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AMICABLE SETTLEMENT AS AN EFFECTIVE STAGE IN THE RESOLUTION OF CONSTRUCTION DISPUTES

by
SIBA MAJED JABER

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SIBA MAJED JABER

Approved by:

Dr. M. Asem Abdul Malak, Professor — Advisor
Engineering Management Program

Dr. Issam Srour, Assistant Professor — Member of Committee
Engineering Management Program

Dr. Hiam Khoury, Assistant Professor — Member of Committee
Department of Civil and Environmental Engineering

Date of thesis defense: April 27, 2015

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AN ABSTRACT OF THE THESIS OF

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Conflicts, disputes, and claims may be considered an inevitable consequence of the construction process. If construction conflicts are not effectively addressed and managed, they can result in claims that, in turn, might evolve into serious disputes. Project participants are becoming more concerned about claims and disputes and more aware of their costly and lengthy resolution process, which is why it is very important to properly track and manage these claims.

The FIDIC conditions of contract clearly includes in several of its clauses procedures for the administration and resolution of claims. Attempting to resolve disputes through amicable settlement as opposed to arbitration or litigation can save on a lot of time and money. Both 1987 and 1999 FIDIC conditions of contract contain clauses pertaining to amicable settlement that impose the passage of a 56-day period as a condition precedent to the commencement of arbitration, however they do not prescribe any method/procedure for amicable settlement.

This research aims at exploring what the 56-day period entails prior to arbitration, as well as how amicable settlement can best be managed in order to render this period effective. An analysis of disputes faced on a number of construction project case studies will highlight advantageous and disadvantageous practices that come into play while attempting to resolve claims amicably or otherwise. The offered analysis will identify an applicable procedure and mechanism of conduct that specifies the start of the amicable settlement process, regulates its length and progression, and defines the end of this time period.

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INTRODUCTION

1.1. Background

A construction contract is, by definition, a formal agreement for construction, alteration, or repair of buildings or structures, and it involves several parties including the Owner, Architect/Engineer, and Contractor. On a main project, the Owner normally enters into a design services and construction supervision agreement with an Architect who is responsible for the design of the project, and a separate contract with a General Contractor who is responsible for its construction. Such contracts serve to state the responsibilities and liabilities of each party, with the mutual objective of successfully completing the project.

Where construction projects of diverse scopes are concerned, it is highly likely that conflicts between the various project participants will arise due to various reasons. Conflicting opinions between the Contractor, Consultant and Owner concerning the various aspects of design and construction often result in problems and disputes among these parties. As such, conflicts, disputes, and claims may be considered an inevitable consequence of the construction process. The costly and lengthy resolution of these claims and disputes has become a matter of concern for the parties involved. If construction conflicts are not effectively addressed and managed, they can evolve into serious disputes, which may result in additional time-delay costs (Seifert 2005). Resolving disputes and

managing claims in an optimal and timely manner (in accordance with the contract conditions) can minimize cost, time, and tension, which is why the claim-dispute resolution process is critical to any project, and should allow the parties to rightfully achieve their objectives (Cheeks 2003). The International Federation of Consulting Engineers (FIDIC) has prescribed in its standard contract documents a protocol to be followed by the parties to resolve claims/disputes.

When pursuing a claim, the Contractor must follow a set of procedures starting with submitting to the Engineer, within due time, a notice to claim followed by detailed supporting particulars of the amount claimed and the grounds upon which the claim is based (Fawzy and El-adaway 2012). The Engineer shall respond with approval or disapproval and detailed comments. Either the Owner or the Contractor can contest the design professional's conclusion. If both parties (Owner and Contractor) agree to and accept the Engineer's determination, this signals the end of the claim (Abdul-Malak, Saadi, and Abou-Zeid 2002). Otherwise, the party dissatisfied with the Engineer's decision could choose to give notice of intention to seek arbitration. The Engineer's decision directly impacts the Contractor and Owner financially, which is why the traditional two-step dispute resolution method is often criticized for allowing the Engineer, who is hired and paid by the Owner, to play a quasi-judicial role and expecting him to be impartial.

In addition to the traditional approach to dispute resolution, there exist several Alternative Dispute Resolution (ADR) methods, which allow for parties to settle their disputes quickly and painlessly, with or without the help of a third-party. ADR methods enjoy a number of advantages over binding arbitration or litigation: informal atmosphere, easier communication, less cost and time, maintaining a working relationship among

parties, confidentiality of proceedings, and nonbinding decision (Abdul-Malak, Saadi, and Abou-Zeid 2002). This range of options for dispute avoidance and resolution has proven helpful in solving conflicts before the parties finally resort to the lengthy and costly processes of arbitration or litigation. Creating an atmosphere that will be effective for the resolution process is the first step of preventing or resolving a conflict.

1.2. Problem Statement

According to sub-clause 20.5 of the 1999 FIDIC conditions of contract, after notice of dissatisfaction is given, the conflicting parties should attempt to resolve the dispute amicably. Amicable settlement is required here as a condition precedent to the commencement of arbitration. However, this sub-clause does not prescribe any method/procedure for amicable settlement. According to Booen (2000), no method is specified in order to give the parties the greatest flexibility in the choice of the procedure (such as direct negotiation, conciliation, or mediation). The sub-clause continues to state that unless both Parties agree otherwise, arbitration may be commenced on or after the fifty-sixth day on which notice of dissatisfaction was given, even if no attempt at amicable settlement was made.

Leaving the aforementioned 56-day period (or any other time frame the parties might mutually agree to) open to various resolution strategies might be seen as advantageous and beneficial. However, the freedom allowed for in this period might also put the parties at a disadvantage, and render this period ineffective. During the 56-day period following the 28-day period allowed for accepting or expressing dissatisfaction with the Engineer's or DAB's decision, how is the dialogue between the conflicting parties (e.g.,

Owner & Contractor or GC & Subcontractor) attempted, initiated, and organized? What does the 56-day period entail prior to arbitration, and how can the length of this amicable settlement period be made more effective? These are some of the matters to be looked into as part of the work to follow.

1.3. Research Objectives and Contribution

This thesis will address amicable settlement as an effective method in the resolution of construction disputes, and will look into the various procedures that may be followed while attempting this resolution. It will examine how the disputing parties may establish dialogue, who might pursue actions to attempt amicable settlement (and how so), how, and by whom, is communication triggered, and by whom is it facilitated, and if no third-party is involved, what kind of dialogue is taking place? The period allowing for amicable settlement might differ from one project to another, depending on the contract conditions. The influence of the start, length, and end of this period on the success of amicable settlement will be discussed. The findings will help devise a framework that allows for a more successful management of the period allowing for amicable settlement.

Most construction contracts identify the method(s) by which disputes are to be resolved. The typical construction contract calls for the use of a means other than litigation, such as mediation followed by arbitration, to resolve disputes arising under the contract. This thesis explores how amicable settlement can best be managed in order to render the 56-day period (or any other period mutually agreed to) effective, thus preventing resorting to the costly and lengthy process of arbitration or litigation. While some contract conditions allow for a certain degree of freedom in the management of amicable settlement, the findings of the

literature review and the cases under study will provide a clearer understanding of what best practices to consider and follow when attempting amicable settlement. The outcomes and recommendations of this thesis could serve as guidelines for drafting effective amicable settlement clauses, to be incorporated as particular conditions of future contracts. The importance of this research lies in proposing a strategic set of practices to be implemented during amicable settlement attempts in order to guide these negotiations to more preferable outcomes for all the concerned participants.

1.4. Methodology

The methodology followed in this thesis will consist of the following:

1. Carry out a thorough literature review about constructions claims, their causes and effects, and their evolvement into disputes. In addition to interpreting the role played by the Engineer in Dispute Resolution (Engineer's Determination/Decision), and both the Traditional Claim-Dispute Resolution and Multi-step Claim-Dispute Resolution Processes (Alternative Dispute Resolution methods).

2. Conduct a comprehensive reading of the Claim/ Dispute timeline (of both 1987 and 1999 FIDIC conditions of contract), and illustrate how and when amicable settlement is mandated as a prerequisite to arbitration or litigation. Explore the various opportunities for attempting and successfully achieving amicable settlement. Identify windows where amicable settlement may be sought, and how

the various Alternative Dispute Resolution methods can be effectively applied during this period.

3. Present a case-based review of practices: Consider several current construction projects of various scope, program, location, and contract type. Describe and analyze the major construction disputes and claims faced on these projects, and reflect on the measures followed in attempting to resolve these disputes. Taking a closer look at construction claims and dispute resolution practices of the projects under study will highlight advantageous and disadvantageous practices that come into play while attempting to resolve claims amicably or otherwise. Pinpointing which factors/practices may act as a hindrance to effective amicable settlement will allow the chance to propose a list of recommendations and lessons learnt.

4. Propose a set of guidelines for drafting effective amicable settlement clauses. Identify an applicable procedure/mechanism of conduct that specifies the start of the amicable settlement process, regulates its length and progression, and defines the end of this time period. Specify a protocol of deliberations and best practices to effectively govern the amicable settlement process based on the conclusions drawn from the literature review and case study analysis.

A comprehensive literature review will shed light on the causes and effects of claims, as well as clarify their evolvement into disputes. A list and description of the various Alternative Dispute Resolution methods available to the parties to a dispute will be presented. An analysis of the claim-dispute timeline as mentioned in the FIDIC conditions

of contract will be demonstrated. The amicable settlement stage will be defined and possible extensions to this stage will be examined. Following this comprehensive analysis, numerous cases of claims and disputes on real-life construction projects will be studied. The literature review, the reading of the FIDIC clauses, and the case study analysis all aid in the synthesis of a protocol of deliberations for the Amicable Settlement period, as is illustrated in Figure 1 below:

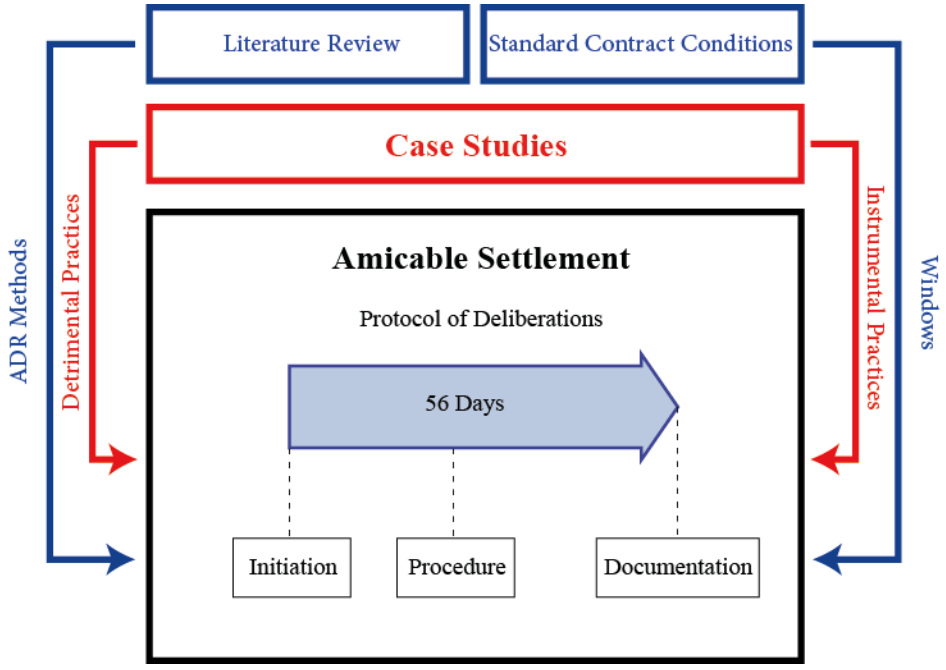

Figure 1: Organization of Findings

CHAPTER 2

LITERATURE REVIEW

2.1. Preamble

Where construction projects of various scope and complexity are concerned, conflicts, claims, and disputes will occur almost inevitably. If construction conflicts are not effectively addressed and managed, they can result in claims that, in turn, might evolve into serious disputes. The proper management of claims and disputes is essential to the success of any project. Tracking and resolving claims before they evolve into disputes has become a main concern for the project participants due to the lengthy and costly process of resolving them.

Recently, studies and practice have shown that disputes on construction projects can be resolved in various ways, without resorting to arbitration or litigation. This research through the literature review will describe the claims/disputes administration process, the role played by the Engineer during this period, and when and how a claim evolves into a dispute. It will also explore numerous alternative resolution methods available to the parties to a dispute. An analysis of the roles played by each of the Engineer and various neutral third parties involved in resolving disputes among the contractual parties will also be presented.

2.2. Construction Claims

Projects with complex designs and contract conditions are likely to result in significant extra costs and/or delays for the Contractor, which may cause claims to arise. Contractors resort to construction claims to recuperate the unlawful additional costs incurred during any construction project, and tend to argue that owners are not always fair when judging their entitlement to compensation. Owners may also resort to claims in order to recover extra costs incurred due to the poor quality of execution and/or delayed completion of the project by a Contractor (Fawzy and El-adaway 2012). Owners tend to argue that Contractors are not always reasonable when determining and quantifying the alleged entitlement. Claims may involve various parties: Owners and General Contractors, Owners and Trade Contractors, Owners and Suppliers, General Contractors and Subcontractors, among others. Expecting all claims on a project to be avoided or properly resolved can be unrealistic. However, understanding the nature of these claims and the causes that give rise to them, as well as conducting an effective risk management analysis early on in the project can allow the project participants to better deal with claims if and when they arise.

2.2.1. Definition

A construction claim can be defined as a legitimate request for additional compensation in terms of cost and/or time on account of a change in the terms of the contract or damages incurred by any party to a contract (Semple et al. 1993). Claims can be classified into several types, and may arise under various forms of construction contracts. Various delay and cost analysis methods are usually used for the validation of claims. The

entitlement of any claim is dependent on the contract documents that define the rights, obligations, and procedures that govern the project, which is why it is important to be aware of and clearly understand these conditions. Today, there are few contracts where no claims, negotiations, or settlements arise before the contract is finally closed out (Jergeas and Hartman 1994).

2.2.2. Types of Claims

All claims on construction projects relate to either additional costs incurred or extensions of time, or both. Most claims are made by the Contractor and may be claims for an extension of time for the completion of the works and/or the reimbursement of costs. Claims for additional time frequently result in a claim for additional payments. If the owner considers himself to be entitled to any payment under any clause of the contract, then the engineer shall give notice and particulars to the Contractor (Owen 2003). In general, there are two main types of claims: The "incident-based" claim and the "global" claim. When the event that gave rise to the claim can be clearly traced and identified, and the resulting impacts this incident had in terms of time, cost, or both, can be evaluated and quantified, the claim is said to be an "incident-based" claim. Gathering the necessary documentation and performing a cost/delay analysis in order to present a fully detailed claim to the Engineer should, in this type of claim, be a feasible task. When the specific cause(s) giving rise to claim(s) cannot be individually identified, the claims are grouped into a "global" claim, and their effects, in terms of delays and extra cost incurred, are combined altogether. When two or more events occur in such a way that makes it difficult to break down or attribute impacts of time or cost (or both) to specific causes, the Contractor names these

incidents and claims for a total sum of the losses and expenses incurred. In such cases, it is usually difficult to separate the causes and incidents that resulted in various effects and claims.

2.2.3. Causes of Claims

The construction industry is subject to an increasing number of claims, which can contribute to delaying a project and/or increasing its costs (Zaneldin 2006). Construction claims mainly arise due to organizational, planning and contractual problems (Mitropoulos and Howell 2001). Over the years, numerous studies focusing on determining the main causes of claims in an attempt to avoid them or at least reduce them have been made. The different factors that may cause claims and disputes to surface include varying site conditions, inadequate site- related information, poor communication and lack of coordination among the contracting parties, late possession of site, restricted access to site by owner or other third parties. Other factors include inadequate resources, insufficient design/design errors and omissions, unreliable specifications, increase in scope of work, variation orders, complexity of contract documents, size and duration of the project, labor issues and unforeseeable circumstances (Yousefi 2010). A questionnaire survey conducted by Essam Zaneldin collected and analyzed data related to the types, causes, and frequency of claims on different projects in Dubai and Abu Dhabi. The information for the 124 claims considered under this study was obtained from owners, consultants, and contractor's claims database (Zaneldin 2006). One part of the study concentrated on the causes of construction claims. It found that there are 26 potential causes of claims. The participating firms were presented with these causes and asked to evaluate their frequency as: never, rare, average,

frequent, and very frequent. An importance index percentage was then established for these causes. Table 1, which displays these causes ranked in order of importance, shows that "change orders" are ranked most frequent cause of claims, followed by delays caused by owners.

Table 1: Ranking of each cause of claims based on their frequencies (Zaneldin 2006)

Ranking of each cause of claims based on their frequencies

Causes of claims	Importance index (%)	Rank
Change or variation orders	55.0	1
Delay caused by owner	52.5	2
Oral change orders by owner	51.4	3
Delay in payments by owner	48.9	4
Low price of contract due to high competition	48.6	5
Changes in material and labor costs	46.1	6
Owner personality	45.1	7
Variations in quantities	44.7	8
Subcontracting problems	44.0	9
Delay caused by contractor	43.7	10
Contractor is not well organized	43.7	10
Contractor financial problems	43.7	10
Bad quality of contractor's work	42.6	13
Government regulations	40.1	14
Estimating errors	39.1	15
Scheduling errors	39.1	15
Design errors or omissions	38.4	17
Execution errors	37.7	18
Bad communication between parties	37.7	18
Subsurface problems	37.0	20
Specifications and drawings inconsistencies	35.6	21
Termination of work	35.6	21
Poorly written contracts	33.8	23
Suspension of work	33.8	23
Accidents	33.1	25
Planning errors	32.7	26

2.2.4. Effects of Claims

When studying claims and their effects, the incidents causing the delays and losses are identified. After clarifying the cause(s), the worth of the claim should be evaluated by trying to quantify the delays and losses resulting from the cause(s). In many situations, as illustrated in Figure 2, one 'effect' may prove to be 'cause' for the subsequent 'effect' (Iyer, Chaphalkar and Joshi 2008).

