in Rwanda; as defined in the requirements of Law No 12/2007 of 27/03/2007 on Public Procurement as modified and completed by Law No 05/2013 of 13/02/2013 contains the Clause GCC 33 in RPPA on the subject of “Disputes Settlement” that deals with dispute resolutions and it has the following provisions;

Clause 33.1 in RPPA regarding “**Amicable Settlement**” The parties are in the first instance expected to use their best efforts to settle amicably all disputes arising out of or in connection with this contract or the interpretation thereof. This places an obligation on the parties to use amicable settlement but the procedure is left to the parties themselves

Clause 33.2 in RPPA concerning “**Adjudication**” The second stop for the parties is Adjudication. “In case parties fail to amicably settle a dispute in relation to this with technical matters like calculations, specifications or any other details related to the works shall be referred to the Adjudicator within 14 days from the date the parties fail to resolve the dispute amicably”. This clearly states that when amicable resolutions fail, the next step is Adjudication.

It is also clear in the SCC (Special Conditions of Contract) that the Adjudicator shall be appointed by the Kigali International Arbitration Centre (KIAC) and that the Adjudication shall be conducted in accordance with the KIAC rules. The decision of the Adjudicator should be made in writing within a period of thirty (30) days from the receipt of notification of the dispute.

Clause 33.3 in RPPA relating to “**Litigation or Arbitration**” This clause states as follows’ “Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably or through adjudication within (30) days after the receipt by one Party of the other Party’s request for such amicable settlement or thirty (30) days after the Adjudicator’s decision any be submitted by either Party for settlement in accordance with the provisions specified in the SCC (RPPA 2018).

#### **2.4.1 Legal System and Judicial Independence**

According to (Kosar., 2013). The Rwandan legal system is mainly based on the Belgian civil law system. However, since the renovation of the legal framework in 2002 with a constitution introduced in June 2003 and the country joining of the commonwealth in 2009. Rwanda’s commercial courts address commercial disputes and facilitate enforcement of property and contract rights.

In 2012, the GOR launched the Kigali International Arbitration Centre (KIAC), an alternative business settlement venue that aims to reduce the costs of contract settlement and enforcement for investors. The centre operates under its own rules, which are similar

to ICSID, but not identical. Rwandan courts retain jurisdiction for the KIAC (Statement, 2016).

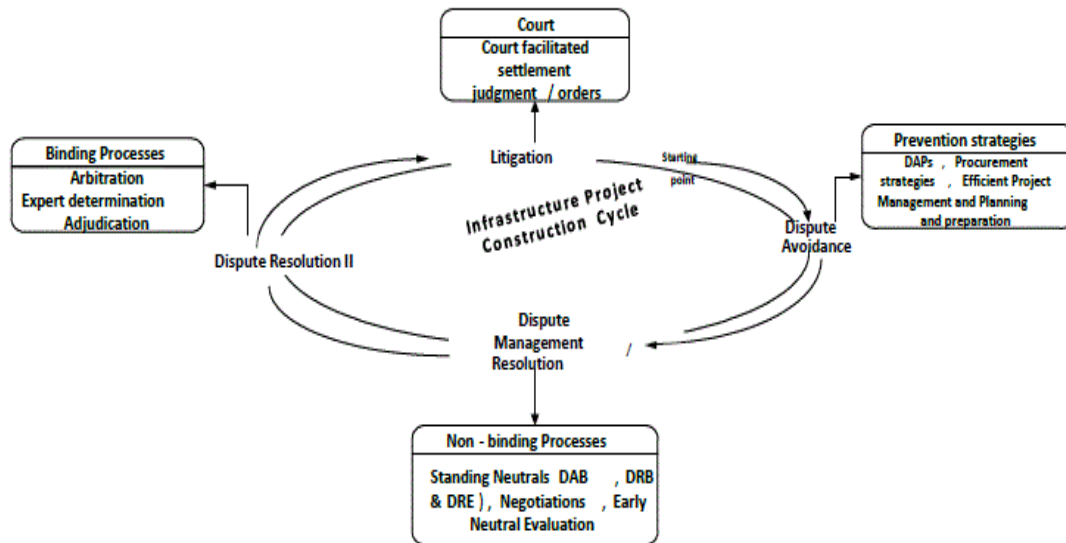
In 2013, Rwanda's Private Sector Federation showed that the total cost of court fee, sums up to 68% of the total value of the court awards. Local courts may accept and enforce clauses in contracts that abide foreign court laws though they may lack experience and capacity to adjudicate cases that don't follow Rwandan law. There have been a number of private investment disputes in Rwanda, though the Government of Rwanda hasn't yet received or responded to any World Trade Organization (WTO) dispute settlement (NISR, 2013).

Rwanda has signed and ratified a Multilateral Investment Guarantee Agency (MIGA) convention on October 27, 1989. MIGA issues guarantees against non-commercial risks to enterprises that invest in member countries.

Under the 2015 investment code, Article 9 on dispute settlement states that:

- a. Any dispute arising between a foreign investor and one or more public organs in connection with a registered investment enterprise shall be amicably settled;
- b. When an amicable settlement cannot be reached, parties shall refer the dispute to an arbitration agency as agreed upon in a written agreement between both parties;
- c. Where no arbitration procedure is provided under a written agreement, both parties shall refer the matter to the competent court.

## 2.4.2 Framework For Construction Dispute Resolution



**Figure 2.3. Framework for Dispute Resolution (Mackie K., et al., 1995)**

## 2.5 Claims in Construction Industry

Building contract claims are a unique combination of law and practice – the proper preparation and evaluation of building contract claims requires knowledge of building practice as much as of law (Chapell et al. 2005). In my experience, many claims are ill-founded, often because the basic principles are misunderstood. Loss of money or lack of profit is not alone the basis of a claim, although it is usually the trigger. The contractor's entitlement is founded in the terms of the contract and in the general law to which it relates and if a particular contract term confers on a contractor the right to reimbursement of direct loss and/or expense, he is entitled to invoke the machinery laid down in the contract in order to obtain amounts properly due.

### 2.5.1 Contractual Problems in Construction Industry

Constructional project contracts are the agreements that are made by construction project owners (contract issuing parties) and construction firms (contractors) that abide them in



order to complete specific construction installation projects and to define the rights and obligations of both parties (Hendrickson & Au, 199). The parties in the contract are not competitors but associates that have different functions in the performance to achieve a specific task in a project.

A vast majority of contractual problems arise from misinterpretation of the construction contract are:

- a) Changes in Contract work
- b) Differing in unusual site conditions actually encountered
- c) Suspension of Work
- d) Variation in quantities
- e) Damage due to natural disasters and force-majeure
- f) Re-inspection and acceptance
- g) Termination for the convenience of the client
- h) Possession prior to completion
- i) Escalation of price due to inflation
- j) Acceleration of work progress
- k) Ripple effect
- l) Currency fluctuation effect
- m) Ambiguity in specifications and drawings

### **2.5.2 Types of Construction Claims**

Black, Ann (2001) said that there are a few ways to classify construction claims. They may be classified by the related parties, rights claimed, legal basis, and characteristics of claims. By determining their relevant legal bases, construction claims can be divided into three categories:

- i. **Contractual Claim:** Contractual claims are the claims that fall within the specific clauses of the contract. In a standard construction contract, there are a lot of

provisions that entitle both parties (contractors and the employers) to claim and offer for the appropriate compensation. Such as ground conditions can be valuation, variations, late issue of information, and delay in inspecting finished work.

- ii. Extra-contractual Claim: This type of claims has no specific grounds within contract but results from breach of contract that may be expressed or implied, i.e. the extra work incurred as a result of defective material supplied by the client.
- iii. Ex-Gratia Claim: Ex-gratia claims are the claims that there is no ground existing in the contract or the law, but the contractor believes that he has the rights on the moral grounds, e.g. additional costs incurred as a result of rapidly increased prices.

#### **2.5.2.1 Extension of Time**

Davison and Mullen (2009), briefly described the extension of time claim as follows:

- a. This is by far the most common claim that contractors submit.
- b. In the event that the completion date is delayed and the Contractor is not granted extension of time, the contracts normally provide for liquidated damages under the penalty clause. Most contractors are keen to avoid being charged damages and will go out of their way to secure extension of time.
- c. On most contracts, there are likely to be multiple causes of delay occurring at different points and not a single reason for delay. The delays could also affect works either on the critical path or not on the critical path.
- d. In submitting a claim for extension of time, the contractor will stand a better chance of having a successful claim if they do the following:
  - i. Provide a proper description of the cause of the delay and the contractual provision relied upon for the extension.

- ii. The date when the delay commenced and the period of delay.
  - iii. The date of notice of delay, specifying the reference of the relevant document.
  - iv. Demonstrate efforts made to mitigate the effect of the delay.
  - v. A summary of the records of particulars relied upon.
  - vi. A narrative of the events and effects on progress.
  - vii. A diagrammatic illustration showing the status of the program, progress and current completion date prior to the commencement of the delay.
  - viii. A diagrammatic illustration showing the effects of the delays on progress and the completion date.
  - ix. A statement requesting an extension of time for the delay to completion for the period shown on the submitted illustrations.
- e.** After evaluation and award for Extension of Time, it is important for the Consultants to state whether the extension is awarded with costs or not.
- f.** Awarding Extension of time “without costs” has been overturned by various tribunals that have been called upon to resolve disputes except in cases whereby the contractor was allowed extension of time “on ex-gratia” basis to avoid charging them penalties.
- g.** Similarly, if no extension of time is provided (or if part of the claim for extension is not awarded), the Consultants must pronounce themselves on the period of delay and the quantum of liquidated damages that the contractor should be charged.

### **2.5.2.2 Extended Preliminaries**

Davison and Mullen (2009) continued on the extended preliminaries claim saying that:

- a. This is normally a direct result of Extension of Time with costs.
- b. It is sometimes referred to as “Site Overheads”
- c. It is good practice for the Project Quantity Surveyor to ensure that before award of contract; the contractor submits a break-down of their preliminaries clearly showing the Fixed, Initial, Time related and Final removal components of the Preliminaries. This is then included in the contract documents and becomes the basis for paying preliminaries.
- d. In the interim valuations. It can also be a basis for evaluation of extended preliminaries in the event that there is an extension of time.
- e. It should be noted that the contract provision for the Preliminaries (whether Fixed, Initial, time related or final) might not be exactly the same as the actual cost to the contractor and caution should be exercised when applying this method. It is advisable to try and establish the actual costs and compare them with what is obtained from using the contract provision for preliminaries.
- f. Another area that causes problems in looking at claims for Extended Preliminaries is Plant and Equipment. On most projects, most of the plant and equipment is only brought to site when required. However, if a delay occurs at a time when a substantial amount of plant is on site (e.g. during earthworks), the actual cost at that particular time could be much higher than the contract provision.
- g. In making a submission for extended preliminaries, the contractor must justify each and every figure that is being claimed by doing the following;

- i. Submit written contractual justification for each item in the claim.
- ii. Provide calculations indicating how each figure have been arrived at and whether it is based on the contract provision or actual costs incurred and reasons thereof.