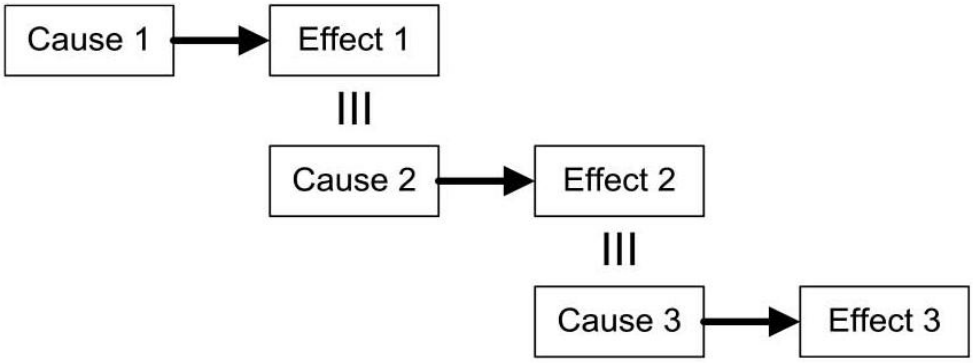

Figure 2: Cause and Effect relationship of disputes (Iyer 2008)

Complex and difficult contract forms may cause an increase in the number and frequency of claims and disputes. It is important for contract administrators to understand and evaluate the worth of their claims prior to resorting to litigation. Claims can have several detrimental effects on a project. In addition to the costly and time-consuming process of their resolution, claims might cause an adversarial relationship to develop between the involved project participants, whose image could be tarnished during the process.

2.2.5. Delay and Cost Analysis

It is the responsibility of the Contractor to substantiate, defend, and prove the validity of any claim presented by him. A Contractor can claim for an extension of the delivery dates initially agreed to in the contract, for extra costs incurred, or a combination of these two interrelated categories. Several quantification methods to substantiate and analyze time and cost overruns on construction projects are used by both parties submitting and resolving the claim (Abdul-Malak, Saadi, and Abou-Zeid 2002).

Examining the incidents that caused delay to a certain project in order to determine the financial accountabilities of the parties involved is known as delay analysis. As such, a detailed schedule analysis is needed in order to inspect the events that have caused the project to overrun. Delay analysis methods are used to identify the components of delay and studying the overall impacts on other activities and the overall project schedule. These methods include: as-planned vs. as-built, impacted as-planned, collapsed as-built, window analysis, and time impact analysis (Ndekugri, Smith, and Hughes 2007).

These differing techniques use various programming information sources. As such, the suitability of a method is related to the availability and accuracy of the project records at hand. Various programming software for analyzing delays are characterized by different aptitudes and functionalities, which is why the claimants and defendants may in some cases arrive at different delay claim results (if different methods were used). This difference in results and opinion could make it more difficult for the parties to settle the dispute amicably. As such, and in order to ensure more reliable delay analysis results, it is important for the disputing parties to agree on a common technique for analyzing the delays.

The cost-estimation process is a multi-stage, lengthy process. Where cost overruns are concerned, additional expenses incurred can be divided into two categories: direct and indirect costs. While direct costs are easy to quantify, indirect costs are not so easily quantifiable. When substantiating claims, increased labor costs, increased equipment and material costs, increased financing costs, and increased overhead costs are all accounted for (directly and indirectly) by the estimation of the costs of work items based on information presented in the bidding documents (Abdul-Malak, Saadi, and Abou-Zeid 2002).

2.2.6. Avoiding/Minimizing Claims

Avoiding and minimizing claims can be achieved in many ways, and this must be addressed from the onset of the project. The various provisions included in the contract must allow for realistic expectations for the project. According to Cheeks (2003), dispute avoidance and loss prevention is a mutual attitude and effort among parties to work together in an attempt to minimize claims, complete the project on time and within budget, prevent disputes, and resolve them in a timely manner if and when they occur. Accurate contract language and appropriate alternative dispute resolution methods should be included in the contract, as this allows the project to "start right". "Staying right" can be achieved by solving disputes in a timely manner, before resorting to arbitration and litigation. While the people involved in the project do not cause disputes, the quality of people can greatly impact these disputes. Disagreements on projects issues are settled by people, which is why the various project participants play a direct role in facilitating or hindering the process of settling disputes. Good communication and interpersonal skills, as

well as capable management and ideal responsibility structures are all factors that influence project success (Diekmann and Girard 1995).

2.3. Claims/Disputes Administration Process

Project participants are becoming more concerned about claims and disputes and more aware of their costly and lengthy resolution process. This is why it is very important to properly track and manage claims that may arise on construction projects. Better administration of these claims/disputes can allow for a better chance at resolving them more successfully. The entitlement of any claim depends on the specific terms of the contract governing the execution of the given project. In order to increase the chances of success of the claim, Contractors must meticulously follow the steps stipulated in these conditions. Providing timely notice in writing is essential to the success of a construction claim (FIDIC 1999). The notice should include: details of the disputed item or issue, the circumstances which gave rise to the claim, and what a party is claiming for. In addition, an analysis of the alleged additional costs and time along with necessary documentation should be presented. Owners, on the other hand, should follow an all-inclusive procedure for tracking and managing the claim(s) submitted by Contractors (Zaneldin 2006). In the following part, the 1999 FIDIC conditions of contract shall be reviewed.

2.3.1. Filing for a Claim

The 1999 FIDIC conditions of contract states that *"If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment […] then the Contractor shall give notice to the Engineer, describing the event or*

circumstance giving rise to the claim." When submitting a claim, the Contractor must closely follow the steps dictated in the contract conditions. The additional costs and/or time being claimed for should be sufficiently documented and accounted for. After a claim-triggering event has occurred, it is the Contractor's responsibility to carefully analyze the situation and consider the various options at hand. In some cases, maintaining a good relationship with the owner could be of more importance to the Contractor than filing for the claim, especially when the issue can be handled informally (Abdul-Malak, Saadi, and Abou-Zeid 2002).

If the Contractor decides to go ahead and submit the claim, he must give notice to the Engineer, mentioning the circumstance or occurrence that gave rise to the claim. This notification is to clearly state the contract clause(s) by which the time or cost compensation is requested, and must be given *"as soon as practicable, and not later than 28 days after the Contractor became aware or should have become aware of the event or circumstance"* (FIDIC 1999). If the Contractor does not submit this aforementioned notification within due time, he risks losing his right to claim any time and/or money under the contract. Next, the Contractor substantiates the claim case by preparing and submitting to the Engineer a detailed claim with the needed supporting particulars within 42 days (of becoming aware of the event giving rise to the claim), as per Sub-Clause 20.1. Contractors must establish and maintain a good record-keeping system that documents job progress and problems as they occur. This will allow them to quantify and validate claims from a position of strength (Jergeas and Hartman 1994). As described by Owen (2003), the sequence of procedures for the submission of claims as stated in several clauses of the 1999 FIDIC conditions of contract can be summarized as follows:

1. The Contractor reports that he is aware of a situation that may involve potential problems that might entitle him to additional time and/or payment.
2. The Contractor gives notice when he actually suffers delay or additional costs.
3. The Contractor keeps contemporary records.
4. The Contractor submits his fully detailed claim with supporting particulars.
5. The Engineer responds to approve or disapprove the claim.
6. The Engineer proceeds in accordance with clause 3.5 to determine any extension of time or additional payments.
7. If the Contractor does not agree with the Engineer the claim becomes a dispute.

2.3.2. Engineer's Determination

After a claim has been presented, it is the Engineer's role (as per Sub-Clause 3.5) to consult with both Parties involved in the conflict (Owner and Contractor) to try and reach an agreement. If the agreement of both parties cannot be achieved within a reasonable time, the Engineer shall then "make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances" (FIDIC 1999). In accordance with clause 1.3, determinations shall be in writing and not be unreasonably withheld or delayed. The Engineer is then required to notify both parties of his determination, which is binding until and unless it is revised under the dispute procedure mentioned in clause 20. In practice, the Engineer may first express an interim determination, and revise it after further particulars have been submitted (Owen 2003).

Different standards and general conditions express different roles and responsibilities for the Engineer. It is important to distinguish when and how the design

professional's determination of a dispute is to be considered final and binding, and this depends on the contract conditions. For example, the AIA and EJCDC specify the Engineer's decisions to be "initial and appealable to an arbitrator under the dispute resolution provisions set forth in the contract. However, if the Owner or Contractor does not timely appeal the decision, it is final and binding on the other parties" (Stein and Hiss 2003). If a party is not satisfied with the Engineer's final decision, they (either the Owner or the Contractor) can contest the design professional's conclusion and seek relief through binding adjudication (Cheeks 2003).

2.3.3. Claim Evolving into a Dispute

After a claim has been notified, detailed, and submitted, consultation discussions and various attempts at reaching an agreement on the matter are to take place. At this point in time, the matter at hand is still considered a claim, and has not yet evolved into a dispute. Figure 3 illustrates the different stages at which a claim concerning a certain issue is considered to be in dispute:

1. When a party declines to participate in discussions to reach agreement.
2. When so little progress is being achieved during prolonged discussions that it has become evident that an agreement will not be reached.
3. When discussions have been terminated without agreement.
4. After a final determination has been rejected.

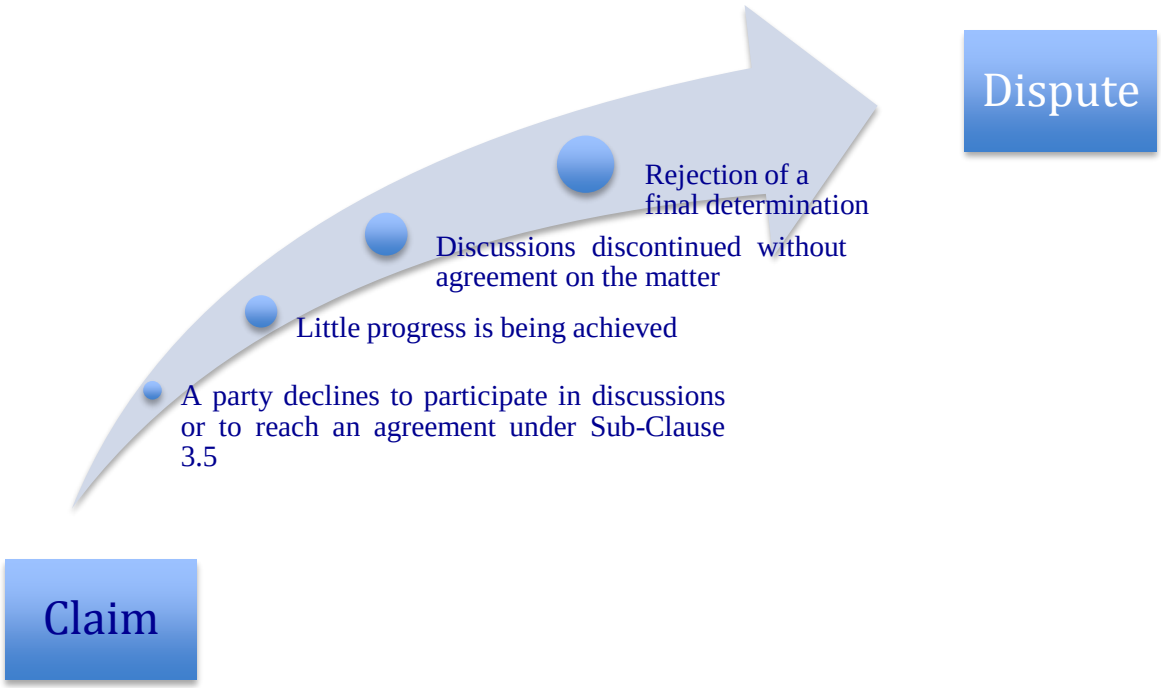

Figure 3: Claim escalating into a Dispute

The fulfillment of one or more of these factors renders a claim into a dispute (Booen 2000). Although no formal notice of dispute is required, no matter can be referred to the DAB unless it is considered to be in dispute. After the Engineer has given a final determination under Sub-Clause 3.5, and in case this determination has been rejected by either of the parties involved, the matter can then be referred to a DAB for a decision. Clause 20.4 states that a dispute as to any certification, determination, instruction, opinion, or valuation of the Engineer in connection with or arising out of the contract can be referred to the DAB (Owen 2003).

2.4. Dispute Resolution

Construction can result in disputes due to a number of reasons such as poorly prepared contracts, the complexity and amount of work, inadequate planning, and communication problems, among many other outcomes (Cheung and Pang 2013). The many dynamic parts in a complex construction project render it nearly impossible to predict all possible contingencies for that project. A dispute is often regarded as a form of conflict that is made public, so it involves arbitration or litigation and requires resolution (Brown and Marriott 1993). One of the areas within the construction industry that needs improvement is dispute resolution. The FIDIC conditions of contract contain, under several different clauses, requirements for the submission, consideration, and resolution of claims and disputes. The intricate nature of construction disputes, in addition to the limited resources available can make the resolution of these disputes a challenging task (Haugen 2014). The duration of a dispute is affected by several factors such as the number of disputants, the issue being disputed, and the dispute resolution method followed. Dispute resolution methods are many and vary from the traditional to the multi-step methods.

2.4.1. Traditional Claim-Dispute Resolution Process

The contract conditions specify in their clauses steps to follow for the resolution of disputes that arise over the course of the project. Traditionally, the Owner is required to pay the Contractor for the completed work, and the Engineer is required to supervise and approve this work. Under this approach, and if any change is proposed and/or claim is presented, the Engineer is the entity responsible for judging/determining whether this request is valid. If a party is not satisfied with the Engineer's determination, it can call upon

a decision concerning the dispute. It is then the Engineer's responsibility to issue a decision that, if not contested, becomes binding on both parties. In case one of the parties is not satisfied with this decision, they can express their intention of going to arbitration (Cheeks 2003). Hence, this traditional claim-dispute resolution process involves two primary entities, the Engineer and Arbitrator, who are responsible for judging the claims presented in a fair and impartial manner.

2.4.2. Role of the Engineer in Dispute Resolution

During the development of a construction project, the Architect/Engineer performs three different duties. The first duty requires the A/E to act in the capacity of a design professional, whereby s/he is responsible for producing design drawings, specifications, and cost estimates for the project in accordance with the client's requirements and scope. The second duty requires the A/E to act as the client representative. In this capacity, s/he is expected to supervise construction work, certify payments, and monitor quality and safety. In addition to performing the aforementioned duties, the A/E is also responsible for making fair determinations and decisions when acting as a "judge" of disputes (Stein and Hiss 2003). This duty entails the A/E to objectively judge disputes between the owner and contractor and render a "quasi-binding" decision. If either of the involved parties is dissatisfied with this decision, they have the right to seek arbitration.

As listed in clause 1.1.2.6, the Engineer is included in the schedule of Employer's Personnel, which is why s/he is regarded to act for the Employer. However, under clause 3.5, the Engineer is expected to be fair when asked to make a determination. When performing this "quasi-judicial" role and rendering a determination or decision, the A/E is

often faced with a conflict-of-interest, as s/he is expected to act as an impartial and fair judge, and not as the client representative or designer. The roles of 'client representative' and 'judge on disputes' that are both expected of the A/E are often described as being in conflict and jeopardizing the neutrality of the determinations and decisions rendered under this capacity. These conflicting roles are illustrated in Figure 4 below:

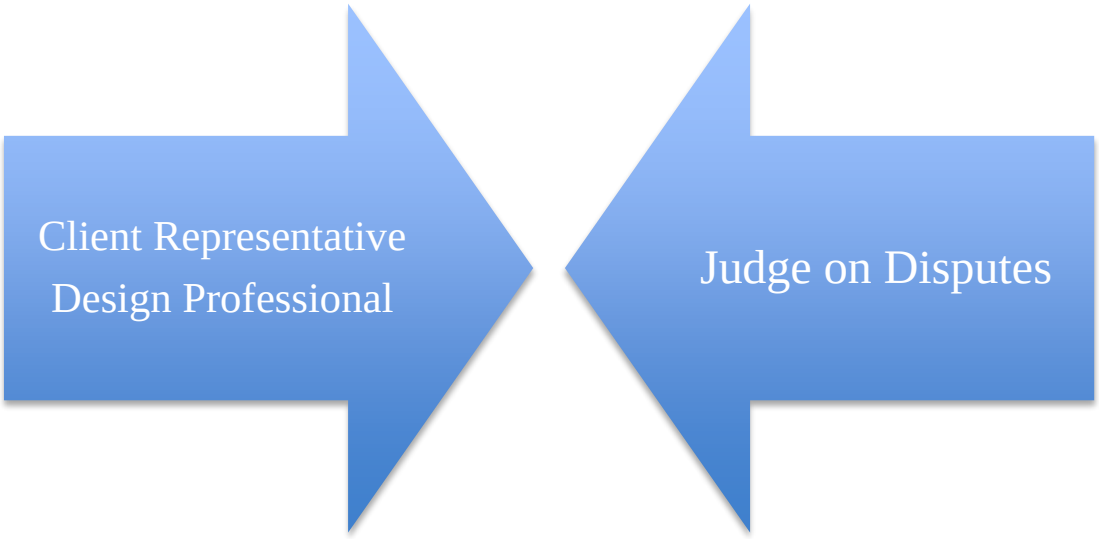

Figure 4: Conflicting roles expected of the Engineer

The interests of the A/E are often labeled as being with the owner. This is namely due to the fact that the A/E is hired and paid by the owner, and could be concerned in being hired again (by the same owner) on future projects (Seifert 2005). Another conflict of interest is presented when the Engineer is expected to play both roles of 'designer' and 'judge on disputes', seeing as some disputes emerge as a result of defective and/or

inadequate design. The Engineer is expected to judge fairly, even when such judgment means admitting to errors on his/her behalf. As a result of the duality in the various roles expected of the Engineer, practical changes have been introduced to the 1999 FIDIC conditions of contract. The role played by the A/E as judge on disputes has been modified in several ways. A distinction between acting impartially and making fair determinations has been made. Furthermore, in addition to the owner, contractor, and Engineer, a party that plays an important role in the dispute resolution process, the Dispute Adjudication Board, has been introduced. Prior to the introduction of the DAB, a party dissatisfied with the Engineer's determination had the option of calling for an Engineer's (binding) decision. In case this decision was protested, the parties would then resort to arbitration to solve the dispute at hand. The new FIDIC conditions allow the dissatisfied party to refer the matter to the DAB for either a determination or decision. This change diffused the role of the Engineer as adjudicator, and allowed for a new party to judge the dispute without a conflict of interest.

2.4.3. Multi-step Claim-Dispute Resolution Process

In addition to the traditional approach to dispute resolution, methods such as dispute resolution boards (DRB), settlement masters, early neutral evaluation, negotiation, mediation, conciliation, and mini-trial have facilitated the development of a multi-step approach to dispute resolution (Cheeks 2003). This range of options for dispute avoidance and resolution has proven helpful in solving conflicts before the parties finally resort to the lengthy and costly processes of arbitration and litigation. Creating an atmosphere that will be effective for the resolution process is the first step of preventing or resolving a conflict.

In an industry where cost and time are fundamentally related, it is desirable to resolve disputes before they lead to further project delay. Maintaining a constant relationship among parties plays an important role in effective business management. The various strategies of this multi-step approach are a more amicable alternative to either arbitration or litigation in resolving disputes, as they push the resolution closer to the events and people involved directly with the dispute.

2.5. Alternative Dispute Resolution Methods

Resolving disputes is a part of the daily activities of construction professionals. Construction disputes have both technical and legal dimensions. Alternative Dispute Resolution (ADR) are techniques used in an attempt to reach a negotiated resolution of a dispute. ADR allows for parties to settle their disputes quickly and painlessly, with or without the help of a third-party. Owing to the high cost (in terms of time and money) of resolving disputes in court, the construction industry is leaning more towards the use of ADR methods. Such methods rely on early loss prevention efforts and dispute avoidance, and they enjoy a number of advantages over litigation and binding arbitration: informal atmosphere, easier communication, less cost and time, maintaining a working relationship among parties, confidentiality of proceedings, and nonbinding decision (Abdul-Malak, Saadi, and Abou-Zeid 2002). Depending on the contract conditions and the needs of the project participants, several methods can be adopted in dealing with disputes.

2.5.1. Negotiation

Solving a construction dispute typically starts with partnering or negotiating between the project stakeholders. Partnering serves as a process of team building and mutual goal setting that promotes creative problem solving and conflict management strategies (Agree 2010). Negotiation is a process by which parties attempt to reach a mutually satisfactory agreement through informal and unstructured discussions. It is one of the most common forms of dispute resolution, and is voluntary and nonbinding. A survey on the most common dispute resolution methods for the construction industry reported that more than 70% of disputes were resolved using negotiation (Tam 1998). In the process of negotiation, the parties remain in control of the outcome; no result is imposed on them. A third neutral party is not usually present.

The scope of a negotiation depends on the choice of the parties. It is up to them to determine whether they will adopt a positional-based bargaining approach or an interest-based approach. Negotiation is less confrontational than litigation and helps restore, preserve or strengthen the parties' relationship. In addition, this process is not bound by any legal procedures, thus allowing the disputants freedom in the discussions. If, however, this process fails to result in an agreement between the parties involved, the disputants can seek consultation from a third-party neutral (Haugen 2014).

2.5.2. Facilitation

Facilitation is a method of Alternative Dispute Resolution that is centered at finding new solutions and resolving difficulties, thus helping the parties accomplish their goals. A facilitator is a third-party who has strong knowledge and skills regarding group

dynamics and processes and works with both parties to help them have a conversation, and try to come to an agreement. The facilitator is regarded as a neutral and trusted outside voice whose role is to interact with and guide the parties through the discussions, resolve communication problems, and encourage the active participation of the parties. Throughout this process, the facilitator applies decision making and problem solving techniques and maintains focus on the meeting goals and key issues. The facilitator is appointed by the parties, and can be someone that the parties both respect and consider capable of assisting them in reaching a resolution. S/he usually works with all the participants at once, puts into place a meeting with problem-solving steps, and directs the group towards an efficient procedure that will move them closer to a jointly agreed upon goal. Throughout this process, the facilitator remains impartial to the matters under discussion, and focuses on the procedural assistance (ADR Resources).

2.5.3. Conciliation

Conciliation is a process that involves a neutral third-party to communicate with the parties in the exchange of information and settlement options. A conciliator attempts to resolve the differences between the parties by lowering tensions, improving communications, and encouraging the parties to explore potential solutions. In situations where the disputing parties are rooted to their respective views, conciliation has been found to be an influential and decisive method in obtaining a settlement. It is important to note that throughout this process, the conciliator meets with each of the parties separately, and usually has no authority to request evidence, call forth witnesses, or render a binding decision. The conciliator does not have the capacity to impose a solution on the parties, but

s/he can be asked to offer a recommendation as to how the dispute should be settled. Such a recommendation is neither final nor binding, but could serve to persuade the parties to agree to a settlement (Maconlaw 2011). The impartiality, independence, and professional experience of the conciliator are qualities that help the parties understand each other's intentions and requirements.

2.5.4. Mediation

Mediation, a form of "assisted negotiation", is considered a consensual process of resolving conflicts through settlement conferences, wherein an impartial third-party, the "mediator", facilitates negotiations between the disputants (Loulakis and Smith 1992). It is currently the most popular of the different ADR methods, and is conducted privately and confidentially, and usually results in a nonbinding resolution. It takes place after a conflict has escalated into a dispute, prior to proceeding to arbitration, and before relationships between the contractual parties are strained. The mediator attempts to understand the issues and desires of each party, and adopts a strategic approach to facilitate the settlement and reach a win-win agreement, thus bridging the gap between the disputants. Throughout this process, the parties remain in control over the decision to settle and the terms of any settlement, and the mediator has no power to impose a settlement on the parties but rather facilitates the parties' negotiations.

It is important to mention that the success of mediation depends much on the attitude of the disputants as well as the skill of the mediator (Cheung 2010). According to Morgerman (2000), effective mediators should possess knowledge of standards and procedures as well as relevant experience in the construction industry, all of which can help

the mediator establish credibility with contractors, engineer, and owners. The mediator, who sometimes has a legal background or relevant knowledge of the matter of the dispute, should also possess key personal characteristics such as: impartiality, neutrality, moderation, and good listening and communication skills (Kerr 1988). Additional traits are mentioned by Harmon (2003), and include:

- Disclosure of any relation or ties with the involved parties.
- Ethical and professional conduct.
- Innovative and good problem solving skills.
- Patience and perseverance.

Mediation is a more economical, faster, and more amicable alternative than either arbitration or litigation. Such methods as mediation and dispute advisors are considered more flexible than others, as they allow the affected parties to exercise some degree of control over the contents of the proceedings to better meet their needs. Because of the complex nature of construction disputes, having a flexible dispute resolution process is seen as important element to reaching a satisfactory result.

2.5.5. Med-Arb

Although matters in dispute may be settled throughout arbitral proceedings, hybrid procedures have surfaced that promote efficiency and early amicable settlements of the disputes at hand. Med-Arb is a relatively recent method used by parties that are attempting to resolve their disagreements. This hybrid dispute resolution process allows for the nomination of a mediator responsible for facilitating a settlement between the parties.

When mediation doesn't yield a fruitful outcome, arbitration proceedings are initiated and the parties choose the mediator as an arbitrator. Mediation negotiations should be conducted and concluded impartially. Similarly, the subsequent arbitration must also be attempted on a without-prejudice basis. If and when mediation is successful and a settlement is achieved, the parties are required to sign a settlement agreement. The mediator may, with the consent of the parties, convert the settlement into a binding arbitral award (Panov and Petit 2015). When using this type of dispute resolution, the parties must be aware of a few restraints:

- If no agreement is reached, the mediator/arbitrator will be responsible for making a binding and enforceable award.
- The mediator/arbitrator should not express any final opinion until all the verifications and arguments have been brought forward.
- If the mediation process doesn't result in an agreement, arbitration is then to be initiated, and each party is allowed the chance to present its case.
- The switch from mediation to arbitration shall be clearly indicated, as will the timing and process for presenting evidence and arguments.

Med-Arb gives the quarreling parties the opportunity to resolve a dispute on their own terms first by mediation, in addition to providing them with the assurance that their dispute will be resolved through arbitration if mediation fails to result in a settlement. When the mediator assumes the role of arbitrator, significant time and cost can be spared, seeing as this neutral party will already have an understanding of the main matters to be

resolved between the parties. Despite these advantages, the structured process of med-arb is sometimes criticized, and some views still argue that both mediation and arbitration processes should be kept separate. Some observations imply that parties might not always feel comfortable in disclosure of confidential information to the mediator/arbitrator; for fear that such information might be held against them if the process progresses into arbitration.

2.5.6. Mini-Trial

"Mini-Trial" is a practice that often employs mediation. It involves an individual, usually a retired judge, who is responsible for overseeing the proceedings. This technique offers an alternative to the time-consuming traditional litigation procedures. The mini-trial does not result in a formal adjudication but is a method for the parties to reach a solution through a structured settlement process (Knight 1988). It is used most effectively when complex issues are at stake and the parties need or wish to maintain an amicable relationship. After signing a consensual agreement, each of the parties then chooses a representative, usually a technical or legal expert, who has the authority to negotiate a settlement. The parties also jointly choose a "neutral advisor" to sit on the panel. The two parties, who each also pay for their own mini-trial costs, equally share the advisor's fees. Both parties involved in the dispute have the chance to present their arguments and file legal briefs and exhibits, a step that is known as "information exchange". At this stage, each party makes a presentation, and is entitled to make a rebuttal, during which the neutral advisor acts as a moderator.

The disputants, with the help of their legal, technical and other experts and representatives, work towards reaching a settlement. Strengths and weaknesses might have

been revealed during the information exchange stage, which might motivate the representatives to settle the dispute. If the parties cannot reach a mutual agreement on their own, they may ask the advisor to give an oral opinion on the issues and the likely outcome if the case proceeds to court. They may also request the advisor to issue a written opinion and to mediate the negotiations and settlements. The advisor may end up assuming the role of arbitrator, thus rendering a decision to resolve the dispute (Kerr 1988). If and when the parties reach an agreement, it is set out in writing and signed by the representatives, thus becoming legally binding on them. When applied to the right case and by parties who genuinely want to resolve their dispute, the mini-trial can produce effective results.

2.5.7. Dispute Adjudication Board

A third and common form of alternative dispute resolution is dispute adjudication board (DAB). The DAB is a panel of technical experts who are jointly appointed by the parties before the Contractor commences the works, and who are inherently familiar with the project's construction contract and progress (Seifert 2005). The DAB studies the dispute that is referred to it and serves two primary functions: it gives opinions and renders decisions. Resorting to a DAB is an intermediate step that follows the Engineer's determination and precedes going to arbitration. According to the FIDIC conditions of contract, the DAB's "decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award". If the dispute is subsequently referred to arbitration, the DAB will have facilitated a refinement of the dispute so that the issues are more concise when they reach arbitration. As such, the FIDIC conditions of contract changed their primary means of dispute

resolution to utilize DAB prior to arbitration. Such disputes are allowed to proceed to arbitration only after a 56-day period has passed. This time period allows the parties to attempt to resolve the dispute amicably, make compromises that help them identify a solution that is acceptable to both of them, and could include a variety of ADR procedures, such as the ones mentioned above.

2.5.7.1. Formation of the DAB

At the onset of the project, and when the tender documentation is being prepared, guidelines for the dispute resolution process are mentioned. The 1999 FIDIC conditions of contract describes both "full-term" and "ad-hoc" dispute adjudication boards and their responsibilities. The formation of a DAB encourages the resolution of disputes while construction is still in progress. Both Owner and Contractor participate in the selection of the DAB members. A DAB usually comprises of one or three properly qualified members. In the case where the DAB is comprised of three members, each of the contractor and owner shall nominate one member, and the third member is agreed on by both parties, and shall act as the chairman. In some cases, on large complex projects, the panel may consist of 5 persons of whom any 3, selected by the chairman, will sit at any time on a particular dispute (Owen 2003). The fees of the DAB members, as well as any expert they might need to consult, are to be covered equally between the owner and contractor (FIDIC 1999). Parties may agree to jointly refer a matter to the DAB for an opinion; however, it is not allowed for one party to consult the DAB on any matter without the consent of the other party. In the case where one or more of the appointed members declines to act or is unable

to act as a result of death, disability, resignation, or termination of appointment, s/he can be replaced.

2.5.7.2. Full-Term DAB vs. Ad-Hoc DAB

It is important to distinguish between full-term and ad-hoc dispute adjudication boards. While a full-term DAB is mutually selected at the onset of the project and before the commencement of the works, an ad-hoc DAB is called upon within 28 days after a notice of dissatisfaction has been given, and a dispute is to be referred to a DAB for its decision. A full-term DAB, as opposed to an ad-hoc one, performs regular site visits and is continually informed about the progression of the works. Being selected on a claim basis only puts an ad-hoc DAB at a disadvantage of being less knowledgeable about the project. It is better to involve a full-term DAB rather than an ad-hoc DAB due to the advantage of the DAB's early awareness of the project occurrences. The full-term panel remains in post until the completion of the project, whereas the appointment of the ad-hoc panel expires after giving its decision concerning the dispute(s) at hand. A full-term DAB can be called upon for both opinion and decision, and the role of the Engineer as judge of dispute in this case is restricted. On the other hand, when an ad-hoc DAB is involved in dispute resolution, an Engineer's decision can be called upon. In case where no full-term panel is on board, using the combination of the Engineer and Ad-hoc DAB decision is recommended. When the claims are directly related to the Engineer's actions, asking for a decision from the ad-hoc DAB (instead of the Engineer) can generate a more neutral decision. Figure 5 illustrates a comparison between the Full-term and AD-hoc DAB. If and when discussions or meetings are hindered, the parties should reach an agreement on referring the matter to a

DAB for opinion. If no full-term DAB is on board, it is recommended to involve a third-party to assist with negotiations.

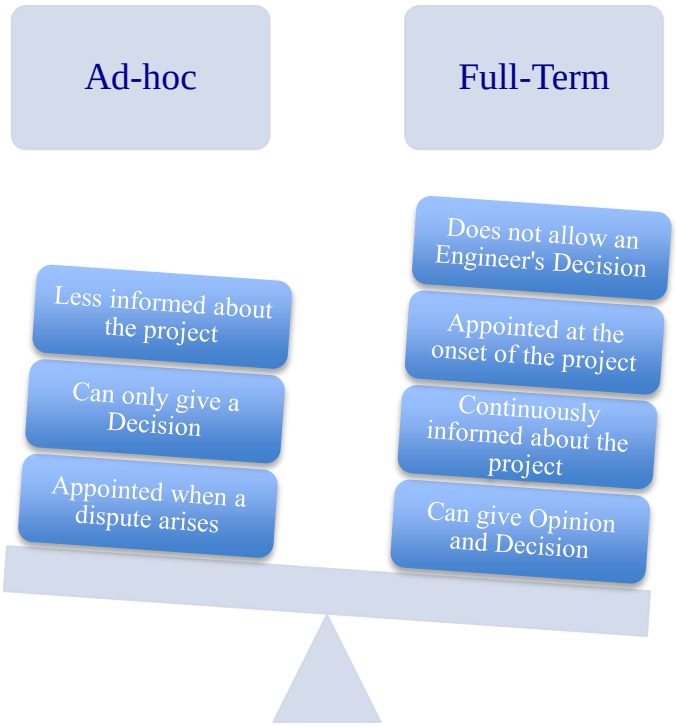

Figure 5: Comparison between Full-Term DAB and Ad-Hoc DAB

2.5.7.3. Duties of the DAB

The DAB plays a major role in the resolution of disputes. If after referring a given dispute to the DAB any of the parties subsequently refers it on to arbitration, this dispute will not be considered as having been settled. The board is usually formed before the construction begins, and meets at the job site periodically. In order to become familiar with the project and its procedures, the members of the DAB are provided with copies of the

contract documents, plans and specifications, and are given a project briefing which allows them to become acquainted with the nature of the work and contractor's plans and proposals for executing it (Owen 2003). It is the responsibility of the DAB to always be aware of the work progress and any potential disputes that may arise, which is why regular site visits (at least three times every twelve month interval) as well as meetings with the employer and contractor should be conducted (Seifert 2005). When requested to do so by the Owner and/or Contractor, the DAB shall be available for meetings, visits, and hearings within 28 days. The main duties of the DAB can be summarized as such:

- To conduct regular site visits and become familiar with the project details.
- To stay updated and aware of ongoing activities, progress, developments, and potential or current job site problems.
- Give advice or opinions on any matter relevant to the contract.
- Complete deliberations concerning a dispute at hand, and prepare a Decision in a professional and timely manner.

2.5.7.4. DAB Opinion vs. DAB Decision

If and when a disagreement emerges at job level, attempts to resolve it through negotiations are made. A matter is usually referred to a DAB for an opinion before it develops into a dispute, in hope of lowering tension and avoiding its escalation. The DAB opinion, which is the opinion of an independent third-party that is trusted by both contractor and owner, could play an important role in preventing a claim from developing into a dispute, seeing as it serves as a quick reality check. The claiming party could be less

tempted to further seek a claim if there is a vast difference of judgment between the DAB's opinion and its very own regarding the claim. These purposes for requesting a DAB's opinion are shown in Figure 6. The opinion expressed by a DAB concerning a claim is not binding on the parties. A decision pertaining to the same matter could be requested and issued later on. This decision could be different from the opinion previously given by the same DAB, seeing as more time and evidence is allowed for a DAB when requested to give a decision. For a DAB to be able to give an opinion, it should be a full-term DAB, not an ad-hoc DAB.