### **2.5.2.3 Interest on Delayed Payments**

Based on the Chapell et al., (2005) theory, the interest on delayed payments to referred in the following way:

- a. The contract provisions normally provide for payment of Interest on delayed payments.
- b. The clause in the contract must be clear on how the interest will be calculated this is done by clearly stating the following:
  - i. The period within which payments must be made from the date of presentation of the certificate.
  - ii. The date on which entitlement to interest commences. Most contracts state this to be the date immediately after the lapse of the period for settling certificates but some contracts (especially the public sector) allow for a further “waiting period” before entitlement to interest commences.
  - iii. The rate to be applied in calculating interest on delayed payments. Most contracts state “the commercial banks’ lending rate” as the applicable rate.
- c. A claim for interest on delayed payments should be detailed enough and should show the interest being claimed on each payment certificate.

#### **2.5.2.4 Interest on Delayed Certification**

By describing the claim based on interest on delayed certification, Chapell et al.(2005) said that:

- a. Most contracts state a period within which interim applications should be certified.
- b. However, none states that the Contractor is entitled to claim interest on delayed certification.
- c. This has not stopped some over-zealous contractors submitting such claims.
- d. This claim has no contractual basis and should not be entertained.
- e. However, the Consultants should be diligent in certifying applications within the stipulated period to avoid conflict with the contractor.

It should also be mentioned that some unethical Consultants deliberately delay issuing payment certificates at the behest of the Employer. This kind of interference can lead to immediate termination of the contract with its resultant consequences and loss to both parties.

#### **2.5.2.5 Head Office Over-heads**

- a. This covers costs associated with head office personnel and equipment required for the Contractor's business. These are fixed costs that the Contractor incurs whether they get business or not. Each project that the Contractor gets is therefore expected to contribute to these costs.
- b. Contractors will normally establish these costs for a year and work this out as a percentage of turn-over. The percentage is then used as the mark-up on all tenders submitted in that year. If a project is delayed beyond the scheduled completion

period, a contractor is then unable to achieve the anticipated level of turnover and hence this leads to a shortfall of income for financing the head office over-heads.

- c.** A claim for Head Office over-heads must therefore prove the following;
  - i. The Contractor's annual turn-over
  - ii. The expected return on turnover
  - iii. The percentage of the return required to cover head office overheads.
  - iv. The established manner of submitting claims for head office overheads is by use of various formulae like; Hudson's Formula, Eichleay's Formula and Emden's Formula.
  
- d.** For a claim for head office overheads to be successful, the Contractor must prove the following;
  - i. The loss in question must be proved to have occurred
  - ii. The delay in question must be shown to have caused the contractor to decline to take other work which was available and which would have contributed to its overhead recovery. Alternatively, it must have caused a reduction in the overhead recovery in the relevant financial year or years, which would have been earned but for the delay.
  - iii. The delay must not have had associated with it a commensurate increase in turnover and recovery towards overheads (e.g.: a variation).
  - iv. The overheads must not have been ones, which would have been incurred in any event without the Contractor achieving turnover to pay for them. In other words they must have been specific to the particular project.

- v. There must have been no change in the market affecting the possibility of earning profit elsewhere and an alternative market must have been available. Furthermore there must have been no means for the contractor to deploy its resources elsewhere despite the delay. In other words, there must have been a constraint in recovery of the overheads elsewhere and consequently the overheads could only be recoverable from the project.
- e. Claims for head office overheads are the most difficult to resolve and have in many cases lead to Alternative Dispute Resolution and/or litigation.

#### **2.5.2.6 Cost of Finance**

- a. Claims on cost of finance could cover interest on outstanding monies like the retention.
- b. The contention here would be that due to prolongation, the contractor has been prevented from accessing the retention at the time that they should have been able to if was not for the prolongation.
- c. This claim would only come under “direct loss and expense” only if the contractor had submitted the correct notices.

#### **2.5.2.7 Acceleration Costs**

- a. In most cases the parties will agree to institute acceleration measures and this could include the following:
  - b. Over-time or double shift work
  - c. Additional plant and equipment
  - d. Additional costs for lighting the site at night and transport for workers



- e. It is normally prudent to agree upon these costs prior to commencing the acceleration.
- f. There are cases where-by a contractor will put forward a claim alleging that though they were delayed and were therefore entitled to an extension of time, they unilaterally decided to institute acceleration measures to mitigate the delay. Such a claim is difficult to succeed if prior notice was not given.

#### **2.5.2.8 Loss of Profits**

- a. A claim for loss of profit is common when the scope of work is reduced from the signed contract.
- b. The logic behind this claim is that a contractor expects to earn a certain lump sum amount (as percentage of the contract) and that by reducing the contract sum, the profit earned reduces.
- c. There are also instances where contractors have submitted claims for loss of profit due to prolongation.
- d. The conditions that should be met to sustain a claim for recovery of head office overheads also apply to claims for loss of profit.

#### **2.5.2.9 Fluctuations**

- a. Where the contract provides for fluctuations, claims for fluctuation are straightforward as long as the basis for evaluating fluctuation is clearly defined.
- b. In instances where a contract is a fixed price contract but the claim for fluctuation comes about due to “abnormal increases in cost of inputs or exchange rates”, the parties should agree upon the principles for evaluation prior to submission of the claim and its evaluation.

### **2.5.3 Claims Management**

1. **Claim Identification:** The contractor studies the instructions in the form of drawings as well as oral or written instructions provided by the owner/engineer. If it contains extra works, the same is read against the provisions of the contract.
2. **Claim Notification:** After it is established by the contractor that it is an extra work, the contractor is required to inform the engineer within the time frame stipulated and clarify his intention to claim extra rates for the same. This is very important because failure on contractor's part regarding this shall entail its rejection by the engineer.
3. **Claim Substantiation:** When the contractor raises a claim, he has to include his entitlement under the contract. Giving reference to the relevant clauses. The claim is supported by necessary backup calculations.
4. **Analysis of time and cost impacts of the change:** The objective of this sub-process is to determine the impact of the change occurred.
5. **Pricing of the change:** The purpose of this sub-process is to give the other party in the contract a well detailed description of the extra costs incurred or to be incurred due to the change in the contract.
6. **Negotiation of the claim:** This sub-process concerns the process of presenting the claim to the client and mutually finding a solution to such a claim.
7. **Decision of Engineer/Owner:** The Owner/Engineer is supposed to convey his decision on the claim to the contractor within a time frame specified in the contract.
8. **Further Action by Contractor:** The contractor has to refer the claim for adjudication if provided, within a specific time frame after receiving the decision from the engineer, if the same is being disallowed.

## **2.6 Disputes in Construction Industry**

Given the uncertainties involved in a construction project and the magnitude of funds involved, it is only natural to have disagreement between parties, but these need to be resolved. While most of such day-to-day differences are resolved in an amicable manner, without having to resort to a more formal mechanism, the parties at times agree to disagree and seek re-dressage through independent intervention. Although, in principle, the discussion falls under the purview of construction law, effort has been made to discuss some of the aspects related to disputes and dispute resolution with as little legalese as possible.

### **2.6.1 The Spectrum of Dispute Resolution Techniques**

The ‘conventional’ model of dispute resolution describes an adjudicative process, most frequently operated by state courts.

Litigation requires the parties to submit their dispute to a judicial ‘umpire’, whose role is to impose a legally binding decision; arbitration does the same.

At the other end of the same spectrum sits two-way problem-solving between the parties: an informal, voluntary, non-binding, approach, the successful outcome of which is an agreement to ‘settle’. In its most basic form, direct negotiation provides a simple, party-based problem-solving technique.

Mediation and conciliation are also private, informal processes; but here the disputants are assisted, in their efforts towards settlement, by one or more neutral third parties. The mediator or conciliator re-opens or facilitates communications between the parties, with a view to resolving the dispute; but the involvement of this independent third party does not change the position that settlement lies ultimately with the parties themselves.

The process can be facilitative, where the third party merely tries to aid the settlement process; or evaluative, where the third party comments on the subject-matter or makes

recommendations as to the outcome (either as an integral part of his/her role, or if called on to do so by the parties).

The terminology is not the same everywhere: in some parts of the world, mediation refers to a more interventionist evaluative approach. In the UK, the facilitative style of third-party intervention is most frequently referred to as mediation; the term conciliation is reserved for the evaluative process.

**Table 2.1. Facilitative and evaluative processes (Fenn et al., 1997)**

Mediation or Conciliation	
Facilitative	Evaluative
The mediator/conciliator aids the negotiation process, but does not make recommendations	The mediator/conciliator makes a recommendation as to the outcome

In UK labour disputes, the statutory Advisory Conciliation and Arbitration Service (ACAS), an independent public body that receives funding from the government, is well known as adopting the evaluative style of conciliation. More recently, the ICE has begun to offer the same approach in connection with civil engineering disputes. On the other hand, CEDR promotes a style closer to the facilitative model, referring to this as mediation.

In practice, a mediation that starts off in a purely facilitative way may become evaluative in order to try and reach a settlement. This may occur intentionally, at the request of the parties or with forethought on the part of the mediator, or unintentionally by the words or actions of the mediator. The boundary is clear in theory, but not necessarily in practice.

Some suggest two sub-categories: settlement mediation and transformative mediation. Settlement mediation is where the parties are encouraged to compromise in order to reach a settlement of the dispute between them, using a relatively persuasive and interventionist approach.

Typically this will involve moving the parties towards a point somewhere between their original positions.

**Table 2.2. Dispute-resolution processes (Fenn et al., 1997)**

Control of the outcome rests with parties	Decisions are imposed
Negotiation	Litigation
Mediation	Arbitration
Conciliation	Adjudication
	Expert determination

We can subdivide the range of techniques for the resolution of disputes into three main types:

- a. Negotiation: the problem-solving efforts of the parties themselves
- b. Third-party intervention not leading to a binding decision being imposed on the parties
- c. An adjudicative process, the ultimate outcome of which is an imposed binding decision.