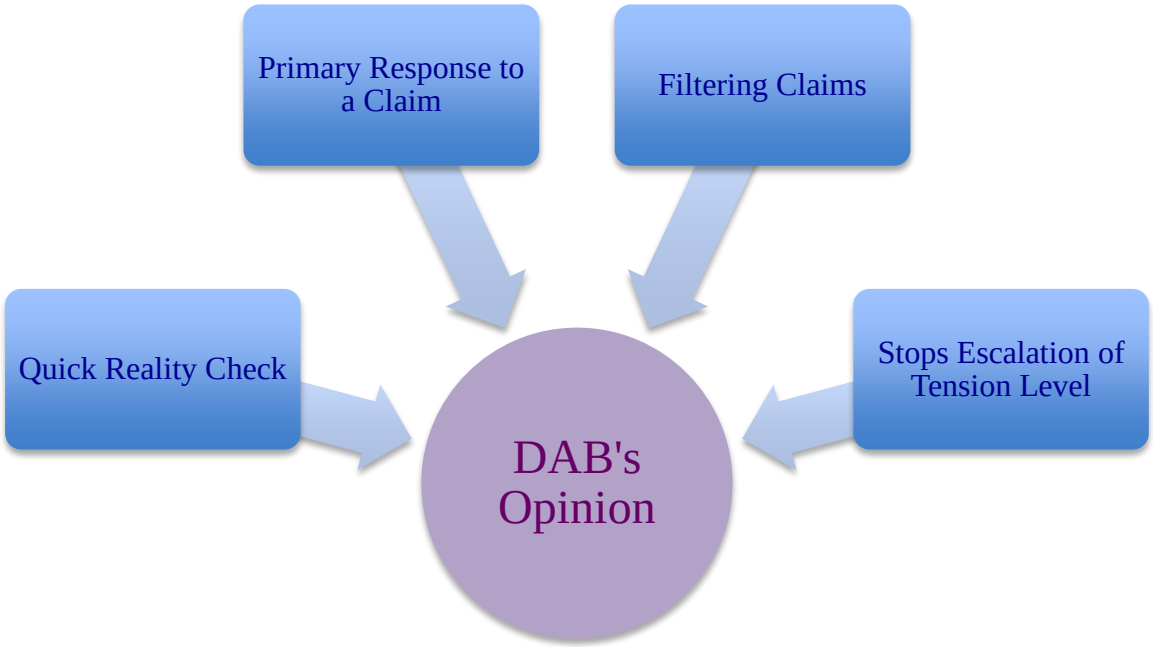

Figure 6: Purposes of a DAB's Opinion

When the parties are unable to resolve a dispute, it is referred to the DAB for a decision. Following an Engineer's determination, and before the matter is referred to arbitration, a dissatisfied party can call for a DAB's decision. According to Sub-clause 20.2, a party on its own is not allowed to request a DAB's opinion without the knowledge and agreement of the other party. However, when requesting a DAB's decision, it is sufficient for the dissatisfied party to refer the matter to the DAB. Written arguments of both sides could be requested by the DAB before or during any hearing. The DAB then has an 84-day period to render its decision regarding the given dispute, and should send a written copy of the decision to both parties. This decision is considered binding unless a notice of dissatisfaction is expressed (by either party) within 28 days (FIDIC 1999). As such, the DAB's decision is considered to be "quasi-binding".

2.6. Arbitration

If the disputing parties fail to resolve the disputes at hand in the aforementioned methods, the next step is to resort to arbitration. Arbitration is, by definition, a procedure for settlement of disputes under which the disputants agree to be bound by the decision of the arbitrator (who is an independent third-party), which is final and legally enforceable. Arbitration is often preferred over litigation for the additional reason that special construction arbitrators are better versed in the technicalities of the construction industry, and are in a better position to understand the issues presented by the disputants. Arbitration is sometimes required in the contract terms, and the guidelines governing its conduct procedures are determined by prior agreement. As described in the previous sections, under the traditional approach to dispute resolution, a party dissatisfied with the Engineer's

decision could opt for arbitration. Similarly, in the multi-step approach, the dissatisfied party could object to the DAB's decision and resort to arbitration. In some cases, the parties mutually agree to resort to arbitration as an alternative to going to court. In arbitration, unlike in litigation, the parties have some degree of control over the choice of the arbitrator or three-person arbitration panel (Gardner 2011).

2.7. Litigation

Litigation is the process of resorting to legal actions to settle disputes. In addition to being a public hearing with public records of the proceedings, litigation involves elaborate formal procedures and can therefore be considered more costly and time consuming than its alternatives (Arditi and Tokdemir 1999). A survey conducted by Bristow and Vasilopoulos (1995) found that litigation costs could be as high as or higher than the amount claimed. This process allows the disputing parties enough time to assess the situation at hand and prepare the cases to be presented in court. However, the increasing legal fees and the long trial periods, in addition to the contractor's desire to maintain good relations with the owner, have rendered litigation a less desirable option. As an alternative, binding arbitration is considered as a cheaper and faster option in the resolution of claims. Throughout this process, attempts at settling the case before trial can be made. Such settlement efforts can either be imposed by the court or initiated by disputing parties or their representatives/attorneys. In most cases, such efforts involve nonbinding or "judicial" arbitration or mediation, or "settlement conferences". In case the litigation case is not settled before the appointed trial date, it is then tried before a judge or jury.

The techniques mentioned above are the most commonly used methods of alternative dispute resolution. Negotiation, either primarily or secondarily, plays an important role in each of these methods. Numerous other ADR methods exist that are either modifications or combinations of the aforementioned procedures. For example, many parties resort to negotiations with early neutral evaluation before moving onto nonbinding mediation. The parties should determine the ADR method that will serve them most effectively.

CHAPTER 3

OPPORTUNITIES FOR ACHIEVING AMICABLE SETTLEMENT

3.1. Preamble

The 1987 and 1999 FIDIC conditions of contract specify processes and time bars for the administration and submission of claims, as well as procedures to be followed throughout the resolution of disputes. A comprehensive reading of the Claim/Dispute timelines (as specified in both 1987 and 1999 FIDIC conditions of contract) will be presented, and various conflict management approaches will be organized along the claim/dispute phases. Furthermore, the clauses pertaining to amicable settlement will be clarified, and as such, amicable settlement as a process will be defined, analyzed, and mapped on the respective timelines. The effective length of the amicable settlement period and the various factors affecting the duration of this period will be studied, the windows where amicable settlement may be sought will be identified, and various opportunities where amicable settlement can be attempted will be highlighted.

3.2. Claim Dispute Timeline

Properly tracking and managing claims is crucial to the success of any construction project. Management of construction claims is one of the biggest challenges facing contractors and owners in today's ambivalent business environment (Kululanga et al. 2001). The objective of the various types of dispute resolution mechanisms (traditional or

alternative) is to guarantee the fulfillment of all rights and obligations set out in the contract, in addition to providing reimbursements for any violations of these obligations (Spurin 2003). The FIDIC conditions of contract clearly includes in several of its clauses procedures for the administration and resolution of claims.

This section will examine the Claim and Dispute timelines of both 1987 and 1999 FIDIC conditions of contract, and note the responsibilities of the various parties involved in accordance with these timelines. Several changes between the 1987 and 1999 FIDIC claim-dispute resolution timelines exist. The 1999 conditions of contract replace the Engineer's decision with a DAB decision. Furthermore, a time constraint has been implemented that limits the start and end of the period extending from the contractor's submittal of the claim and particulars to the moment the Engineer issues a determination. These differences will be illustrated in the coming sub-divisions.

3.2.1. Claim Timeline as per 1987 FIDIC

Sub-clause 53.1 of the 1987 FIDIC conditions of contract states that the Contractor is required to give notice to the Engineer "within 28 days after the event giving rise to the claim has first arisen". If the Contractor has kept jobsite records, it should be easy to comply with this notice, as the event mentioned above will probably have been noted in a Site diary. When submitting this written notice of intention to pursue a claim to the Engineer, a copy must also be forwarded to the Employer. The contractor is then required to send an account giving detailed particulars and any supporting evidence of the amount claimed and the grounds upon which the claim is based no later than 28 days after filing the notice of claim (or such other reasonable time as may be agreed by the Engineer).

As such, the contractor has 56 days in total to submit the claim and its corresponding particulars. As mentioned in Sub-clause 44.1, where a claim for an extension of time is concerned, the Engineer is to make his determination after consultation with the Employer and the Contractor. As shown in Figure 7, the Engineer shall respond, at least on the principle of the claim (approving/disapproving). No time restriction for issuing a response/determination regarding the claim is imposed on the Engineer. An Engineer's determination, unlike a Decision, is not legally binding. At this point in the timeline, the Engineer has not yet been asked to act as Judge, and the matter in question is still considered a claim, and not a dispute. Nothing prevents the claiming party from requesting an evaluation from a technical or legal expert concerning its eligibility for such a claim. The objective opinion of the Engineer or third-party might persuade the claiming party to drop further pursuit of the claim. It might also allow the two parties to reach an agreement regarding the extra compensation and/or extension claimed for, thus resolving the matter before it turns into a dispute.

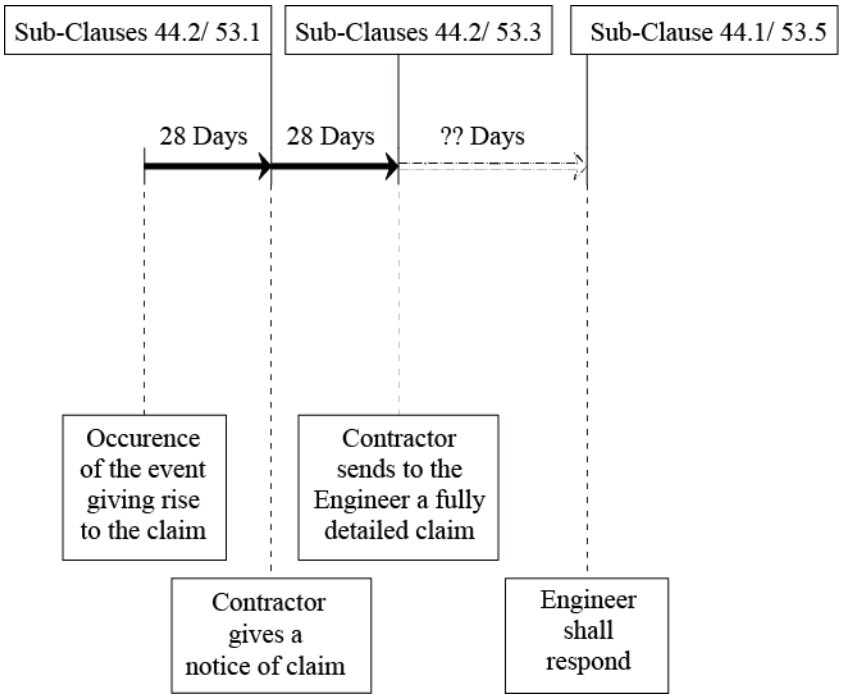

Figure 7: Claim Timeline as per 1987 FIDIC

3.2.2. Dispute Timeline as per 1987 FIDIC

According to the 1987 FIDIC conditions of contract, the dispute resolution mechanism can be divided into three major steps: Engineer's decision, amicable settlement, and arbitration. If after the Engineer has issued his/her determination one of the parties expresses dissatisfaction with it, and the matter is referred back to the A/E for a Decision, it is thus considered to be in dispute. According to Sub-clause 67.1, if a difference of opinion between the Employer and Contractor pertaining to the matter of a claim cannot be clarified to the satisfaction of both parties, the matter is considered in dispute and can be referred by either party to the Engineer for a decision, with a copy to the other party.

At this point in the Claim/Dispute timeline, the A/E is expected to render a decision on the matter no later than 84 days after receiving such a reference. As mentioned before, the A/E is to be impartial when assuming the role of judge on disputes. If either party does not contest the decision given by the Engineer for the settlement of the dispute, it becomes final and binding. Any party dissatisfied with the Engineer's decision has the right to seek arbitration. As shown in Figure 8, a notice of intent to commence arbitration should be given within 70 days from issuance of the Engineer's Decision; otherwise this decision becomes final and binding. It is important to mention that the notice of intention to commence arbitration regarding the matter of the decision must be presented by one party to the other party, with a copy to the Engineer for information. This notice legally establishes the entitlement of the party giving the notice to arbitrate the dispute at hand. However, it does not specify exactly when arbitration is to commence.

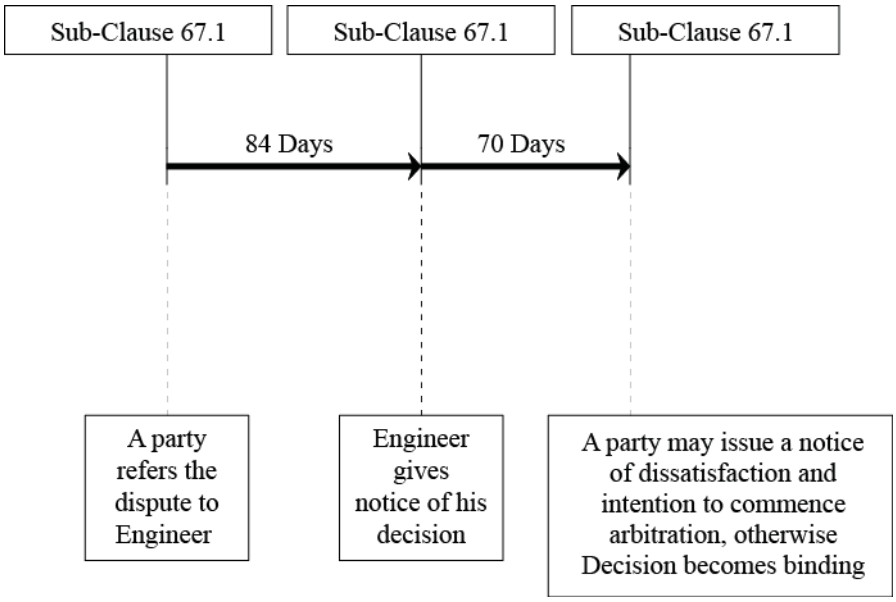

Figure 8: Dispute Timeline as per 1987 FIDIC

3.2.3. Claim Timeline as per 1999 FIDIC

According to the 1999 FIDIC conditions of contract, the Contractor is required to issue a notice of claim not later than 28 days after s/he became aware of or should have become aware of the occurrence of the incident giving rise to the claim. The contractor is given 42 days in total after the event provoking the claim in order to send to the Engineer a fully detailed claim along with the necessary supporting particulars. Sub-Clause 20.1 also states "within 42 days after receiving a claim and any supporting particulars, the Engineer shall respond with approval, or disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time". Thus, it is the A/E's responsibility, under the conditions of the contract, to respond on the basis of the claim, to determine whether the contractor's claim is appropriate, to request the submission of additional particulars in case the given substantiation is deemed incomplete, and to recommend approval or denial of the claim to the owner. Unlike the 1987 FIDIC conditions of contract, the Engineer is now bound by a time limit of 42 days to issue a determination. Figure 9 below illustrates the claim timeline as per the 1999 FIDIC conditions of contract.

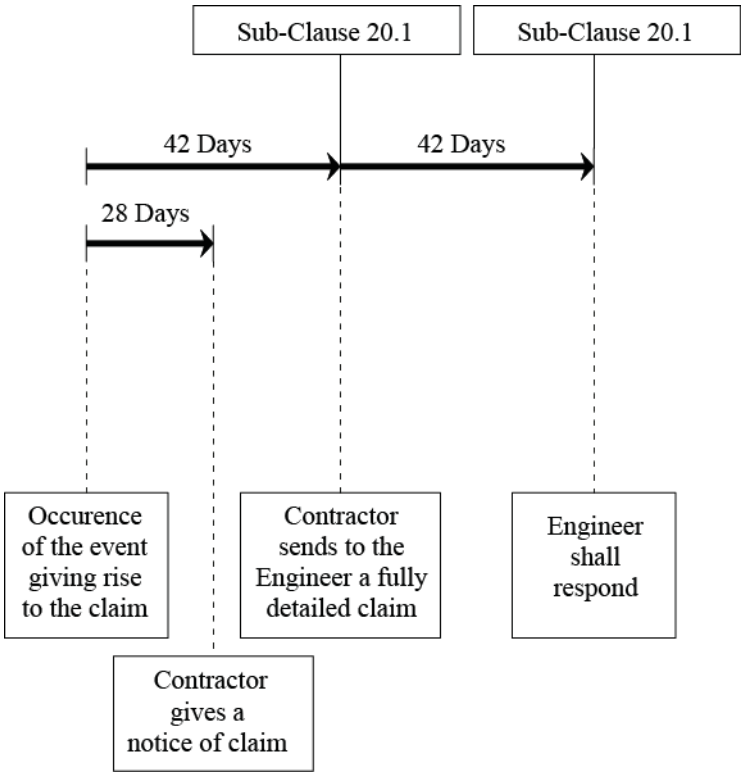

Figure 9: Claim Timeline as per 1999 FIDIC

3.2.4. Dispute Timeline as per 1999 FIDIC

Following the issuance of an Engineer's determination, and if either of the parties is not satisfied with the opinion or valuation of the Engineer, that party may choose to refer the dispute in writing to the DAB for its decision, with copies to the other Party and the Engineer, as per Sub-clause 20.4 (FIDIC 1999). The DAB shall then give its decision within 84 days or any other period proposed by the DAB and approved by both parties. Unlike the 1987 FIDIC conditions of contract, the decision on the matter of the claim is now to be issued by the DAB and not the Engineer, in order to ensure the impartiality and fairness of such a decision. Any party dissatisfied with this decision can choose to give

notice to the other party of its dissatisfaction within 28 days from its issuance, as shown in Figure 10, otherwise this decision becomes final and binding. In the case where the DAB fails to issue a decision in due time, a party may still release a notice of dissatisfaction within 28 days after the expiration of the aforementioned period. Such notice of dissatisfaction shall mention the matter in dispute and the reason(s) for dissatisfaction. If no notice of dissatisfaction and intention to commence arbitration has been issued within 28 days of the DAB decision being made, this decision becomes final and binding upon both parties.

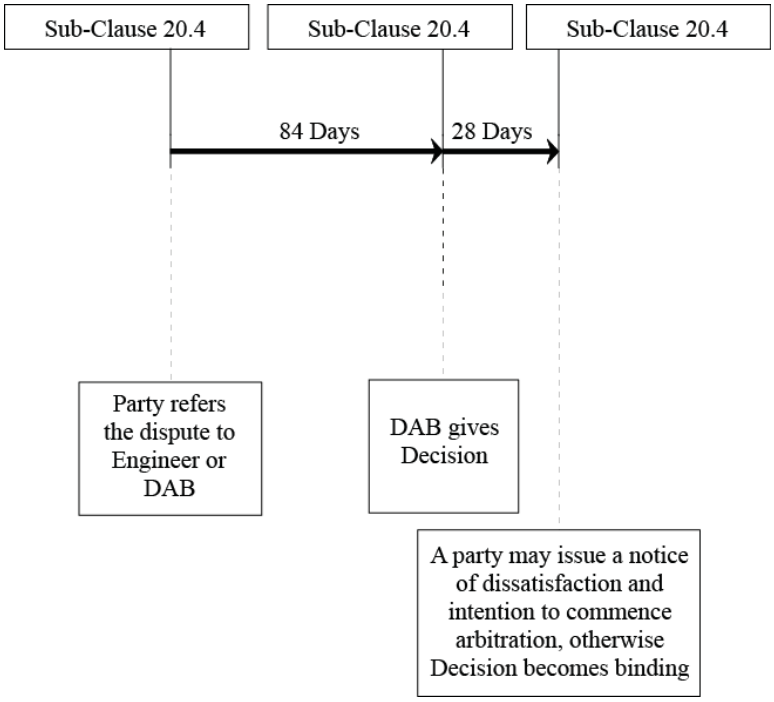

Figure 10: Dispute Timeline as per 1999 FIDIC

3.3. Amicable Settlement

This subsection will demonstrate various instances and points/phases along these timelines where amicable settlement can be attempted, or is required as a precondition to upcoming procedures. Amicable settlement will be clearly defined, and the various opportunities for attempting to solve disputes and successfully reaching agreement will be explored.

3.3.1. Definition

An amicable settlement of a dispute can be defined as a settlement that is reached to the satisfaction of all parties involved. This kind of settlement aims at avoiding the delay and expenses of a court settlement. According to the claim case and project contract conditions, amicable settlement can occur at various points along the dispute timeline. Amicable settlement is also said to be an agreement, and in some cases a compromise, between two litigants to privately settle a claim that is the matter of a current dispute in a court of law before the court has rendered its decision. This depends on the point in the dispute timeline (before/during arbitral proceedings) when the settlement is attempted and achieved. Amicable settlement is mentioned in the FIDIC conditions of contract as a mandatory process, as will be discussed in the coming sections. Furthermore, amicable settlement as a non-adversarial method is now being developed into a formal procedure in many standard forms (Maconlaw 2011).

3.3.2. Amicable Settlement vs. Arbitration or Litigation

Amicable settlement has become an important part of construction contracts and the dispute resolution process. Attempting to resolve disputes through amicable settlement as opposed to arbitration or litigation gives the parties on either end of the dispute the chance to exercise some degree of control over the way their disputes are resolved and administered. They are no longer required to submit to the jurisdiction of local or international courts and comply with time-consuming, and expensive court procedures. Retaining control in the entire dispute process is favored over leaving the fate of both parties and the outcome of the dispute in the hands of a third-party judge. As a result, changes in the manner contracts are formulated have been implemented. Many, including standard forms, require that parties undertake a process of amicable dispute resolution before arbitration proceedings are initiated. As such, amicable settlement is not just a choice, but also a prerequisite to the commencement of arbitration.

Early amicable settlements are, in most cases, the rational preference of both the business and legal counsel. Disputes usually tend to reach arbitration or litigation when negotiations have already failed and one or both parties decide that a more serious measure has to be taken (Panov and Petit 2015). As highlighted in Figure 11, many different factors may motivate a party to settle amicably before resorting to litigation or arbitration. Such incentives include the desire to maintain good relationships with the other party, concerns for the time and cost that might be spent if the dispute is to be settled in court, the weakness of one's own case, concerns about the lack of assets of the opposing party, among others (Panov and Petit 2015).

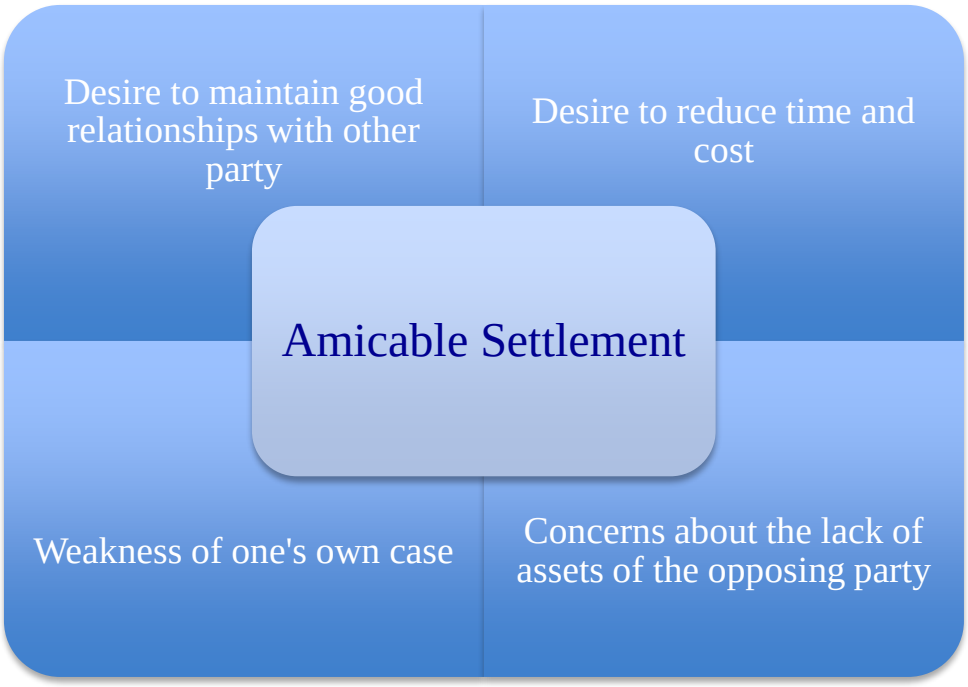

Figure 11: Incentives to settle amicably

Settlement can be attempted and reached before or during the arbitral proceedings. A pre-award settlement is the result of the collaborative efforts of the parties involved in the arbitral hearings to reach a agreement position through the identification of common ground, before the court issues its decision. However, in the case where a party firmly believes that its claim or defense is a strong one and that it may recover the legal costs and expenditures if the dispute is forwarded to a tribunal or court (depending on whether the contract conditions stipulate arbitration or litigation), this might compel the party to continue pursuing the arbitration, and not put much effort into attempting to solve the dispute amicably.

3.3.3. Amicable Settlement Clauses

Both 1987 and 1999 FIDIC conditions of contract contain clauses pertaining to amicable settlement. Resolving a dispute between two parties amicably has advantages over resorting to arbitration or litigation, and as such is the preferred option. Sub-clause 67.2 of the 1987 FIDIC states that:

> *"Where notice of intention to commence arbitration as to a dispute has been given in accordance with Sub-Clause 67.1, arbitration of such dispute shall not be commenced unless an attempt has first been made by the parties to settle such dispute amicably. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after the fifty-sixth day after the day on which notice of intention to commence arbitration of such dispute was given, whether or not any attempt at amicable settlement thereof has been made."*

Similarly, Sub-clause 20.5 of the 1999 FIDIC states that:

> *"Where notice of dissatisfaction has been given under Sub-Clause 20.4, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, arbitration may be commenced on or after the fifty-sixth day after the day on which the notice of dissatisfaction was given, even if no attempt at amicable settlement has been made."*

As such, the fulfillment of this clause's requirements is a condition precedent to the commencement of arbitration. Both Sub-clauses 67.2 and 20.5 allocate a period of time along the dispute timeline during which amicable settlement can be attempted and achieved. In order for the discussions not to be prolonged indefinitely, a time limit has been fixed for these discussions. Although the clauses impose the passage of a 56-day period (typically apportioned for amicable settlement) as a condition precedent to the commencement of arbitration, no party has the power to insist on or force the other party into making an attempt at amicable settlement during this period. The aforementioned clauses do not specify any suggestions or protocol regarding how the process of amicable settlement should be initiated, organized, conducted, documented, and finalized.

Other forms of contract also mention amicable settlement and mediation as a procedure prior to the commencement of arbitration. Article 16 of the EJCDC C-700 2007 edition states that:

> *"If a dispute arises out of, or relates to this Agreement, or the breach thereof, and if said dispute cannot be settled through normal contract negotiations, the Parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory non-binding mediation under the Construction Industry Mediation Rules of the American Arbitration Association before having recourse in a court of law."*

3.3.4. Amicable Settlement Stage

Before pursuing arbitration, the parties are required to allow the elapse of 56 days after a notice of dissatisfaction is given, regardless of whether an attempt to solve the dispute amicably is initiated during these fifty-six days. In many cases, the parties agree to a method for managing amicable settlement long before any dispute arises. This method is usually approved by both the Employer and Contractor, and is often specified at an early stage in the contract. The Particular Conditions of the contract could include clauses pertaining to a special procedure to be followed when a dispute arises. Such procedure could specify how the discussions are to be initiated, what ADR methods to follow, which third-party is to be involved, etc. In accordance with the sub-clauses mentioned above, the amicable settlement phases can be highlighted along the dispute timelines as shown in Figures 12 and 13:

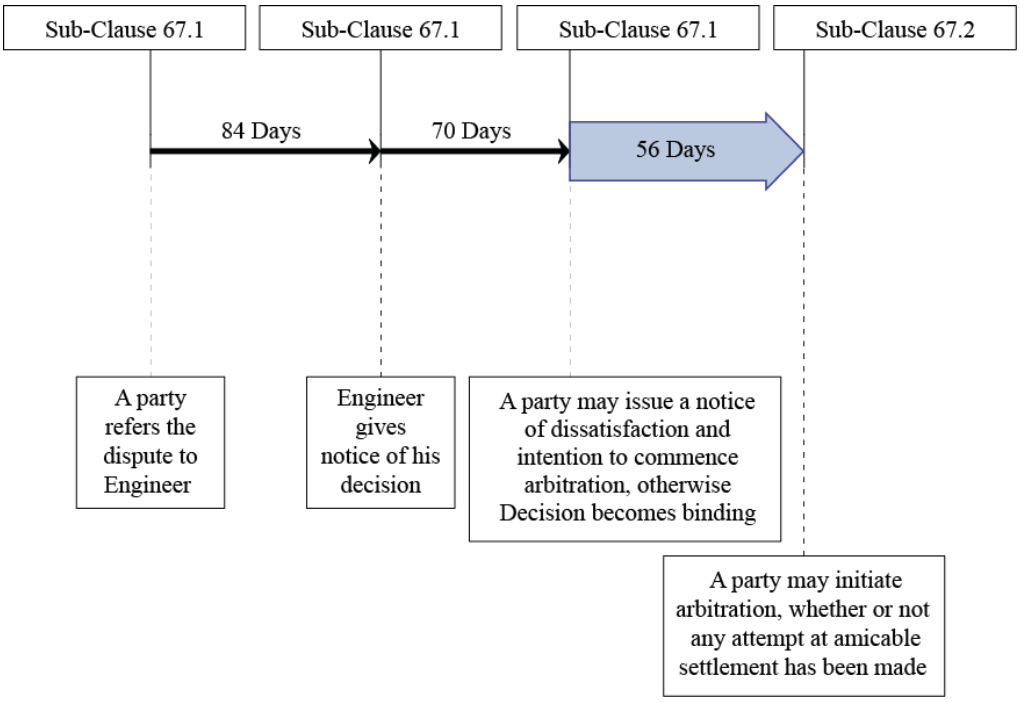

Figure 12: Amicable Settlement along 1987 Dispute Timeline

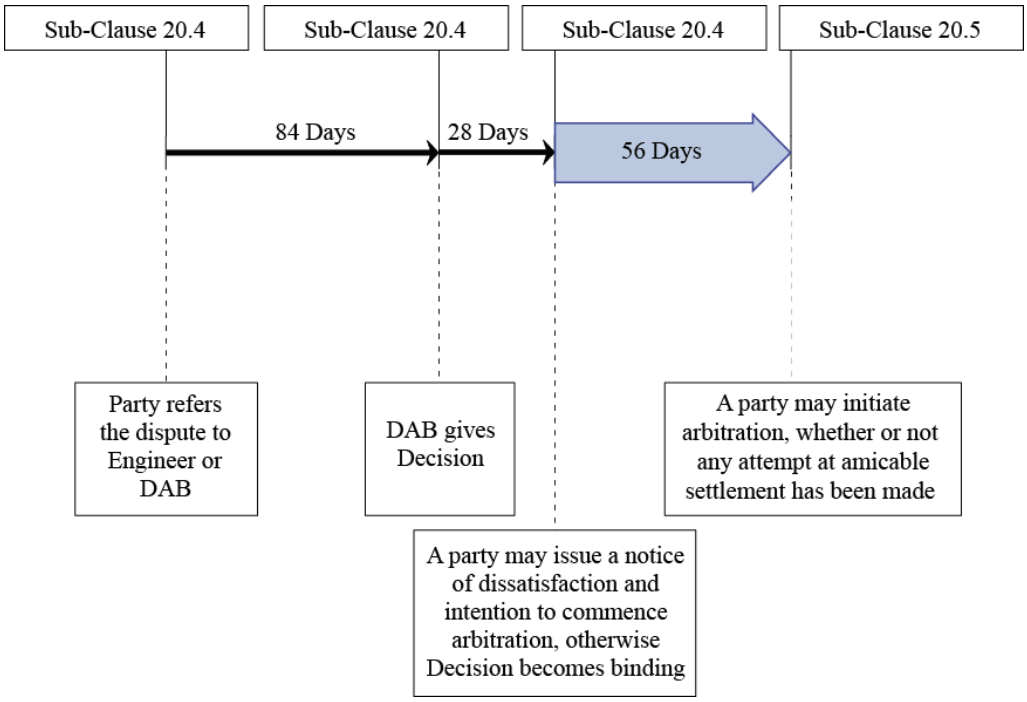

Figure 13: Amicable Settlement along 1999 Dispute Timeline

3.3.5. Objectives of the Amicable Settlement Stage

The main objective of this mandatory period is to allow the disputing parties a chance to settle the matter amicably. Ideally, the parties should reevaluate the process of dispute resolution and assess the reasons why earlier decision stations did not materialize into a resolution. The first such decision station can be considered the consultation between the Engineer, Employer, and Contractor that is to occur prior to the issuance of a determination. When issuing a determination regarding a claim for an extension of time, and as mentioned in Sub-clause 44.1 of the 1987 FIDIC conditions of contract, the Engineer is expected to *"make his determination after consultation with the Employer and the Contractor"*. Similarly, Sub-clause 53.5 of the 1987 FIDIC conditions of contract states that when making a determination regarding payment of claims, "*the Engineer, after due consultation with the Employer and the Contractor, may consider due to the Contractor provided that the Contractor has supplied sufficient particulars to enable the Engineer to determine the amount due."* Sub-clause 3.5 of the 1999 FIDIC conditions of contract also mentions *"the Engineer is to consult with each Party in an endeavor to reach agreement prior to making a determination."* As such, prior to a determination being given, the parties have the chance to discuss the matter of the claim.

Once a Decision has given and one or both parties express their dissatisfaction with it, reasons why the parties failed agree to the Engineer's first determination should be inspected. Did the disputing parties not consider the Engineer's determination seriously, or did the Engineer himself not give an objective determination? This point in the dispute timeline allows both parties to revisit their respective positions and assess their strengths. They might resort to legal advisers regarding their standpoints and chances of winning in

court. Even if a party respects all time bars when filing and submitting the claim, the matter of actual eligibility is still questionable. In many cases, a party can be in a position of denial, and refuse to take part in any settlement attempts, which might lead to a lot of loss if they go to arbitration thinking they have a strong case, when in fact they may not be eligible to all the time or money claimed.

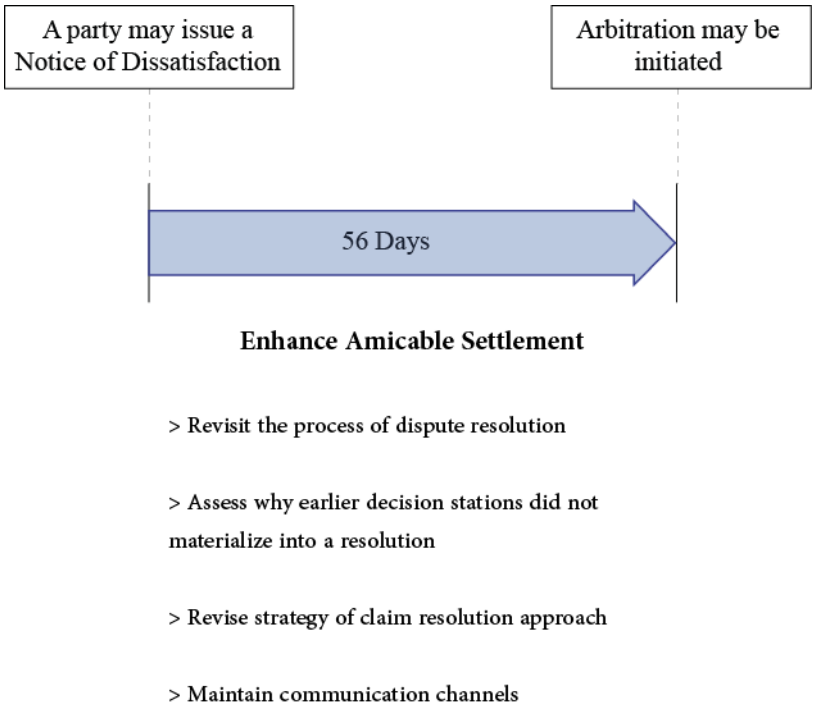

Figure 14: Enhancing Amicable Settlement

Figure 14 above lists some of the practices that may enhance amicable settlement. Making use of the various Alternative Dispute Resolution methods at hand may prove to be very helpful in avoiding arbitration. If the claim resolution strategy adopted so far has proven unsuccessful, other ADR options should be explored. It is important for

communication channels to be maintained throughout this period. Allowing the 56-day period to elapse without any communication could escalate the tension and cause a further rift between the parties. A potential misconception by many disputing parties is that the party to initiate dialogue and communication during this period is seen as having a weak standpoint. Sub-clauses 67.2 and 20.5 do not specify any technique to attempt amicable settlement, nor do they specify who shall initiate such attempts or how the procedure is to be handled and carried out. This could be seen as an advantage insofar it allows the parties more flexibility in the choice of procedure preferred to them. However, such freedom can also be disadvantageous if no effort is exerted by either party to make use of this period.