### **2.6.2 Causes of Disputes in the Construction Industry**

According to (Tarar, 2011) most disputes in the construction industry are mainly caused by:

- a) **Design deficiency:** Around 38% of disputes in the construction industry are related to design of works (Bramble, 1995). This will be either caused by lack of details, specifications on the drawings or underground problems, defective plans. Sometimes the contractor may raise a claim due to poor risk analysis of the works to be executed during the design and documentation period.

- b) **Contract conditions:** Man made errors are very common in design documents (architectural drawings and specifications necessary to complete the project), where by wrong dimensions or details may be written down. This may be caused by negligence of the designer or just simple errors in units. This may create a claim if the contractor follows the errors in the designs and executes them, only to be given contradicting statements.
  
- c) **Consumer reaction:** Under the public ownership, sometimes after completion of the construction project, the user or the owner of the building is not satisfied with it. It often occurs because the users of the building do not know what were the design requirements that designer should have met. For example, the building was designed to support a certain amount of kilowatts of electricity used, but the users need more and they don't realize that designer have met the requirements. This can cause a dispute between the client and the user of the building and the designer or the contractor.
  
- d) **Time:** Time is an important factor in the construction industry. Delay in time will cause either the client or the contractor to incur some extra cost. Poor project management due to lack of proper planning and scheduling on the part of the contractor or client may cause claims and disputes as there is an added factor of cost as time elapses.
  
- e) **The construction process:** In any construction project there is always room for uncertainty. As works progress so do risks, variations, unforeseen circumstances that may come into play. It is with that reason that if no proper cost analysis is done prior tendering, claims and disputes are bound to happen.
  - i. **Incorrect Ground Data:** Such data includes information about ground conditions, depth of groundwater table, rainfall and temperature data, availability of power and water, etc. The estimates of a contractor are based on the ground data provided with the tender documents, though depending upon the size of the

project and the means of a contractor, the letter also at times carries out an independent assessment of the data provided.

- ii. **Use of Faulty and Ambiguous Provisions or Language in Contracts:** The language of the contract should be clear and such that it is not open to different interpretations. Use of ambiguous language or provisions could open a floodgate of avoidable litigation.
- iii. **Deviations:** The contract should be so designed that there are as few extra items or deviations as possible.
- iv. **Unreasonable Attitudes:** It should be born in mind that in order to complete the work professionally, it is important that the parties involved resort to unilateral action to preserve an environment of mutual trust.
- v. **Contractor Being of Poor Means:** It is important that the contractor identified to do a job possesses the required human, financial and technical resources. In the absence of any of these, it is very likely that the contractor will look for an escape route for leaving the project, and may try to force a suspension or determination of the contract, or take the matter into arbitration/litigation to cut his losses.
- vi. **Unfair Distribution of Risk:** This could be a major reason for not only avoidable litigation but also increase in the cost of the project.

### **2.6.3 Most contractual claims will therefore revolve around the following:**

- i. Time Over-runs
- ii. Quality of workmanship and materials
- iii. Valuation, certification and payment
- iv. Contract Documentation

- v. Construction information
- vi. Site supervision by the Contractor and Consultants
- vii. Contractual and non-contractual fluctuations
- viii. Changes in legislation
- ix. Force Majeure

#### **2.6.3.1 Time Over-runs**

- i. This occurs when a contractor is unable to complete the project within the agreed time frame.
- ii. It commonly happens that the Contractor will attempt to avoid incurring the penalty for non-completion by attributing the delay to failings by the Consultants and Client.
- iii. The typical reasons that the contractors put forward include.
  - a. Failure by the Client to hand-over the site on time as stated in the agreement.
  - b. Late issue of construction information by the Consultants
  - c. Untimely issue of variations and/or instructions
  - d. Disruption caused by numerous variations
  - e. Disruption caused by Artisans employed by the Client
  - f. Unfair evaluation and award of extension of time by the consultants
- iv. A claim based on time over-runs (extension of time) inevitably leads to a financial claim either in the form of Extended Preliminaries (on the lower end) or a full-fledged contractual claim (on the extreme end).



### **2.6.3.2 Quality of workmanship and materials**

- a. The contract places an obligation on the Contractor to undertake and complete construction of the works to a clearly defined standard of quality for each and every single component of the works. This standard is specified in the drawings, specifications and bills of quantities (or schedule of rates).
- b. The Contractor is therefore expected to be diligent and to display good workmanship at all times.
- c. The Consultancy team on the other hand is expected to have produced clear documents that are not ambiguous and should follow this up with regular and diligent supervision and approval of works as they proceed.
- d. However, there are occasions when the contractor fails to deliver the work to the expected standards. Contractors will typically give the following reasons in their defense.
  - i. Lack of clarity in the contract documentation
  - ii. Incompetent (or inadequate) supervision on site by the Consultants.
  - iii. Stages of work were approved by the Consultants and therefore end product should be acceptable but probably it is not what the Employer expected due to failure by the consultants to understand the expectations of the Employer.
  - iv. The design details are not buildable.
- e. When the quality of workmanship and materials are not to the acceptable standard, the contractor is not paid for such works until the works have been remedied to the satisfaction of the Consultants.

- f. In cases where the Contractor is not in agreement with the assessment of the Consultants with regard to quality, this can become a source of major disagreement and will often lead to dispute resolution as provided for in the contract.

### **2.6.3.3 Valuation, certification and payment**

- a. Any contractor expects (and rightly so) to be paid for works properly executed in accordance with the terms of the contract. Failure to pay the contractor in accordance with the terms of the contract will lead to disruption of their financial planning and eventually leads to either poor performance or complete non-performance.
- b. Problems in payment will be seen from one or all of the following:
  - i. Interim certificates which do not reflect the true value of work properly executed.
  - ii. Interim certificates not being issued at regular intervals as per the terms of the contract.
  - iii. The client fails to settle the certificates within the period specified by the terms of the contract.
- c. Most contracts provide for payment of interest on Delayed payments but this does not put the contractor in the same position he would have been and does not therefore mitigate the delays that often result.
- d. Where-as failure to pay on time lies squarely with the Employer, conflict due to valuation and certification is caused by the Consultancy team and the Quantity Surveyor will hardly avoid being blamed.

#### **2.6.3.4 Contract Documentation**

- a. Contract documentation includes the Contract agreement, drawings, specifications, Bills of Quantities (or schedule of rates) and other documents like soil investigation reports.
  
- b. The contract documentation should fully explain the terms of offer and acceptance between the Employer and the Contractor. The documents must adequately describe the scope, quantity, quality and positions of the work and define the rights and obligations of the parties.
  - i. The common errors (sources of conflict) that occur in construction contracts include,
  - ii. Discrepancies between various documents like, drawings and specifications; or between standard conditions of contract and preliminaries sections in the Bills of Quantities.
  - iii. Contract documents which fail to disclose the complex nature of the project and obligations/restrictions placed on the contractor.
  - iv. Inappropriate insertion or alteration of clauses in the standard forms of contract without due consideration of the effects on the other contract clauses
  - v. Inadequate drawn or written information that fails to clearly convey what is required.
  - vi. Failure to observe the standard method of measurement when preparing the Bills of Quantities.
  - vii. Inaccurate Bills of Quantities in both description and quantities.
  - viii. Large items of work covered by Prime Cost (PC) and Provisional Sums in the Bills of Quantities
  
- d. The Consultants are largely to blame whenever a dispute arises due to inadequate contract documentation.

### **2.6.3.5 Construction information**

- a. This is also referred to as “Production Information” and is the information that the Contractor relies upon to execute the work.
- b. It has now become a common trend for projects to commence on site based on “Scheme Design” information. This information is inadequate for the execution of the works and this is manifested by very many “variations/instructions” being issued to close the information gaps.
- c. The common problems experienced as a result of this are:
  - i. Instructions or construction information is not clear.
  - ii. Instructions are issued without indicating their purpose.
  - iii. Revised drawings are issued without any explanation on the nature and extent of variations
  - iv. Information is issued late thus making it difficult for the Contractor to plan for the tasks including timely procurement of the necessary inputs
- d. The above-mentioned does not promote timely execution of works and therefore leads to claims since they cause, difficult working conditions, complications in procurement and disruption in financial arrangements.

### **2.6.3.6 Site supervision by the Contractor and Consultants**

- a. Close supervision of works during construction ensures that works are executed to the required standards while keeping within the agreed time-lines since consultation and decision making is efficient and quick.
- b. In the event that site supervision is inadequate, the contractor usually comes up with the following accusations against the consultants:

- i. Clerks of works and Architect failed to identify defective works during construction.
- ii. Clerk of Works and/or Architect are unreasonable and uncooperative in the supervision of the works.
- iii. The Architect and Clerk of works expect an unspecified standard of quality
- iv. Health and Safety precautions are not specified in the contract documentation.

#### **2.6.3.7 Contractual and Non-contractual fluctuations**

- a. Some contracts provide for fluctuations in the cost of inputs. The most reasonable basis for working out fluctuations is to rely on an established and clear cost index.
- b. The following are some of the tools being used in the region
  - i. In Uganda, the only reliable cost index is the Uganda Bureau of Statistics (UBOS) index.
  - ii. In Kenya, the Joint Building Council Price List is a respected and well established tool. The list is very comprehensive and it is produced every month.
- c. There are also instances where contractors have come forward with claims for fluctuations due to either an abnormal rate of inflation for a certain period or an abnormal rate of exchange. Such claims are not covered by the contracts and have been rather difficult to resolve. In most cases, the parties have negotiated some middle ground with the guidance of the Consultants.
- d. Quantity Surveyors must be equipped with proper skills to handle the calculation of fluctuations and also understand the terms of the contract regarding fluctuations if

they are to administer such contracts properly and avoid disputes that could lead to contractual claims.

#### **2.6.3.8 Changes in Legislation**

There have been incidences where-by changes in legislation (eg the Finance Act) can lead to contractual claims.

#### **Force Majeure**

- a. All forms of contract recognize that due to the complexities in the environment in which construction projects are executed, “factors beyond the control of either party” can lead to contractual claims or even termination of the contract.
- b. Whenever there is an incident of “force majeure”, the contractor is entitled to claim recovery of some of the costs they might have incurred. Suffice to note that termination of the contract would also attract a contractual claim by the contractor to enable them recover the resultant costs.

#### **2.6.4 Mechanisms of Dispute Resolution**

Apart from the normal legal process, emphasis here is on the alternative dispute resolution mechanisms generally available in construction contracts.