3.4. Effective Length of Amicable Settlement Period

While the conditions of contract specify a mandatory 56-day period typically allocated for amicable settlement, this period can be construed in several ways, thus resulting in an extension of the actual number of days where resolving the dispute at hand can be attempted. The following section will examine the effective length of the period allowing for amicable settlement, and the various factors and conditions that affect the length of this period.

3.4.1. Issue of Notice of Dissatisfaction

As mentioned before, the disputing parties are allowed a 70-day period (1987 FIDIC) or a 28-day period (1999 FIDIC) following the date when an Engineer's or a DAB's decision is issued to give a notice of dissatisfaction or accept the decision. This is followed by a 56-day period allowing for amicable settlement. The point along the dispute

timeline when the notice of dissatisfaction is actually issued can allow for more or less time to attempt amicable settlement. It can be argued that following the issuance of the Engineer's or DAB's decision, nothing prevents the disputing parties from communicating or discussing the matter of the dispute. The parties are not required to wait until the 56-day period commences in order to start any deliberations.

The 56-day period is triggered when the notice of dissatisfaction is given. If the 28-day or 70-day period for issuing this notice is allowed to be exhausted, meaning that the notice is actually given on the 28^{th} or 70^{th} day, the length of the amicable settlement period can be extended backwards to include these 28 or 70 days. As such, the effective length of this period can be considered to be 84 days (56 + 28) or 126 days (56+70), respectively. If the notice is given directly after the decision is issued, the 28-day or 70-day periods are cut short, and the 56-day period for amicable settlement is consequently triggered earlier, as is illustrated in Figure 15. The time period given for the disputing parties to consider the Decision and entertain accepting or rejecting it can be added to the time allowing for amicable settlement attempts. Indirectly extending the effective period for amicable settlement in such a backward manner, by not rushing the issuance of the notice of dissatisfaction, can be considered advantageous for the disputing parties, as it allows them more time to try and resolve their differences as a last resort prior to arbitration or litigation.

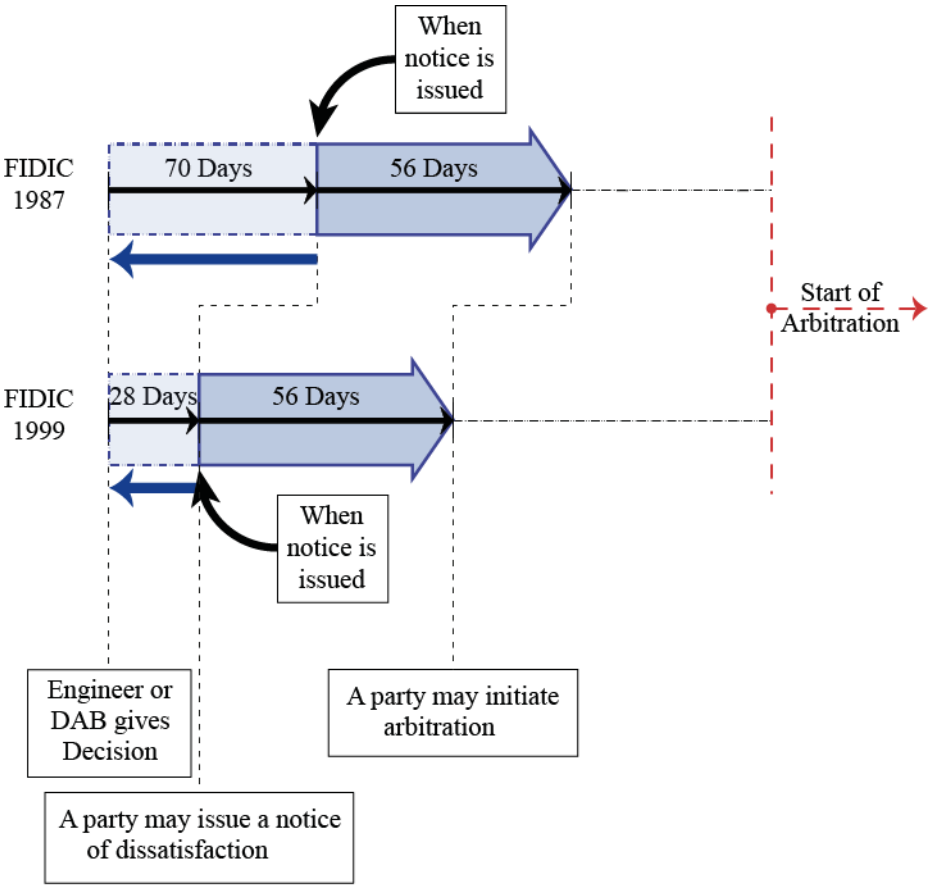

Figure 15: Notice of Dissatisfaction as an extension to the Amicable Settlement Period

3.4.2. Extension of the 56-day Period

Sub-Clause 67.2 of the 1987 FIDIC and Sub-Clause 20.5 of the 1999 FIDIC conditions of contract state that *unless the parties agree otherwise*, arbitration may be commenced on *or after* the fifty-sixth day after the day on which notice of dissatisfaction/notice of intention to commence arbitration of such dispute was given. This statement indicates that the length of the period allowing for amicable settlement can be extended to more than 56 days, on the condition that both parties mutually agree to this extension. The maximum number of days of this period can be contemplated at the onset of

the project and can therefore be specified in the particular conditions of the contract. The number of days can also be extended at any time before the expiry of the 56-day period, if both parties feel they need more time to attempt settlement. This extension is shown in Figure 16. If both parties are in agreement for such an extension, this could be an indication of their awareness of the importance of the amicable settlement period. Furthermore, this could mean that the efforts exerted by the disputing parties are genuine and really intended at resolving the dispute at this stage, before it escalates any further.

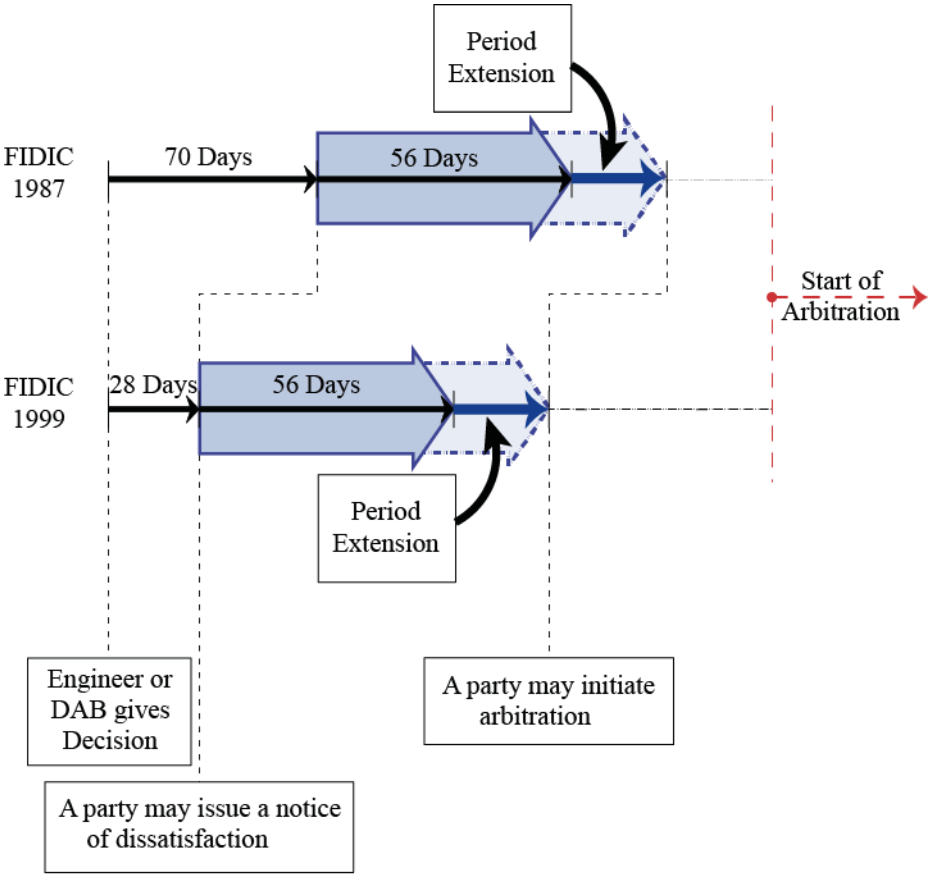

Figure 16: Extension to the Amicable Settlement Period by Mutual Agreement of Parties

3.5. Time Windows

As shown in the previous section and depending on the contract's general and particular conditions, the effective length of the amicable settlement period can actually be extended beyond the 56-day period mentioned in the FIDIC clauses. The Claim-Dispute timeline can be subdivided into four phases. Different conflict management approaches relevant to each phase can be identified. In addition, several windows are found along the timeline where amicable settlement may be sought. These conflict management approaches and windows of opportunity will be highlighted and analyzed.

3.5.1. Claim-Dispute Phases and Conflict Management Approaches

The periods of the Claim-Dispute timeline can be subdivided into four major phases. Each phase is characterized by different events and developments. The first phase starts at the beginning of the timeline, as soon as the event giving rise to the claim occurs, and lasts until the moment when the contractor submits to the Engineer the full claim with its particulars. Phase 2 extends from the submittal of the claim and its particulars, until the Engineer responds with a determination, just before it develops into a dispute and the dissatisfied party requests a Decision. Once dissatisfaction with the determination is expressed by either of the parties, and a Decision is requested of the Engineer or DAB, the claim-dispute timeline is considered to be in Phase 3. The issuance of the Decision by the Engineer or DAB marks the end of Phase 3 and the start of Phase 4. This last phase passes through the amicable settlement period and lasts until the initiation of arbitration. The attitudes and interests of the parties develop and differ between one phase and the next, depending on the progress of settlement attempts.

When dealing with a claim/dispute, several conflict management approaches are recognized that can help minimize the negative outcomes of the conflicts, and promote their constructive resolution. Competing, accommodating, collaborating, and compromising are conflict management approaches that can be assigned to various stages of the Claim-Dispute timeline. A description of these approaches and their applicability to the various phases will be presented in the following section. The four phases mentioned above as well as the conflict management approaches significant to them are illustrated in Figure 17:

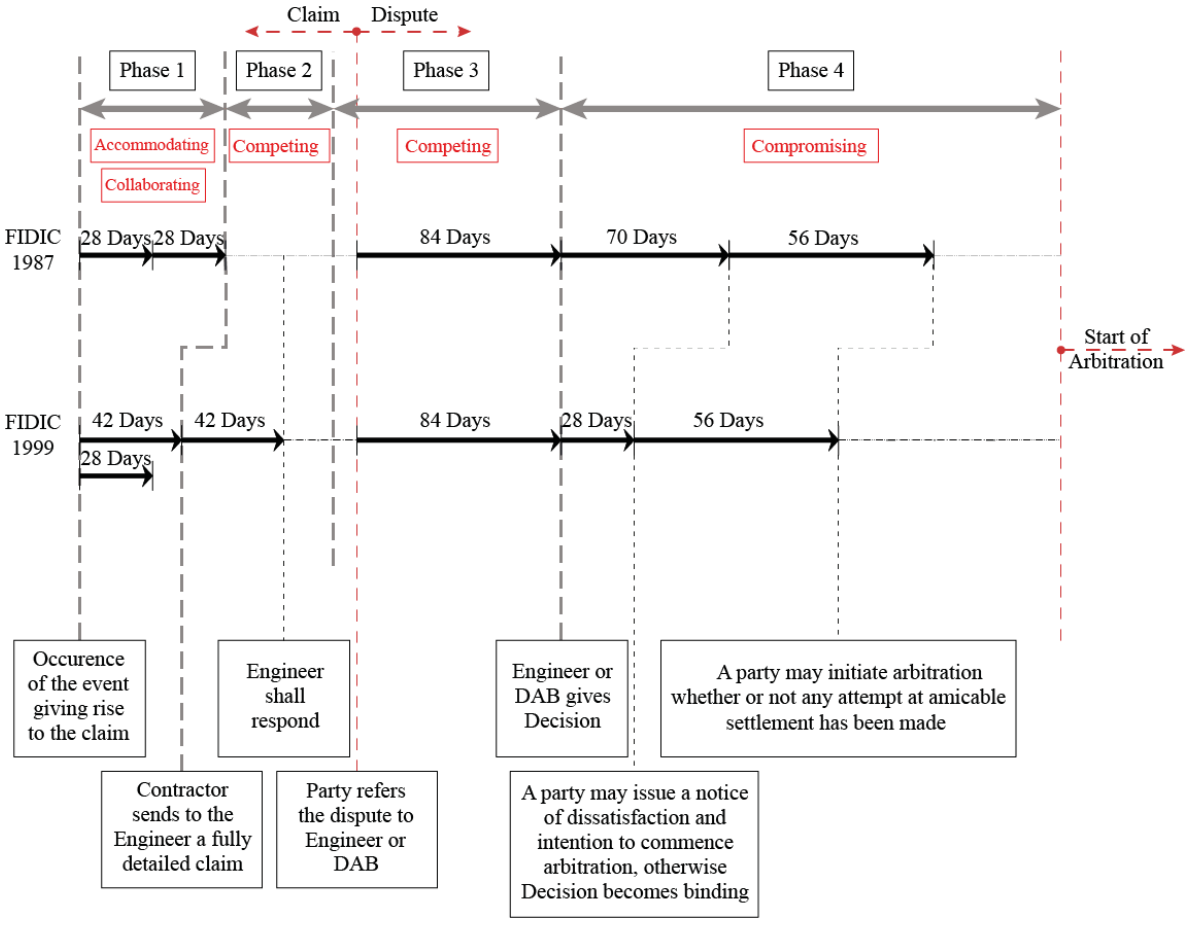

Figure 17: Claim-Dispute Phases and Conflict Management Approaches

Collaboration involves mutual effort exerted by the parties in working towards a solution that fully satisfies both of their concerns. This approach is assigned to Phase 1. At this point in the timeline, the claim has not evolved into a dispute, and the parties might choose to collaborate in order to prevent the escalation of the conflict. Prior to issuing a determination regarding a claim, and when consulting with the Employer and Contractor, the Engineer attempts to identify the main issue and address the concerns of both parties. Collaboration involves the cooperation of these parties, with the intention of reaching a common ground. Another approach to conflict management that serves well at this stage is accommodating, as it is effective in maintaining good relations between the parties. This approach, which is the opposite of competing, involves yielding, to a certain extent, to another's point of view. When one party can easily recognize the rightfulness and eligibility of the matter in question, accommodating the requests presented in the claim might resolve the matter early on, and avoid a potential conflict. As such, accommodating and collaborating are conflict management approaches relevant at this point in the timeline.

Once the Engineer has responded and informed both parties of his/her determination, and if the determination is not to the satisfaction of one or both of the parties, they are most likely to start pursuing their individual interests and concerns, at the other's expense. During Phase 2 the parties are reviewing their positions with respect to the Engineer's determination. If the determination is accepted, the level of tension among the parties is reduced. However, if the determination is rejected and the claiming party intends to pursue the claim further, the level of tension is bound to rise. The parties involved may negotiate and try to reach an agreement before the matter escalates further, however they

are considered to be in competition. Competing, another conflict management approach is most likely to start in Phase 2.

When the claim has developed into a dispute and the matter has been referred to the Engineer or DAB for a Decision, one of the parties may be determined to profit at the other party's expense. As such, the other party may have no resource but to fight back in self-defense. The competition that had erupted between the disputing parties in Phase 2 continues and perhaps escalates during Phase 3. The Decision regarding the dispute has not been issued yet, and the Engineer/DAB is revising all the evidence and particulars connected to the claim in order to render a fair decision. Throughout Phases 2 & 3, the parties' conflict-handling style can be characterized as competing. Each party to the dispute tries to force each other into believing that their demands can be met. During these phases, the parties have higher concern for themselves than for others. Each party will try to defend its standpoint regarding the dispute, in hope that the decision will be in its favor.

Once the Decision is made, the parties are given some time to consider it. If the parties accept the Engineer's or the DAB's decision, the level of tension between them decreases. Failure to issue a notice of dissatisfaction in time makes the decision binding on both parties. If however, a notice of dissatisfaction is issued, the dispute continues to exist. Phase 4 commences when the Engineer or the DAB gives its decision and ends when a party initiates arbitration. During this phase, the parties are given the chance to discuss the matter of the dispute and attempt to reach a resolution, to avoid forwarding it to arbitration. At this stage, compromise is essential. The parties, in an attempt to reach a mutually acceptable solution, will go through a process of negotiations and give-and-take in order to reach a settlement that is to the satisfaction of them both. If no compromise is made and the

amicable settlement period elapses without an agreement being reached, the tension levels reach their highest, as arbitration may be commenced following this stage.

3.5.2. Windows of Opportunity for Amicable Settlement

Along the dispute timeline, there exist several windows where amicable settlement may be sought. These windows are related to the 56 days discussed in the previous section, as well as the possible extensions to this period. Throughout these time windows, the parties are free to deliberate among themselves and to seek the opinions of external third-party advisors or consultants (legal, technical, or other) regarding the matter in dispute. However, no party has the power to insist on or force the other party into making an attempt at amicable settlement at any point during these time windows.