##### **2.6.4.1 Prevention**

1. Allocating fair contract risk: It is common local practice for architects/engineers to prepare construction contract documents simply by adding to or deleting from a set of previously employed contract documents, and while this cut-and-paste method may save time in preparing the construction contract, it often leads to problems, since documents are not read and prepared as a whole for the specific project. Such practices increase the unforeseen risks for the contractor. It comes as no surprise

that parties to a contract often include contract language designed to shift risk to the other party so that the bases for claims and disputes are eliminated.

2. **Drafting Dispute Resolution Clauses:** In addition to identifying responsibilities and allocating risks, a contract should contain language for addressing disputes and claims at the relevant stage in a project. This includes clauses containing explicit provisions and instructions for parties to resolve disputes as they arise, during the course of the project.
3. **Team Building:** Team building is another dispute-resolution technique that can be instituted at the beginning of a construction project to help allow for better cooperation and coordination among the parties.

#### **2.6.4.2 Negotiation**

- a) **Negotiation:** is a process of working out an agreement by direct communication.
- b) **Standing Neutral**
  - i. **Dispute Review Board:** It is essentially a process where an independent board of three people evaluates disputes as they arise during the project and make settlement recommendations to the parties.
  - ii. **Dispute Resolution Adviser:** The basic concept of a Dispute Resolution Adviser involves the use of a neutral third person who advises the parties to a disagreement or dispute and suggests possible settlement options.
- c) **Non-Binding Resolution**
- d) **Mediation and Conciliation:** are essentially informal processes in which the parties are assisted by one or more neutral third parties in their efforts towards settlement. Mediation is formal of the non-binding forms of Alternate Dispute Resolution. The

basic concept of mediation is that a third party acts as a mediator, or go between, to moderate negotiations and facilitate agreement. Negotiation between the parties, whether direct or indirect, is the essence of this process. Although sometimes confused with arbitration, there is a distinct difference. Primarily, arbitration involves a decision by an intervening third party or "neutral"; mediation does not. As noted in *Disputes and Negotiations; a Cross-Cultural Perspective*, "Mediation and arbitration have conceptually nothing in common.

The one (mediation) involves helping people to decide for themselves, the other involves helping people by deciding for them." As noted previously, the court system, and to some degree arbitration, tend to entrench parties into opposing positions with no view toward resolution other than a court battle. The ensuing legal questions tend to hamper the resolution process by reducing flexibility and further entrenching the opposing positions.

Mediation attempts to resolve the dispute by emphasizing areas of agreement, promoting positive interaction, and by moving both parties toward a common ground. Parties considering mediation should consider that mediation is private, voluntary, informal and non-binding.

The process is far less adversarial than litigation or arbitration; typically permitting the business relationship to be preserved. Also, since other options are still available if mediation should fail, entering into a mediation process is essentially without risk. Due to the nature of this process (negotiation), mediation frequently results in a compromise between the parties' "bottom lines." The emphasis is on making a business decision and not resolving legal questions. The presentations and negotiations, therefore, are conducted by the businessmen - and not by the lawyers. This preserves the business relationship between the parties and allows the businessmen the opportunity to settle their own disputes.



A great advantage also lies in the fact that unlike arbitration or litigation, the parties retain complete control. Since the process is conducted through mutual agreement, the parties may have the mediator removed, or if satisfactory results do not materialize, either party may end the mediation at any time.

e) Adjudication: process where a neutral third party gives a decision, which is binding on the parties in dispute unless or until revised in arbitration or litigation.

f) Binding Resolution

g) Arbitration: most commonly used mechanism for settlement of technical disputes in a construction project. It is a quasi-judicial process to the extent that legal protocol is largely observed, and it is important that the arbitrator, who basically acts as a judge, understands legal procedures.

Arbitration can be voluntary or involuntary, the distinction being whether the parties agreed on arbitration prior to the dispute arising (in the contract) or after the dispute (through mutual agreement). In either case, arbitration is an adversarial procedure through which disputants present their cases to an arbitrator whose decision is binding and court-enforced.

Each form of contract contains a specific agreement between the parties to the contract, to arbitrate all disputes or claims arising from performance of the contract. If this clause is used then the parties have no choice but to arbitrate, unless they mutually agree on a different method of resolving the dispute. If an Arbitration clause is not present in the contract, the parties may still submit to arbitration after the dispute has occurred. The parties to the dispute simply record their agreement to arbitrate in writing and refer the dispute to an arbitrator. However, in the absence of such a clause, one party cannot compel another to arbitrate a dispute.

- h) Mini-Trial:** The concept of the mini-trial is that by presenting the facts of both sides of the case to top executives from both sides (principals) and Educating them on the strengths and weaknesses of the case, they will ultimately resolve the matter.

This method provides them, probably for the first time, with the necessary information to make a complete assessment of the risks and costs of going to trial. In the mini-trial lawyers make the abbreviated presentations which are usually also heard by a neutral advisor, usually a retired judge or an authority on the technical issues in the case.

Thus, a mini-trial is not a trial at all but a structured nonbinding settlement procedure which effectively incorporates many of the adversarial aspects of arbitration and the negotiation aspects of mediation. The main difference, however, is that the mini-trial focuses on allowing executive level management to resolve the dispute. This concept strives to reduce the dispute to a business decision rather than a complex legal question.

The characteristics of a typical mini-trial are:

- i. Normally there has been a procedure filed in court. However, the court proceeding is stayed, pending the outcome of the mini-trial.
- ii. The procedure is voluntary. Either party may withdraw at any time without prejudicing its litigation position.
- iii. Principals of each side with full settlement authority, attend the proceedings. (The parties not the lawyers must be actively involved in the negotiation phase.)
- iv. Parties designate a, neutral advisor, usually a person of eminence or one highly knowledgeable in the subject matter of the dispute.
- v. Attorneys are involved. They prepare the presentations and present the material most favorable to their client.

- vi. Discovery is allowed prior to mini-trial, but usually abbreviated. Limited discovery must be allowed to develop relevant facts. However, extensive discovery should be avoided for the sake of efficiency.
  - vii. Each side puts on its best case for a period of not more than one day. No rules of evidence are observed. No objections to evidence are permitted. No cross-examination is allowed, although the neutral advisor may ask questions.
  - viii. At the end of the trial the parties negotiate. If they are unable to reach settlement, the neutral gives his opinion of the eventual outcome, and the parties are sent back to bargaining.
  - ix. Confidentiality is maintained. If the case cannot be settled, the neutral advisor's recommendation is not disclosed in subsequent litigation or arbitration. One obvious exception is that otherwise discoverable evidence will not be rendered inadmissible merely because it was also presented at the mini-trial.
  - x. Sanctions may be provided against the losing party if the ultimate result of arbitration or litigation is close to the neutral advisor's recommendations.
- i) Provision of Neutral Arbitrator: the most careful planning cannot always prevent disputes and this step is the last chance to resolve a dispute before resorting to a binding settlement.
  - j) Litigation: Much distinction can be made between the process of litigation and arbitration.

## **2.6.5 Mitigation of Claims**

### **2.6.5.1 At the Design and Documentation Stage**

- a. Ensure that the Consultants chosen are competent, diligent and ethical.

- b. Consultants should collect the Client's brief and ensure that all the Client requirements have been understood. The Client should be given ample opportunity to understand and approve the design and specifications.
- c. Proper site investigations should be done. This should include opening up boundaries, topographic survey, geo-technical investigations, Environmental Impact Assessment etc. This ensures that works are not stopped during construction due to failure to secure any of the required approvals
- d. Consult the local authorities and secure planning permission at concept design stage. This should be followed by proper approvals at the scheme design stage.
- e. The Design team should make sure that proper documents for each step (concept, preliminary, scheme, production) are prepared and approved by the Employer.
- f. The Consultants should prepare a risk register and risk management plan. This should be monitored and corrective measures taken whenever it becomes necessary.
- g. The tender documents must be properly prepared. Failure to have proper tender documents is main cause of claims.
- h. The tender list (if possible) should comprise of competent contractors with a good track record. Claim conscious contractors should be avoided. Where it is not possible to short-list, the tender documents should contain a requirement that contractors submit their record of litigation and this must be evaluated and contractors with a bad records should be eliminated
- i. The Consultants should make sure that the Client has understood and approved the tender package (drawings, specifications, bills of quantities, bidding procedures and draft contract). The tender document must be clear and lucid.

- j. The tenderers should be given ample time to prepare their tenders.

#### **2.6.5.2 During the tender Process**

The tender documents must clearly define how the tender process will be conducted and the documents that bidders are expected to submit. The process should be transparent and fair since this ensures confidence by the tenderers in the process and the results there-of.

- i. It is very important that all tenderers visit the site together with the Consultants so that they can appreciate the project better. A pre-tender site visit and meeting would achieve this.
- ii. Tenderers should be given an opportunity to raise any questions or seek clarification on any aspect of the project. This would be done by the issuance of addenda.
- iii. The tender evaluation should be carried out in a fair and ethical manner. This ensures that the most competitive and competent tenderer is recommended for award of contract. Selection of an unsuitable contractor is normally the beginning of contractual claims.
- iv. Prior to appointing the contractor, a “negotiation” or “pre-award” meeting should be held for both parties to ensure that there are no “grey areas”.
- v. The contract documents prepared should be complete and unambiguous.
- vi. The contract should be signed and all the parties given a complete set for their use and records.

#### **2.6.5.3 During Construction**

Referring to (Riddley-Duff and Cliff, 2011)

- a. The site should be handed over on time.

- b. Complete construction Information should be handed over at commencement of the contract.
- c. The Consultants should ensure that they provide proper supervision and respond to any issues that may arise promptly.
- d. The Contractor should properly mobilize and provide all the required resources as per their accepted tender submission.
- e. The Contractor should diligently carry out the works as per design, specifications and workmanship and ensure that the necessary tests and approvals are in place.
- f. Regular progress and management meetings between the Consultants and Contractor should be held
- g. Valuations, certificates and payments should be handled in accordance with the terms of the contract.
- h. Any claims from the contractor should be addressed and resolved promptly to avoid a build-up of unresolved matters.
- i. Measurements of works should be carried out and signed-off as works progresses.
- j. The Client should be given regular cost and progress reports and any issues arising should be agreed upon promptly
- k. The Consultants and Client should avoid making many variations since these will normally lead to cost and time over-runs and consequently contractual claims
- l. At practical completion, a snag list should be prepared and upon the snags being made good, practical completion should be certified.

- m. The documentation required at this stage (as-built drawings, operating and maintenance manuals, etc.) should be submitted and approved.
- n. A draft-final account should be prepared and signed off at practical completion

#### **2.6.5.4 During the Defects Period**

The contract should provide for regular joint inspections during this period.

During the inspections, a list of identified defects should be prepared and the contractor given access to attend to the defects.

At the end of the defects period, a final joint inspection should be carried out and the defects made good.

Thereafter a Final Account should be signed and the final payment certificate based on the final account is issued and paid.

#### **2.6.6 Jurisdiction of the Arbitrator**

The jurisdiction of the arbitrator or the arbitrator's legal authority arises from the intention of the parties in the Arbitration Agreement and/or the arbitration statute. The intention of the parties is to be determined from the Arbitration Agreement or the provisions of the contract between the parties if one exists.

An arbitrator has also the jurisdiction to make preliminary rulings, such as issues related to discovery of documents and individuals, and issues as to whether there are points of law that could be considered in advance.

It is important that lawyers recognize when they are acting as arbitrators that there is a significant difference between litigation and arbitration. An arbitration is an adversarial process but it need not be confrontational. Arbitration can be flexible; however, there must be some rules to be used to control the conduct of the arbitration.

The arbitrator has a duty to hear all the relevant evidence advanced by the parties. All the parties should be present at the arbitration. The basic principles of natural justice apply. That is, the arbitrator should be unbiased and fair to both sides. He must listen to both sides and must allow both parties to present their cases fully and to answer the case of the other side.

### **2.6.7 The Arbitration Process**

After the arbitrator has been appointed, the arbitrator should convene a meeting to discuss a myriad of factors with the parties, some of which are the date and location of the arbitration, hearing times during the day, discovery process, experts – and are their reports to be utilized, documents – the relevant documents should be assembled by the claimant, and the respondent should provide the additional relevant documents it believes are relevant then they should be assembled in chronological order and presented to the arbitrator at least one week in advance of the hearing, The parties should also provide the arbitrator with opening submissions and/or a statement of the claim and response. a schedule should be required by the arbitrator as to timing of these events, witnesses – if possible, each party should exchange a list of witnesses, witness affidavits – the parties should agree that the witness statements will be provided to the arbitrator in the form of statements or affidavits; this process expedites the hearing to a considerable degree as it is not necessary to spend a great deal of time on direct evidence and the opposing party can proceed almost immediately into cross-examination on the statement or Affidavit. There should be dates when in an agreed schedule as to when these documents should be produced, Court Reporter – the issue should be discussed as to whether a court reporter is needed and Site View – the parties may agree that the arbitrator should view the site at some time before the arbitration commences. In my opinion a site view would be a unique or unusual (Chapell *et al.*, 2005).



## **2.7 Theoretical Framework**

Decisions should ideally be made under conditions in which all factors of influence, and the decision-making methods result in predictable outcomes. However, decision-making often happens under conditions of risk and uncertainty. Construction projects never run under the ideal conditions of certainty. A decision is made under conditions of risk if the decision maker is able to assess rationally or intuitively, with a degree of certainty, the probability that a particular event will take place, using as a basis his information about similar past events or his personal experience (Ceric, 2003).

If we accept that there is little doubt that the costs of disputes is significant, or at least that it is wasted resources that can be allocated elsewhere, then this must be addressed in some manner. It is worthwhile at this point to consider then the studies that have explored the reasons why disputes occur and therefore this section is devoted to highlighting the key literature which discusses sources of disputes (McGeorge, et al, 2007).

## **2.8 Conceptual Framework**

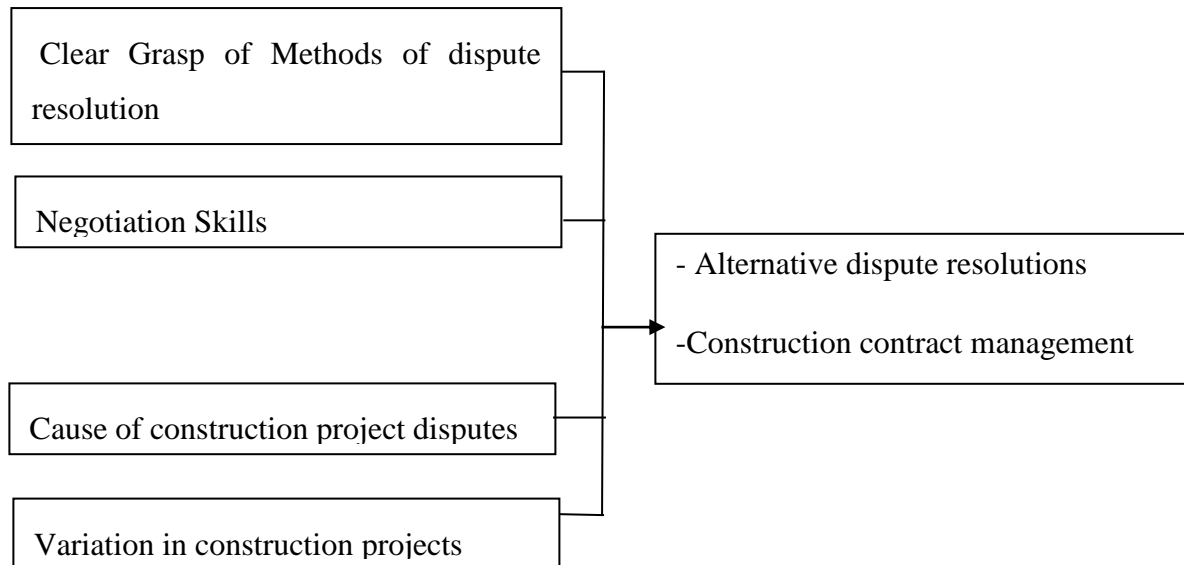
From the theoretical framework the variables that influence effectiveness of dispute resolution methods are hereby construed to be independent variables in the study, as shown in Figure 2.4.

**Independent variables:**

**Dependent variables:**

Application of dispute Resolution Methods

Resolving disputes



**Figure 2.4. Conceptual Framework (Riddley-Duff & Cliff, 2011)**

At the first stage of construction contract preparation, every Construction project is expected to be performing as it is prepared within given time limit, estimated budget, detailed and with compliance to the client requirements. However undesirable project performance results have been reported from one project to another in various forms such as low productivity, delays, cost overrun, and poor quality as a result of variation. problems arising from poor contract management and misinterpretation of the clauses include the changes in contract work, differing in unusual site conditions actually encountered, suspension of works, variation in quantities, re-inspection and acceptance, termination for the convenience of the client, possession prior to completion, escalation of price due to inflation, acceleration of work progress, currency fluctuation effect, ambiguity in specifications and drawings.

If these conflicts are not clearly managed, Claims are made by the contractor and if the claims are not get clearly resolved, disputes arise. To solve all dispute issues there are Alternative dispute resolution methods:

1. **Negotiation:** is a process of working out an agreement by direct communication.
2. Standing Neutral
  - i. Dispute Review Board: It is essentially a process where an independent board of three people evaluates disputes as they arise during the project and make settlement recommendations to the parties.
  - ii. Dispute Resolution Adviser: The basic concept of a Dispute Resolution Adviser involves the use of a neutral third person who advises the parties to a disagreement or dispute and suggests possible settlement options.
3. Non-Binding Resolution
  - i. Mediation and Conciliation: are essentially informal processes in which the parties are assisted by one or more neutral third parties in their efforts towards settlement.
  - ii. Adjudication: process where a neutral third party gives a decision, which is binding on the parties in dispute unless or until revised in arbitration or litigation.
4. Binding Resolution
  - i. Arbitration: most commonly used mechanism for settlement of technical disputes in a construction project. It is a quasi-judicial process to the extent that legal protocol is largely observed, and it is important that the arbitrator, who basically acts as a judge, understands legal procedures.

- ii. Provision of Neutral Arbitrator: the most careful planning cannot always prevent disputes and this step is the last chance to resolve a dispute before resorting to a binding settlement.
- iii. Litigation: Much distinction can be made between the process of litigation and arbitration.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter provides the research procedures used, reviews the instruments used in collecting the data, and discusses reasons why particular instruments were used over others. It also shows how the questionnaires were administered and methods used to select the respondents and their justification. Data analysis is also discussed.

#### **3.2 Research Strategy and Design**

The research approach and techniques used in this study was descriptive technique. As suggested, a descriptive research determines and reports the way things are (Fellows and Liu, 2003). Both the qualitative and quantitative techniques were applied and are useful in this study for the purpose of triangulation. The quantitative research approach was used to measure the causes and impacts resulting from contractual disputes, whereas the qualitative method served as the most appropriate method to analyze the current practices of disputes resolution in the Rwandan construction industry. It is also appropriate for developing a set of guidance on the best practices of dispute resolution on construction projects. The quantitative method involves the use of questionnaire which is best to capture a large set of data from respondents. The qualitative method was used to capture data that requires explanations and content analysis

#### **3.3 Data Collection Methods**

The data collection methods are approaches used to gather data to be used as a basis for explanation, inference, prediction or action. These methods are determined by the research methodology adopted.

A survey was done and questionnaires were used to collect both quantitative and qualitative data from the respondents, these were analyzed using SPSS and spread sheets,

then ranked, and a sample t-test was made from the overall view in order to draw conclusions and recommendations.

The responses were obtained from various professionals on all contractual parties. This is to say developers, consultants and contractors involved in the industry. Moreover, professionals from streams with relation to disputes resolution were approached as well.

The data collected was both primary and secondary data; the primary data was collected through questionnaires and interviews.

1. Interviews: Interviews with professionals from all streams involved in disputes resolution helped this work to effectively address the multidimensional themes surrounding the disputes resolution on construction projects. The involvement of participants with various backgrounds of knowledge ranging from academicians, professionals to public and private representatives is key to this complex and multidimensional issue.
2. Structured Questionnaires: a questionnaires was designed to reach out to a significant number of construction professionals that work consistently on construction projects. The questionnaire method was preferred because:
  - i. it is easier to develop
  - ii. it is more reliable and provides data which are easy to analyse
  - iii. it gives precise information about the respondent's degree of agreement
  - iv. it is feasible to give an empirical test to each statement for discriminating ability

The questionnaire for the study was in three sections which are: (i) respondents' background and experience (ii) the current practices on disputes resolution (iii) actions required for the development of the set of guidance for best practices.