3.5.2.1. Primary Time Window (1)

Window 1 is the most evident time window: it is the fundamental 56-day period mentioned in the amicable settlement clauses of the conditions of contract. As mentioned before, the elapse of this period is mandatory before the initiation of arbitration. After one of the parties expresses its dissatisfaction with the Engineer/DAB's decision and consequently submits a notice, the disputing parties are given the chance to attempt resolving the dispute at hand during this Window 1. As such, the start of Window 1 can be defined as the time when 56-day period is triggered by either the issuance of the notice of dissatisfaction by either of the parties or by any other event or action as may be specified in the particular conditions of the contract. This window extends throughout the 56 days, and includes any extension of the number of days allowing for amicable settlement that is

mutually agreed to by the parties. It is described here as the primary or official time window as it is the only window that is stipulated in the FIDIC conditions of contract. Depending on the contract conditions, this period may sometimes extend over more than 56 days. Some contracts mandate an 84-day period for amicable settlement, others a 90-day period. Figure 18 shows Window 1 along the claim-dispute timeline.

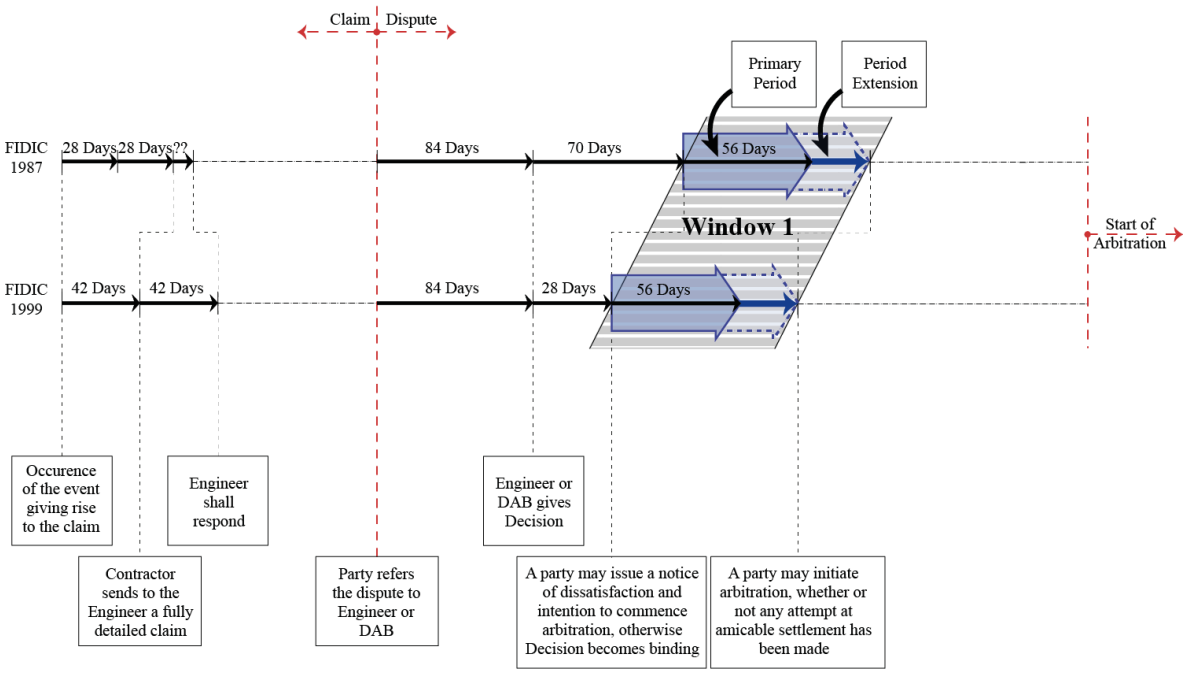

Figure 18: Primary Time Window (1)

3.5.2.2. Time Window Prior to 56-day Period (2)

Window 2 is associated with the phase preceding the start of the 56-day period. This window extends from the moment when the Engineer/DAB gives the Decision until the start of the amicable settlement period. The possible extension mentioned in the

previous section that is related to whether the number of days (28 or 70) given for issuing the notice of dissatisfaction are allowed to be exhausted can be included under Window 2. As such, the length of this Window is affected by practices and actions of the parties themselves. If a notice of dissatisfaction is given immediately after the Decision is rendered, and the 70-day or 28-day period are cut short, then Window 2 is rendered inapplicable. As illustrated in Figure 19, this window is situated on the dispute timeline after the issuance of the Engineer's or DAB's Decision but before the start of the 56-day period. Attempts for amicable settlement can be started during this window, and can extend on into the actual 56-day period.

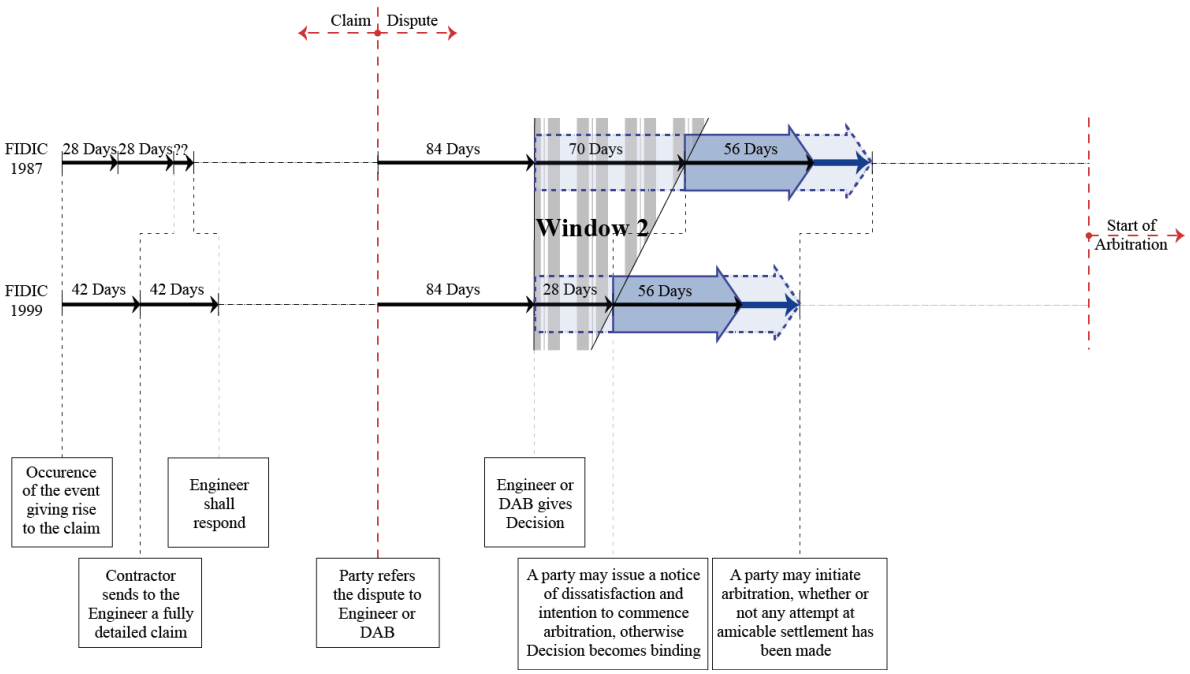

Figure 19: Time Window Prior to 56-day Period (2)

3.5.2.3. Time Window Following 56-day Period (3)

The third window of opportunity identified along the claim-dispute timeline is situated after the 56-day period. This Window includes the Period extending between the expiry of the 56-day period and the date of initiation of arbitration. It also includes any notice period required prior to the commencement of arbitration that is mandated by the contract conditions. Window 3 falls along the last section of the timeline preceding the commencement of arbitration. This period might extend considerably depending on the dispute at hand, the attitudes of the parties regarding this dispute, and the contract clauses pertaining to dispute resolution and amicable settlement, and any time bars that may act as upper bounds to this period. The commencement of arbitration can be delayed significantly for various reasons: if any required notice of intention to commence arbitration is not issued, if the 56-day period cannot be proven to have come commenced, if the particular conditions pertaining to the start of arbitration have not been met, etc. all of which are factors that can affect the length of Window 3. Furthermore, the FIDIC conditions of contract do not mention an upper bound for the commencement of arbitration, which may cause Window 3 may extend considerably, as is illustrated in Figure 20:

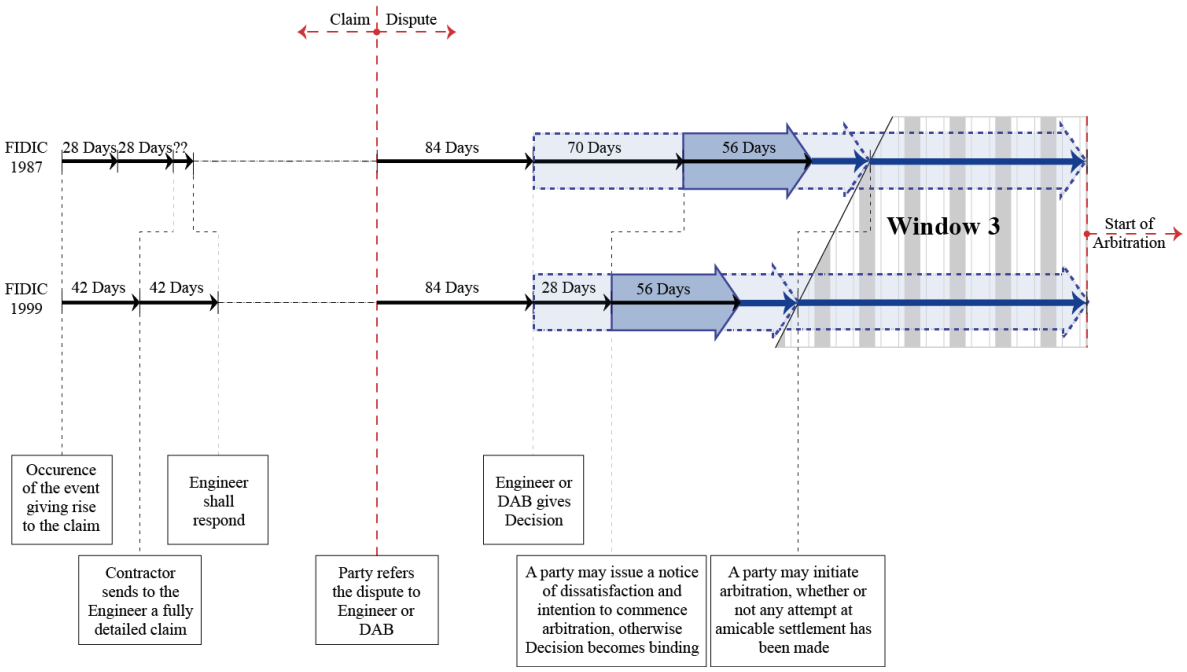

Figure 20: Time Window Following 56-day Period (3)

3.5.2.4. Time Window at the Claim Stage (4)

The three windows mentioned above fall along the dispute part of the claim-dispute timeline. However, it is important to mention one last window that allows the parties to resolve their differences early on, when the matter is still considered a claim and has not yet developed into a dispute. This fourth window extends from the moment when the Engineer responds with a determination, at least on the basis of the claim, after due consultation with the parties until the matter is referred back to the Engineer, or to the DAB, for a decision. During this period, and before a Decision is requested, the parties have the chance to discuss the determination through further consultations with facilitation provided by the Engineer in attempting to reach an agreement regarding the claim. At this

stage, the tension between the parties has not escalated, and communication between the parties can usually be attempted without the need for third-party assistance. Resolving a claim at this stage can allow the work to progress faster, without causing delays to the project. It can also prove helpful in maintaining a good relationship between the parties. The length of Window 4 is mainly influenced by the expression of dissatisfaction with the Engineer's determination and the request of an Engineer's Decision.

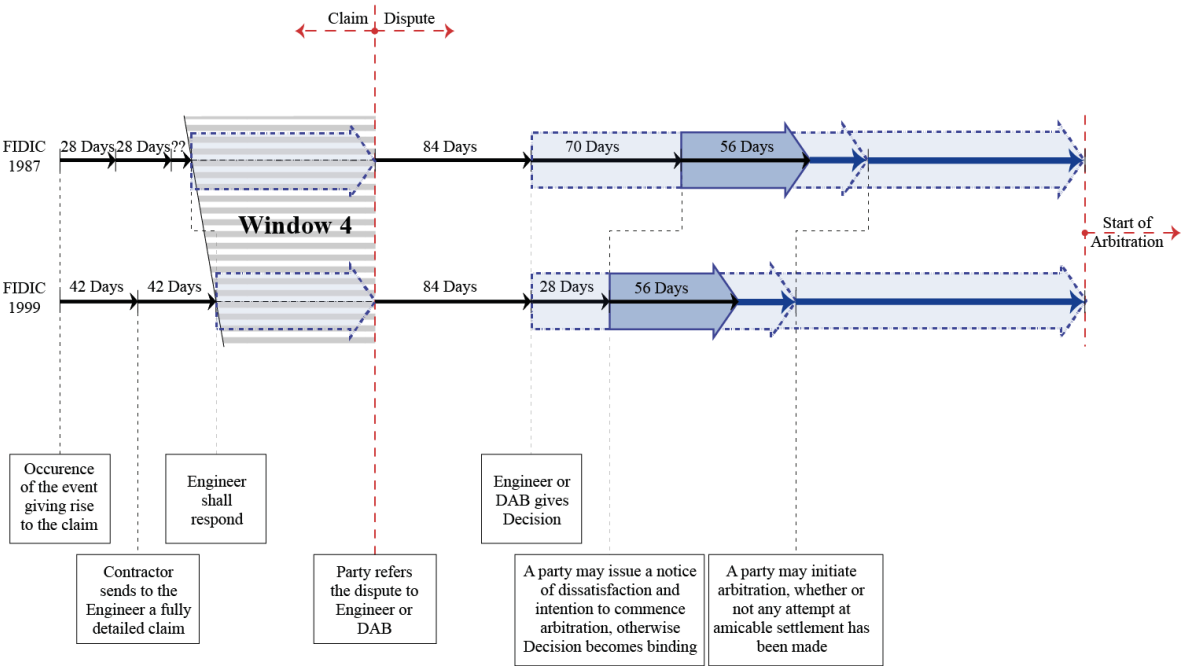

Figure 21: Time Window at the Claim Stage (4)

The time windows highlighted in Figure 22 should be considered as openings that allow the parties more time and chances to resolve their dispute, and such opportunities should not be missed or taken for granted. If no collaboration or compromise or even

communication occurs along these windows, and no attempts at settling the matter amicably are made, the dispute will be forwarded to arbitration, which is a more time-consuming and costly process. Taking advantage of all the windows of opportunity described above could save the parties a lot of time and money, and could help maintain good relationships between the project participants.

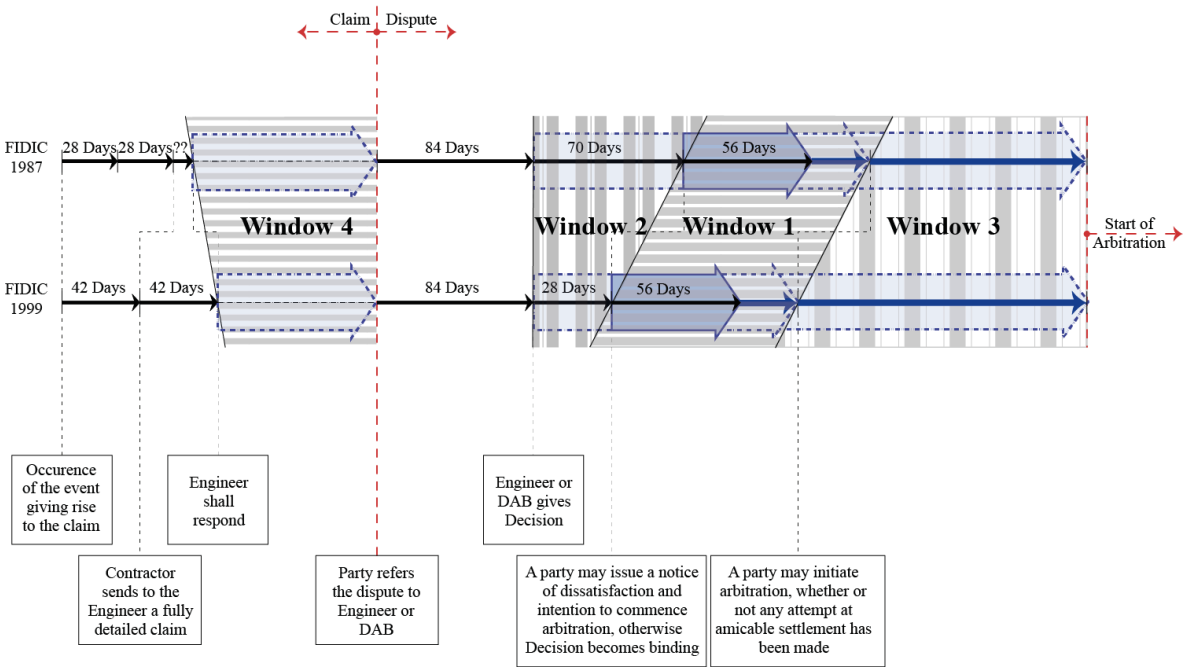

Figure 22: Time Windows along the Claim/Dispute Timeline

3.6. Upper Bound on Initiation of Arbitration

Parties to a dispute can only initiate arbitration once the mandated time period for attempting amicable settlement has elapsed. Only then may this procedure be started, even if no such attempt has been made. A lower bound on the commencement of arbitration exists and is stipulated in the FIDIC conditions of contract as the pre-condition mentioned

above. This lower bound is set in place in order to allow the parties the chance to try and resolve the dispute at hand. However, an upper bound for the commencement of arbitration is not mentioned in the FIDIC conditions of contract. As a result, the contractor may postpone the initiation of arbitration until after the Taking Over Certificate has been issued or even the expiration of the Defects Liability Period. At such a point in the project timeline, the claims/disputes that had been filed at various stages during the project will have piled up. In such a situation, the contract closeout may not be finalized, as the Contractor might not accept to submit a discharge, on one hand, and the employer may continue withholding the remaining retention beyond the expiration of the Defects Liability Period, on the other hand.