The respondents' background contains open ended questions that relate to the respondents and their organizations. The second section asked questions about the causes of disputes and the level of application of dispute resolution methods in the construction industry. The third section asked questions on the effectiveness of the existing methods of alternative dispute resolution and the methods of improve dispute resolution process in the Rwandan construction industry. Section two and three were based on five point Likert scale which ranges from 1 = very low to 5 = very high.

### **3.4 Population**

The population of this study are the professionals on construction projects such as the architects, quantity surveyors, engineers, project managers, contractors and the arbitrators/adjudicators like the staff of the Kigali International Arbitration Centre. The list of professional in the Rwandan construction industry was collected from the umbrella body (Rwanda Institute of Architects) which houses the engineers and the quantity surveyors. There is no source for the collection of data on the number of construction managers, hence the purposive sampling was used. The list of contractors in Rwanda was obtained from the Rwanda Development Board. The arbitrators and adjudicators have also not had a body, so they were contacted through the purposive sampling technique, of the 396 companies registered in Rwanda Development Board (2019), only a small proportion were selected to be plotted namely 121 contractor's companies, 39 experts of Kigali international Arbitration Centre (KIAC) experts and 32 Consultant Companies, all of which will encompass 1,349 professionals. In addition, during distribution of questionnaires and interview in these companies, professionals such as adjudicators, dispute resolution managers, quantity surveyors, architects and civil engineers within these organizations were targeted.

**Table 3.1: Research Population (Rwanda Development Board, 2017)**

Items	Number of registered companies	Number of civil engineers	Number of registered architects	No of quantity surveyors	Total of engineers, architects and quantity surveyors
Contractors	121	897	99	143	1,139
Consultants	32	248	14	11	273
Total	153	1,145	113	154	1,412

The sampling frame included the list of engineers and Architects and Quantity surveyor in Rwanda as published by the respective registration boards.

### 3.5 Sampling technique

This study referred to Slovin's formula developed in 1960 as a sampling technique to sample size. Below is the Slovin's formula and its application in the current study:

$$n = \frac{N}{1 + Ne^2} = 1412 / (1 + 1412 \times (0.05 \times 0.05)) = 312$$

Where:

n: is the sample size

N: is the population size

e: is the margin of error

1: is a constant value

Therefore, the sample size for this study was 312 construction industry professionals in the design and constructing sectors of the industry.



### 3.6 Data Analysis

Analysis is an interactive process by which answers are examined to see whether the results are relevant to each research question (Backstrom & Hursh-Cesar, 1981). Quantitative statistical analysis for questionnaire used Statistical Package for Social Sciences (SPSS version: 21.0.0.0 for MACOS) and Microsoft excel.

#### 3.6.1 Descriptive Analysis

With descriptive analysis, the results for Likert scale questions were interpreted as suggested by Agresti and Franklin (2008). This provided respondents with values to choose; that is from 1 to 5

Interpretation of the mean: mean as descriptive statistical for measuring central tendency of distributions was evaluated based on the following intervals and equivalences: 1.00-1.75: Very low mean.

**Table 3.2. Scale of Interpretation (Franklin and Agresti., 2021)**

Mean	Interpretation
$1 \leq \mu \leq 1.8$	Very low mean
$1.9 \leq \mu \leq 2.6$	Low mean
$2.7 \leq \mu \leq 3.4$	Neutrality
$3.5 \leq \mu \leq 4.2$	High mean
$4.3 \leq \mu \leq 5$	Very high mean
$\sigma \leq 0.5$	Homogeneity of responses
$\sigma > 0.5$	Heterogeneity of responses

Table 3.2 shows that if the mean score is between 1-1.8 this indicates very low mean and the fact is not apparent; 1.9-2.50 this shows that there is a low mean and the fact appears less; 2.7-3.4 this means that respondents remain neutral, 3.5-4.2 this indicates that there

is a high mean and the fact appears more; 4.3- 5 this shows that there is very high mean and strong evidence of the existence of the fact.

Further, if the standard deviation is great than 0.5 it is concluded that responses were heterogeneity and if standard deviation is less than or equal to 0.5 the responses are heterogeneity Agresti and Franklin (2012).

### **3.7 Ethical Considerations**

According to (Kombo, 2006), researchers whose subjects are people must consider the conduct of their research, and give attention to the ethical issues associated with carrying out their research.

Regarding consent, the participants were informed about the nature of the study. All of the aspects of the research that were likely to affect their willingness to become participants were disclosed. This included the time the session was likely to take.

Confidentiality was treated with utmost regard. The author conformed to data protection guidelines, which meant that information obtained from any research participant was confidential (unless there was an agreement in advance that this was not to be the case). In this regard, the author took care to ensure data obtained from participants remained anonymous. To do this, the researcher avoided putting down any names (whether for the respondents or their companies) on the questionnaire sheets. It was also ensured that no subject knew the identity of any other subject.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND FINDINGS**

#### **4.1 Introduction**

This chapter presents the data analysis results and their interpretation. From the data analysis results, a more effective approach to construction dispute resolution in Rwanda is formulated. The research findings include: (i) the causes of contractual disputes in the construction industry in Rwanda; (ii) the level of contractual disputes in the construction industry; (iii) the application of dispute resolution methods in the construction industry; and (iv) the effective methods of settling disputes arising from the process of implementing a construction project.

#### **4.2 Response Rate and Profile of Respondents**

The data presented in this chapter were obtained from a population of 1412 professionals working for various construction and consultant companies located in Kigali and registered in Rwanda Development Board, as well as adjudicators serving Kigali International Arbitration Centre. The sample size of the study excluding the adjudicators and the construction managers was 312. Out of the 312 questionnaires that were sent out, 261 were returned and used for the study which gives a response rate of 83.65%. In addition to the 261 responses, responses were collected from 30 arbitrators/adjudicators and 21 construction managers. This makes the total questionnaire used for the study to be 312.

In profiling the respondents, the factors considered include: profession, age groups, educational level, type of organization and years of experience. Here, the frequency table and percentages have been used to analyze the data as indicated.

#### 4.2.1 Profession of Respondents

**Table 4.1: Profession of Respondents**

Profession	Frequency	Percentage
Civil Engineers	120	38.5 %
Architects	48	15.4 %
Quantity Surveyors	57	18.3 %
Adjudicators/arbitrators	30	9.6 %
Construction managers	21	6.7 %
Developers	36	11.5 %
Total	312	100%

Source: Researcher (2021)

Table 4.1 represents the results on profession of respondents. The results in Table 4.1 revealed that the top three professions were engineers at 38.5%, architects at 15.4%, and quantity surveyors at 13.5%.

#### 4.2.2 Respondents Age Group

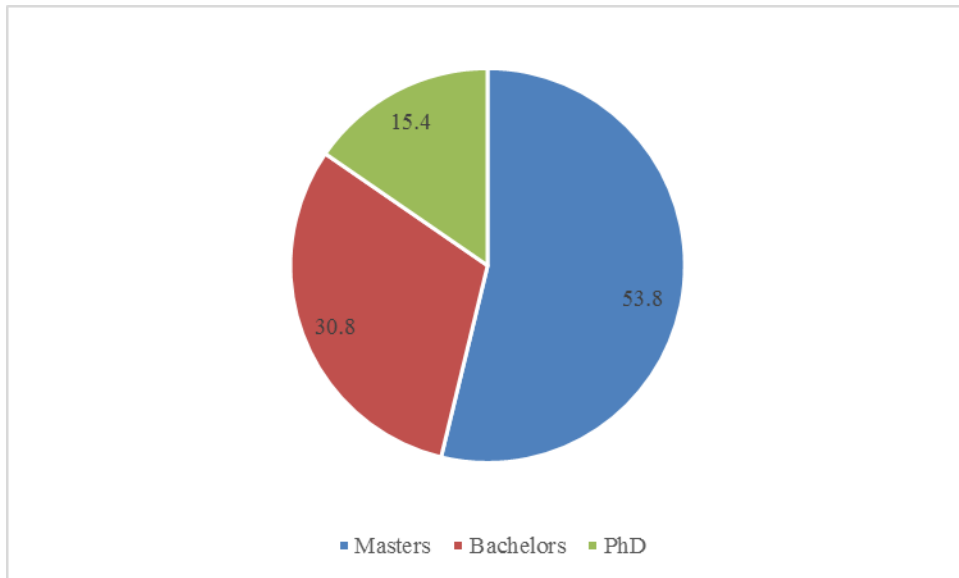
**Table 4.2: Respondents Age Group**

Age group	Frequency	Percentage
Above 55	60	19.2%
45-55	180	57.7%
36- 45	48	15.4%
18-35	24	7.7%
Total	312	100%

Source: Researcher (2021)

On Table 4.2, it is clear that 57.7% of the respondents are 45-55 years of age, 19.2% are above 55 years, 15.4% are 36-45 years, and 7.7% are 18-35 years of age. This shows that the majority (more than half) of the respondents are aged between 45 and 55 years and this shows they are still in good working ages.

### 4.2.3 Respondents Level of Education



**Figure 4.1: Respondents Level of Education (Source: Researcher, 2021)**

The Level of respondent's education were indicated in Figure 4.1. Masters holder were 53.8%, PhD holders were 15.4% and 30.8% were bachelor's degree holders. This shows that all the respondents for the study were educated beyond the first degree and qualify to give useful information.

### 4.2.4 Type of Organization

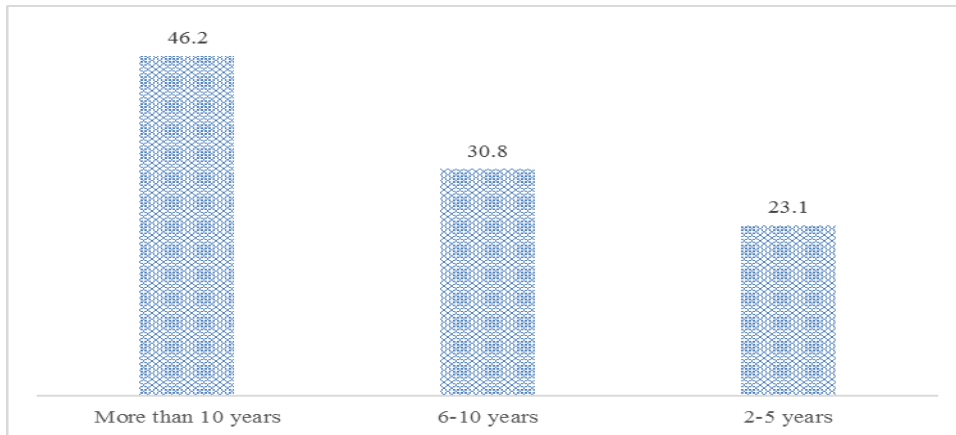
**Table 4.3: Type of Organizations**

Type of Organization you work for	Frequency	Percentage (%)
Main Contractor.	144	46.2
Consultant	96	30.8
Sub-contractor	48	15.4
Developer	24	7.7
Total	312	100

Source: Researcher (2021)

Table 4.3 shows that 46.2% of the respondents work for contracting organisations, 44.2% work for consulting organizations and 9.6% work as adjudicator or arbitrator. This shows that the consultants and the contractors are well represented in the study.

#### 4.2.5 Respondents Level of Experiences



**Figure 4.2. Experiences (Source: Researcher, 2021)**

Figure 4.2 shows that 46.2% of the respondents had more than 10 years of work

**Table 4.4: Stage of the construction process respondents came into participation**

Elements	Frequency	Percentage
Superstructure	132	42.3
Finishes	96	30.8
Substructure	48	15.4
Preliminary works	36	11.5
Total	312	100

experience, 30.8% had between 6-10 years of work experience, and 23.1% had between 2-5 years of working experience. This shows that about half of the respondents have adequate requisite experience to give the needed information for the study.

#### 4.2.6 Stage of the Construction Process Participants Came into Participation

Table 8 indicates the stage at which respondents joined the project and it was clear that 42.3% of projects were at superstructure stage, 30.8% of projects were at finishes level,

15.4% of projects were at substructure level and 11.5% of the projects were at site preparation stage. This shows that many of the respondents joined their projects at a good stage so they good understand the dispute issues on the projects.

### 4.3 Application of Effective Dispute Resolution in Construction Contract

It found in this study that, delays and workmanship are the most important types of disputes expected to occur in road construction projects while disputes over wastage were ranked the lowest. See the table 4.5 for findings and analysis

**Table 4.5: Application of effective dispute resolution**

Causes of disputes	Preliminary works (%)	Substructure (%)	Superstructure (%)	Finishes (%)	Total (%)
Failure to comply with the specifications	16	34	17	16	83
Delays in completion	29	18	10	21	78
Failure to comply with plans	18	16	18	11	63
Poor workmanship	0	3	23	16	42
Wastage of material	6	7	6	9	28
Cost of remedying defective works	7	8	8	3	26
Refund of advance paid to the contractor	6	6	6	8	26
Unauthorized variations	5	7	7	7	26
Liquidated damages	2	0	2	6	10
Costs related to the resolution of the dispute	5	1	2	1	9

**Table 4.6. Cause of disputes in construction contract**

Causes of Disputes on projects	Engineers (%)	Architects (%)	Quantity Surveyors (%)	Total (%)
Payment for variations	36	25	34	95
Extension of time	31	29	18	78
Cost escalation	39	3	3	45
Retention money	15	9	9	33
Return of the guarantee held by the Employer	17	6	7	30
Wrongful termination of contract and Loss of profits	14	8	7	29
Delays in site possession	14	6	7	28
Compensation for machinery and equipment confiscated by the employer	11	7	8	26
Costs related to the resolution of the dispute	14	5	7	26
Interest	8	2	-	10

**Source: Researcher (2021)**

Table 4.5 depicts the causes of disputes on construction projects at different stages of construction process. the result was presented in percentages and in descending order, failure to comply with the specifications came top with 83%, followed by delay in completion with 78%, failure to comply with plans with 63%, poor workmanship with 45%, wastage of materials with 28%, cost of remedying defective works with 26%, refund of advance paid to the contractor with 26%, unauthorized variations with 26%, liquidated damages with 10% and costs related to the resolution of the dispute with 9%.



### 4.3.1 Construction Contract Disputes from the Contractor

Based on the result from Table 4.6. Payment of variations was considered to be the most significant cause of disputes affecting engineers, land surveyors, architects and quantity surveyors at 19%, 17%, 25%, and 34% respectively. Extension of time seconds with 21%, 10%, 29%, and 18% accordingly. Apparently, two trends namely; ccompensation for machinery and equipment confiscated by the employer and costs related to the resolution of the dispute, share similar mean of occurrence. Jointly, payment for variations was the highest cause of dispute (95%), followed by extension of time (78%), cost escalation (45%), retention money (33%), wrongful termination of contract and loss of profits (29%), delays in site possession (28%), compensation for machinery and equipment confiscated by the employer (26%), interest (10%), return of the guarantee held by the employer (30%), and costs related to the resolution of the dispute (26%).

**Table 4.7. Level of application of effective dispute resolution**

Variable	Mean	Std. Dev.	Rank	Interpretation
Delays	4.62	0.68	1	Very high mean with heterogeneity of responses from the respondents
Specification	4.15	0.86	2	High mean heterogeneity of responses from the respondents
Poor Plans	4.12	0.75	3	High mean heterogeneity of responses from the respondents
Workmanshi	4.00	1.11	4	High mean heterogeneity of responses from the respondents
Unauthorized works	3.58	1.08	5	High mean heterogeneity of responses from the respondents
Defective works	3.15	0.91	6	Neutrality heterogeneity of responses from the respondents

Source: Researcher (2021)

**Table 4.7. Level of application of effective dispute resolution (Cont'd)**

Variable	Mean	Std. Dev.	Rank	Interpretation
Refunds	3.15	1.10	7	Neutrality heterogeneity of responses from the respondents
Resolution process	3.15	1.20	8	Neutrality heterogeneity of responses from the respondents
Liquidated damages	3.08	1.18	9	Neutrality heterogeneity of responses from the respondents
Wastage	2.81	1.18	10	Neutrality heterogeneity of responses from the respondents

Source: Researcher (2021)

Table 4.7 shows the responses from the 312 respondents on the level of application of alternative dispute resolution methods on their causes. Results indicate in descending order that the alternative dispute resolution methods were mostly apply in cases of delay (4.62), followed by specifications (4.15), poor plan (4.12), workmanship (4.0), unauthorized works (3.58), defective works (3.15), refund (3.15), resolution process (3.15), liquidated damages (3.08), and wastage (2.81).

#### **4.3.2 Methods Adopted to Settle Disputes Arising from Construction Contract**

Table 4.8 shows the effectiveness of the different methods of alternative dispute resolution. Hence, mean score of 4.69 was the highest and for negotiation method. After that, 4.15 followed for Mediation conciliation, 3.42 for Determination, 2.81 for Adjudication, 2.5 for Dispute Boards, 2.58 for Arbitration, and 2.85 for arbitration-mediation.

**Table 4.8: Effectiveness of the methods of dispute resolution in construction contract in Rwanda**

Dispute Resolution methods	Mean	Std. Dev.	Rank	Effectiveness
Negotiation	4.69	0.82	1	Very effective
Mediation	4.15	0.72	2	Effective
conciliation				
Determination	3.42	0.84	3	Averagely effective
Arbitration	2.85	1.13	4	Averagely effective
Mediation				
Adjudication	2.81	0.96	5	Averagely effective
Arbitration	2.58	1.01	6	Averagely effective
Dispute Boards	2.50	1.12	7	Averagely effective

Source: Researcher (2021)

All of the above processes using alternate dispute resolution procedures are unique and have been found to work in various circumstances. The best manner of doing that is determining that in advance with the parties prior to entering into any agreement so that there is no doubt as to what process or processes are to be followed. There is no doubt that the alternate dispute resolution process has definite advantages over the court system, both in the area of economics and in timeliness of results. For instance, choosing an effective ADR process while everyone is still friends is a good idea. A project neutral too, takes out biased perceptions and prevent small issues to turn bigger.

### **4.3.3 Methods of Evaluation and Management of Dispute within the Contract**

The part of the study was based on qualitative data collection as mentioned earlier. It involved interview of experts on their view of how disputes may be evaluated and managed in case of future projects. Hence their submissions are found below:

1. Most forms of contract place the responsibility of evaluating and managing claims on the Project Manager and Architect. Some contracts mention the Quantity Surveyor. This must be obeyed.
2. The truth in the market is that in most instances, the Quantity Surveyor is usually called upon to evaluate claims on behalf of the Project Manager or Architect. Hence, the level of quantity surveyor's knowledge of the required skills and temperament suitable for handling this task is important.
3. The evaluation of claims is not complicated if the person evaluating the claim observes the following:
  - i. A clear understanding of the wording and spirit of the contract.
  - ii. Honesty and fairness in addressing the issues.
  - iii. The person should have been involved in the project from the beginning and is well versed with what has transpired.
  - iv. A level headed and sober approach to the issues even when the consultancy team is at fault and must admit mistakes on their part.
  - v. An analytical mind to be able to evaluate all factors and see how they relate to each other.

- vi. The ability to engage the contractor in “negotiations” to resolve most of the issues in an amicable manner.
4. Should be able to convince the client to accept to pay the amount that the consultants recommend. It is disastrous when a Client disagrees with the Consultant’s recommendations for settlement of a contractual claim it is always better to manage the project in such a manner that issues are resolved when they arise.
5. In public sector projects, the evaluation of claims might not be straight-forward because other agencies like Public Procurement Authorities, Office of Auditor General, Office of the Inspector General of Government, Attorney/Solicitor General and the Central Bank get involved in giving opinions and clearance on how the claim should be evaluated.
6. The Quantity Surveyor should always bear in mind that as the contact and cost advisor of construction contracts, claims should be well managed since any claim that is not properly managed under the contract inevitably ends up going to Alternative Dispute Resolution or Litigation.

#### **4.4 Discussion of Findings**

The study investigated the effectiveness of the alternative dispute resolution methods in the Rwandan construction industry. To achieve this, the study assessed the causes of disputes, the level of application of dispute resolution methods, the effectiveness of the dispute resolution methods and the methods that can be adopted to manage and evaluate construction dispute.

The main causes of dispute on construction projects in Rwanda are payment for variations was the highest cause of dispute, followed by extension of time, cost escalation, retention money, wrongful termination of contract and loss of profits, delays

in site possession, compensation for machinery and equipment confiscated by the employer, interest, return of the guarantee held by the employer, and costs related to the resolution of the dispute. These causes are consistent with literature and it is evident that the standard forms of contract used to execute a project is key in determining the level of dispute and its causes.

Furthermore, the study indicated that alternative dispute resolution is mostly used on delay issues, poorly written specifications or lack of specifications, poor plan or drawings generally, poor level of workmanship, unauthorized works that are done by the contractor or expected to be done by the contractor, defective works leading to reworks, refunds based on claims, and the level of agreement with the resolution process of dispute. Apart from the findings of this study, the results are not basically founded in literature. However, it is widely accepted that delays, incomplete drawings, poor workmanship, reworks and variations, and claims are prominent sources of disputes on construction projects which needs adequate mitigation strategies.

The order of the effectiveness of the alternative dispute resolution methods in this study is negotiation, mediation conciliation, determination, adjudication, dispute boards, arbitration, and arbitration-mediation. Literature observed that the alternative dispute resolution methods are more beneficial to the construction industry experts than the litigation method. However, the effectiveness of the methods remains lacking in context. This study found that the most effective method is the negotiation and mediation method.

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATION

#### 5.1 Introduction

This chapter gives the conclusions, recommendations and areas of further research. The main objective of this study was to investigate the effectiveness of the alternative dispute resolution methods in the Rwandan construction industry. It also investigated the methods to be used for dispute resolution in the Rwandan construction industry in case of future disputes. This was achieved through the following specific objectives:

- i. Assessing the causes of contractual disputes in the construction industry in Rwanda.
- ii. Examining the level of contractual disputes in the construction industry.
- iii. Investigating the application of dispute resolution methods in the construction industry.
- iv. Determining the effective methods of settling disputes arising from the process of implementing a construction project.

#### 5.2 Summary of the Findings

After analyzing different responses, the important issues which are common to all categories were identified and according to this research finding; disputes in the Rwandan construction sector can be prevented by; ensuring proper contract records, adherence to the work programme, adequate communication between parties to contract and establishment of alternative dispute resolution centers.

For the effectiveness of these findings, professionals from various streams; policy makers, Government high ranking officials, Stakeholders and funding organs should own the research findings and strive for their implementation.

In answering the research questions in chapter one, all the findings as mentioned in this chapter should be respected and followed critically so as to combat disputes issue on construction projects.

As the purpose of this research project was to assess the effectiveness of contractual disputes resolution process and develop a set of guidance for proper management of construction disputes in Rwanda. It is clear from data analyzed in chapter four, that there is clear gap with the current practices. It was also noticed that disputes majorly occur as results of project delays, cost overruns and poor quality delivered.

This study targeted all professionals from all contractual parties; developers, contractors, and consultants irrespective of public or private background categories. The study used both qualitative and quantitative methods of data collection and analysis.

Responses from the 312 respondents revealed that project delays were the main cause of disputes in construction contract “Resolution of project delays due to variation is the main cause of disputes in construction contract” with mean and standard deviation ( $\bar{x} = 4.62, SD = 0.68$ ). This indicated that the responses had heterogeneity given that  $SD=0.68 > 0.5$ . The lowest level of dispute resolution in construction contract was for the item “resolution” with mean and standard deviation ( $\bar{x} = 3.15, SD = 1.20$ ).

This indicated that the responses had heterogeneity given that  $SD=1.20 > 0$ . And 4.69 mean agreed that negotiation is the method for dispute resolution in construction projects, 4.15 mean agreed that mediation conciliation is the method for dispute resolution in construction projects, 3.42 mean agreed that determination is the method for dispute resolution in construction projects, 2.81 mean agreed that Adjudication is the method for dispute resolution in construction projects, 2.5 mean agreed that Dispute Boards is the method for dispute resolution in construction projects, 2.58 mean agreed that arbitration is the method for dispute resolution in construction projects, 2.85 mean



agreed that arbitration-mediation is the method for dispute resolution in construction projects.

### **5.3 Conclusions**

Increased focus on construction development as a means of achieving economic growth in developing countries has led to growth in construction activities in the public and private sector. As an unintended consequence, growth in construction activity has a knock-on effect on dispute emergence. The process of construction dispute resolution in Rwanda, as this study found, was beset with much inefficiency. Absence of coherent dispute resolution strategy meant limited focus on dispute handling strategies other than the traditional resolution mechanisms in use which were plagued by numerous practical and contextual challenges. To deal with the problem, a modern approach focusing not merely on resolution but also avoidance and management was required. Beyond this, it was imperative that such an approach was cohesive. Not only must the dispute handling strategies be integrated but such plans must also be integrated into programme and plans of individual parties taking into account the project context.

The research examined contract dispute resolution process and develops an effective approach for Rwanda. Various project team members had different choices of dispute resolution. In Rwanda, architects and engineers were appointed prior to the design process in most projects. Based on the survey results, 10 significant causes of disputes in Rwandan construction industry were identified. The result seemed to be consistent with results of other similar studies though there might be differences in ranking.

This meant that most projects were conceived with inaccurate information since there was no professional input at the planning phase in most projects. Consequently, in majority of the projects, the client alone, did site selection and validation, and, the needs identification and validation, which often happens at planning phase. This lead to unsuitable sites that increased variation for sub-structure works. The ones executing was not involved in needs identification and validation process in many projects surveyed.

Compliance with external political strategy and organization strategies was the main criteria in needs identification. There were change orders in a majority of the projects arising from change in needs during construction works. The contract development process was inefficient in many projects and led to inaccurate estimates that later negatively affected project performance. Most estimates for time and cost were done early at project planning without the active role of skilled professionals.

#### **5.4 Recommendations**

This research examined contract dispute resolution processes in Kigali and assessed which method that is preferred to effectively disputes and the required parameters.

Accordingly, the researcher recommends the formal and structured dispute management during project planning and with the involvement of construction professionals.

Additionally, the researcher recommends continuous development seminars in effective dispute resolution for all professionals in Rwanda and especially those in construction projects planning and procurement departments of both private and government developers.

Moreover, qualified project managers who are architects, quantity surveyors or engineers be included in all construction contract projects, in preliminary budget and schedule development.

Finally, major developers should retain the services of competent consulting architects or engineers throughout and, these consultants should be included in top level decision making meetings to advice on construction issues.

#### **5.5 Areas for Further Study**

There is laxity in record keeping among practitioners in construction sector in Rwanda; this can be overcome by conducting more research in knowledge management. In

addition, the Rwandan Construction industry has not appreciated the effectiveness of alternative dispute resolution methods, mainly due to lack of awareness of the advantages they offer. More research is therefore required to justify the extent of applicability of these methods as they seem to be new in dispute resolutions.

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## APPENDICES

### **Appendix I: Introduction Letter to Respondents**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY  
SCHOOL OF ARCHITECTURE AND BUILDING SCIENCES (SABS)  
DEPARTMENT OF CONSTRUCTION MANAGEMENT

Dear Sir/Madam,

RE: INTRODUCTION TO RASPONDENTS

I am a student at Jomo Kenyatta University of agriculture and Technology, School Of Architecture And Building Science currently in my second year of study, undertaking a research dissertation entitled “**EFFECTIVENESS OF ALTERNATIVE DISPUTE RESOLUTION METHODS IN THE RWANDAN CONSTRUCTION INDUSTRY**” which is one of the requirements for the award of Master degree in Construction Project Management.

I therefore kindly request you to support this research by filling this questionnaire honestly and sincerely.

I assure you that all the information given shall be used strictly for academic purposes only and shall be treated with utmost confidentiality.

Find attached herewith the copy of the questionnaire to be filled.

Thank you very much for your kind consideration.

Sincerely

OSIRI Jean D’Amour

Student, Masters in Construction Project Management.

**Appendix 11: Questionnaires**

Instruction: Please answer the following questions by crossing the irrelevant block and ticking the relevant block.

Title: Application of effective disputes resolution in construction contracts in Rwanda

**SECTION I. DEMOGRAPHY AND CONSTRUCTION INFORMATION BACKGROUND**

Profession.

- Engineer     Land Surveyor     Architect     Quantity Surveyor
- Environmentalist     Land Valuer     Geo-technicians     Arbitrator
- Other (Specify).....

Your age.

- 18-35     36- 45     45-55     Above 55

Education Level.

- Higher Diploma     Bachelors     Masters     PhD     Other
- (Specify).....

Type of Organization you work for

- Main Contractor.     Sub-contractor.     Other (Specify).....

How familiar are you with kind of work?

- Not at all familiar       Slightly familiar       Somewhat familiar
- Moderately familiar    Extremely familiar

How long have you been doing this kind of work?

- 1 year       2-5 years       6-10 years       More than 10 years.

SECTION II. CAUSE OF DISPUTES IN CONSTRUCTION CONTRACTS IN RWANDA.

	1	2	3	4	5
Delays in completion					
Poor workmanship					
Failure to comply with plans					
Failure to comply with the specifications					

Cost of remedying defective works					
Wastage of material					
Refund of advance paid to the contractor					
Unauthorized variations					
Liquidated damages					
Costs related to the resolution of the dispute					
Other (Please specify)					

1. With respect to application of effective dispute resolution in construction contract from the Employer/Developer, how you would rate the following on a scale of 1-5; with 1 being the strongly disagree, 2. Disagree, 3. Undecided, 4. Agree and 5 being strongly agree.

2. With respect to construction contract disputes from the Contractor, how you would Rate the following on a scale of 1-5; with 1 being the Very Poor, 2. Poor, 3. Fair 4. Good and 5 being the very good?

1	2	3	4	5
---	---	---	---	---

Extension of time					
Payment for variations					
Cost escalation					
Retention money					
Wrongful termination of contract and Loss of profits					
Compensation for machinery and equipment confiscated by the employer					
Delays in site possession					
Return of the guarantee held by the Employer					
Costs related to the resolution of the dispute					

interest					
Other (Please specify)					

3. In your experience, how often do contract disputes arise in your option?

0%-24%	
25%-49%	
50%-74%	
75%-100%	

4. In your experience, who are the key players in dispute resolutions, how you would rate the following on a scale of 1-5; with 1 being Strongly Agree, 2. Agree, 3. Undecided, 4. Disagree and 5 being Strongly Disagree.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Project					

Managers					
Quantity Surveyors					
Architects					
KIAC players					

5. With respect to construction contracts, to what extent are the following measures used to settle disputes arising from construction contracts in your company, how you would rate the following on a scale of 1-5; with 1 being Very high extent, 2. High extent, 3. Uncertain, 4. Low extent and 5 being Very low Extent.

Very high extent	High extent	Uncertain	Low extent	Very low Extent
------------------	-------------	-----------	------------	-----------------

Negotiation					
mediation and conciliation					
Expert Determination					
Adjudication					
Dispute Boards					
Arbitration					
Arbitration and Mediation					
Other (Please specify)					

### SECTION III. OPEN QUESTIONS



In your opinion how can be construction contract disputes mitigated before project implementation?.....  
.....

In your opinion, what improvements can be made to dispute resolution methods to tailor them to Rwandan contracts?  
.....