Postponing the initiation of arbitration until a very late stage may entail several risks. The people who are familiar with the project and the disputes might no longer be available, or might be preoccupied and unable to dedicate sufficient time and effort when needed, at both the contractor's and employer's ends. With the elapse of a long period of time, people might not be able to accurately and vividly recall facts critical to the claim/dispute case. In addition, by postponing the initiation of arbitration, the Contractor and Owner run the risk of losing their right to pursue arbitration. This depends on the statutes of limitations that establish the time limits beyond which lawsuits regarding the disputes are barred. This time limit varies depending on the jurisdictions governing the contract.

CHAPTER 4

HINDRANCES TO EFFECTIVE AMICABLE SETTLEMENT

4.1. Preamble

The following chapter will examine the contract timelines of nine current construction projects of various scope, program, and contract type, and present a case-based review of practices. Based on the general and particular conditions of projects' contracts/subcontracts, timelines for each project will be illustrated. These timelines, in addition to the dispute resolution clauses specified in the projects' contracts, will highlight advantageous and disadvantageous practices that come into play while attempting to resolve claims amicably or otherwise. The attitudes and actions of the parties involved in the various cases and the measures followed by the various participants in attempting to resolve claims and disputes on these projects will be described and analyzed, which will allow the formulation of a list of detrimental and instrumental practices.

4.2. Case-based review of practices

The construction projects taken as case studies are all located within the Middle East and North Africa (MENA) region: Lebanon, Qatar, UAE, and KSA, however names of the projects and their respective participants (Owners, Contractors, Subcontractors) will remain unidentified for discretion reasons. A analysis of the contract timelines of nine

construction projects (at various stages of completion/progression) of various scope, program, and contract type will be presented. A summary of these project types, contract formats, and construction project is shown in table 2:

Table 2: Projects Details

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Project Type	Hotel	Residential Towers	Block of Residential Towers	Mixed-Use Complex	Office Building	Residential Tower	Commercial Center	Mixed-Use Complex	Commercial and Residential
Contract Type	FIDIC 1987	Employer-Contractor Template	Employer-Contractor Template	FIDIC 1987	FIDIC 1987	Sub-contract Template	Sub-contract Template	Sub-contract Template	Sub-contract Template
Progress	Under Construction	Completed	Completed	Completed	Completed	Completed	Under Construction	Completed	Under Construction

4.2.1. Case 1

The first case study taken into consideration involves a general contract based on the 1987 FIDIC conditions of contract, and pertains to a hotel building currently under construction. As per the contract conditions, the Contractor is allowed 28 days from the occurrence of the event giving rise to the claim to submit a notice of a claim. He is then given another 28 days to send to the Engineer all particulars regarding the claim. The claim submitted by the Contractor is regarding variation orders concerning the design that were instructed by the Engineer based on the Client's orders. A first claim for a time-extension was submitted to the Engineer for consideration. The Engineer responded by allowing the Contractor an extension of time, although not granting him all the number of days requested. The Engineer did not consult with the parties prior to making this determination, and he did not present any analysis as to how the number of days pertaining to this claim was calculated. The Contractor accepts this extension of time, however the remaining number of days claimed for but not granted remains the matter of a claim.

The Contractor files for a second claim for an extension of time and additional cost compensation. This claim is based on a delay that is debated to have been a continuation of the first claim, and is rooted in the series of further changes requested by the Owner and affecting the same design elements. The Engineer responds to this claim by stating that the Contractor has failed to comply with the required notices, and is therefore not entitled to an extension of the Time for Completion and/or additional payment. The Engineer rejects in principle the Contractor's second claim. His response is regarding the time bars for the submittal of notices and particulars, and not regarding the content of the claim and the rightfulness of the Contractor to compensation. However, the Engineer then requests further particulars in the form of evidence of expenses regarding the additional cost claimed. Figure 23 illustrates the claim/dispute timeline of this case:

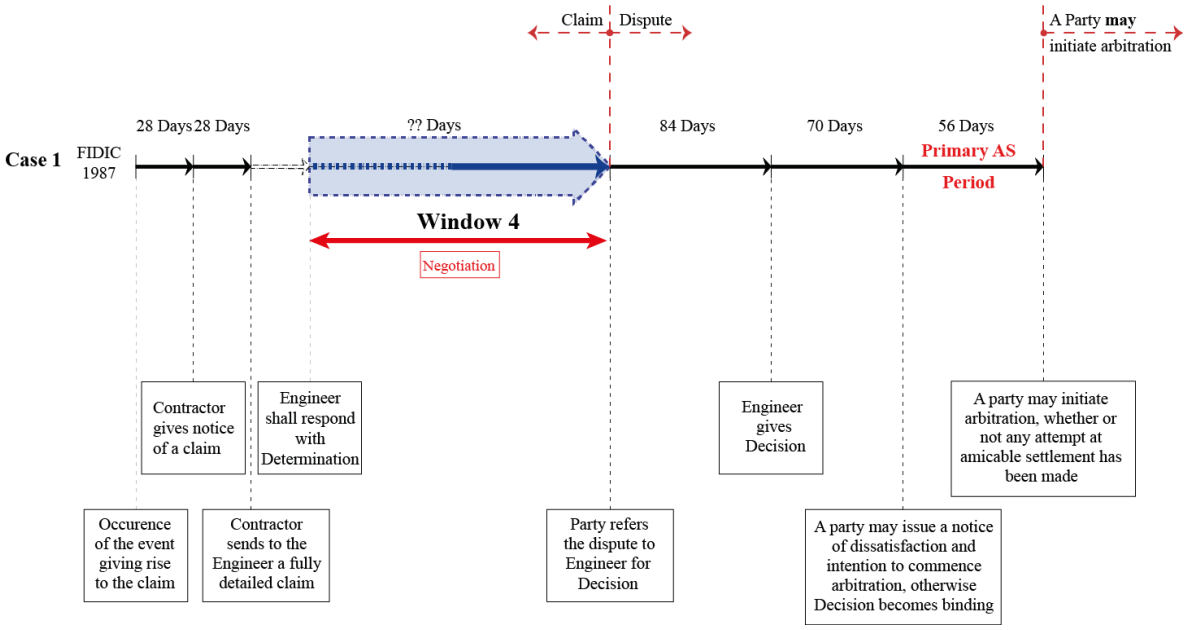

Figure 23: Case 1 Claim/Dispute Timeline

Following the Engineer's response (determination), a series of letters and documents is exchanged between the Contractor and Engineer, debating the issue of eligibility of the Contractor's claim in accordance with the contract clauses. In addition, several meetings are held between the parties to look further into this matter. The interventions during negotiations are in the form of phone conversations and meetings, and involve people and representatives from operational, executive, and board levels. As illustrated in Figure 24, verbal communications and meetings are taking place at several levels and engaging individuals from all levels of the governance system at the ends of the Employer, Contractor, and Engineer. In addition, several meetings are held at the executive level, combined with the operational level, both on site and at the head office, and involving all three participants. The contractor plans to push for workshop meetings at the operational level (site and head offices). Another strategy proposed by the contractor is to involve an expert to examine the points of differences. By making this suggestion, the contractor hopes to unveil whether the engineer is confident about his position.

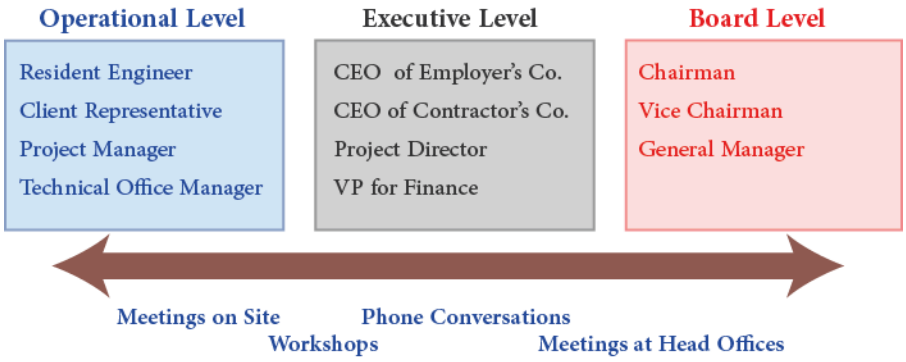

Figure 24: Spectrum of Participants' Positions and Interventions

The contractor has not yet requested an Engineer's Decision, and as such the matter has not developed into a dispute, and is still considered a claim. The discussions and negotiations taking place at this point along the timeline fall under Window 4. The contractor, who is well aware of the seriousness of requesting an Engineer's Decision regarding the matter of the claim, is avoiding having to request such a decision in fear of having to reject it and thus risk going to arbitration. The employer and contractor share a long-term relationship and have worked together on several projects. By requesting an Engineer's Decision, the parties will thus be considered in dispute, which might prove detrimental to their relationship. In order to prevent tension levels from escalating and avoid the deterioration of the relationship between the two parties, efforts at discussing and negotiating the matter are attempted. Another reason inhibiting the contractor from requesting an Engineer's Decision is the influential status of the Employer. The position of supremacy associated with the Employer is a matter of concern for the contractor, especially where arbitration and court trials are concerned. In light of the factors mentioned above, negotiation as a resolution method is useful to the parties at this stage, whether outside assistance is involved or not.

The significance of this case lies in understanding the importance of addressing claims and attempting to resolve them during Window 4. As mentioned before, the parties met for discussions on several occasions. These negotiations and deliberations stretched over several months, and this goes to show how long this process could extend, before requesting an Engineer's decision. The meetings and discussions that took place between the parties were not documented or recorded, based on the employer's request; no minutes

of meeting were noted. This practice put the contractor at a disadvantage, as meetings would adjourn without any tangible proof of development or progress (if any) being documented. The contractor's forestalling in requesting an Engineer's decision reflects his attitude and patience, as well as his intention to maintain good relationships with the owner. The positions of the parties, especially the contractor, and their keenness on agreeing to a common ground regarding the claim, without having to resort to formal and binding resolution methods such as arbitration plays an important role in determining the chances of success at resolving any conflicts throughout Window 4. Choosing not to request an Engineer's Decision in this particular case allowed the negotiations to extend, and displayed good faith. To this present moment, negotiations regarding this claim are still on going, and the contractor is entertaining the idea of suggesting to the employer the possibility engaging a third-party for facilitation and/or conciliation, or simply to give a non-binding opinion. The involvement of a facilitator or conciliator to assist in the coming meetings could prove beneficial during such attempts.

4.2.2. Case 2

The second case study involves a general contract with several particular conditions specific to this project, which is a residential complex. As per the contract clauses, following the occurrence of an event giving rise to the claim, the contractor has 28 days to submit both notice of claim and the corresponding particulars pertaining to that claim. Once the Engineer or Employer give a determination, with which the contractor is dissatisfied, the contractor may refer the matter to the Employer's management under the amicable settlement clause. Following this referral, the parties are allowed 84 days to

attempt resolving the dispute amicably, with the involvement of an Upper Management Committee. If after the 84th day the matter in dispute remains unresolved, a notice of intention to commence arbitration may be issued. However, the contract pertaining to the case under study specifies in its particular conditions that in the case where a dispute arises between the parties, and there is an intention to proceed to arbitration, the process of arbitration cannot be commenced until *after* the issuance of the Taking Over Certificate of the whole of the works. No arbitration proceedings may be held before this major milestone is achieved and the prerequisite mentioned above is met.

Throughout the course of this project, the contractor encountered several events for which he filed numerous claims regarding both time extensions and cost compensation. The contractor submitted both notice and particulars regarding the first claim to the Engineer. The Engineer responded with a determination, which was not accepted by the contractor. The time extending from the contractor submitting the particulars and the Engineer responding is not a very long period. In this particular case, Window 4 is considered to have passed relatively fast, without any negotiations regarding the determination. The contractor communicated his dissatisfaction with the Engineer's determination, and the matter was referred to the Employer's management for consideration. As such, the 84 days allowing for amicable settlement were triggered, and they elapsed without the parties reaching an agreement. Attempts at resolving the dispute during the 84 days included several meetings and deliberations between the parties, however they were to no avail. These attempts proceeded after the expiration of the 84-day period. Meetings at both operational and site levels were held both on site and at the head office. Various representatives of both parties occupying different technical and

management positions were involved in the negotiations process. For example, one of the meetings held involved the participation of the resident engineer on site, the project manager, the project director, the client representative, and the VP for Finance. Another settlement meeting involved the top executive level CEOs of both contractor's and employer's companies. Although the numerous meetings did involve senior staff from the head office, site level operational staff, executive level personnel, and board level members, no agreement as to the matter of the claim was reached. None of these deliberations was documented.

A summary of the amicable settlement attempts that occurred over the various Windows of opportunity in this case shows that:

- Window 4 was briefly employed in trying to reach an agreement regarding the matter. From the issuance of the determination and until the referral of the matter to the Upper Management Committee, one major meeting took place (combined levels).
- Once a notice of dissatisfaction was issued, Window 1, which in this particular case extends over 84 days (not 56) was triggered. Some attempts at negotiations were made during this Window, but no agreement was reached.
- Window 3, which extends from the expiration of the abovementioned 84-day period until a settlement is reached or arbitration is commenced, was extensively stretched in this case, due to the particular condition requiring the TOC as a precondition to the commencement of arbitration.

- Contractor resorted to the assistance of an expert legal third-party at the end on Window 3, after having filed for arbitration.

Figure 25 below illustrates the claim/dispute timeline of this case, and highlights the Windows that were effectively employed by the parties at various stages of the project:

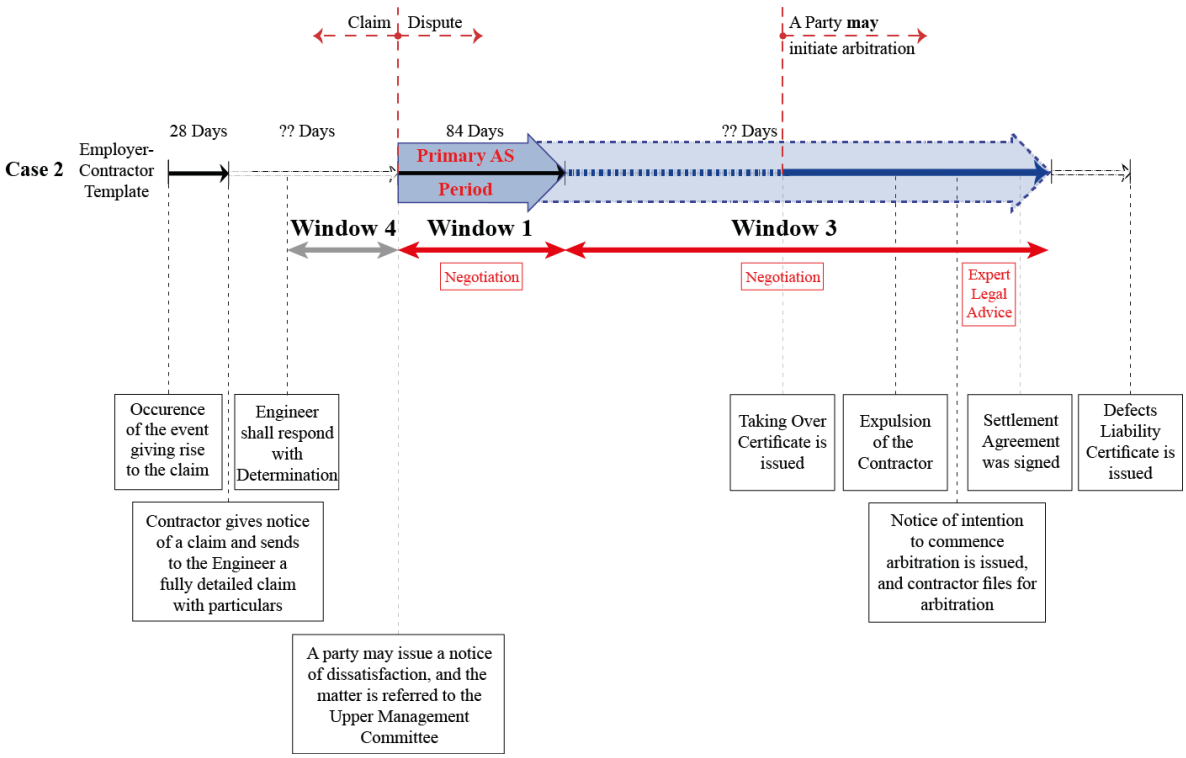

Figure 25: Case 2 Claim/Dispute Timeline

It is important to highlight the sequence of events that took place along Window 3. The contract conditions tied the commencement of arbitration to a major event along the project timeline, which created a significant period prior to the initiation of arbitration. In regard to this specific project, whereby the claimed amounts were relatively large, the

aforementioned period extended considerably, which put the contractor under financial distress and caused him to face difficulties in funding the construction process, and even reach the verge of bankruptcy. During Window 3, the settlement meetings mentioned above were still taking place. However, the contractor completed the construction of the project and the Taking Over Certificate was issued before any settlement agreement was realized.

At this point, the contractor was facing so many financial difficulties that he was unable to produce and complete the project snag-list, which led to his expulsion by the employer. In light of the failed settlement attempts and the expulsion by the employer, the contractor filed for arbitration after the whole of the works was completed and the Taking Over Certificate was issued. Although the contractor was, at the time, unable to fund the entire arbitration procedure, a notice of intention to commence this process was communicated to the employer. The conditions of contract specify that a panel of three arbitrators oversee the arbitration process. Due to financial difficulties, the contractor tried to alter the arbitration procedures from three to one sole arbitrator, but was unsuccessful in doing so. The employer had no problem with resorting to arbitration. It is important to mention that meetings between the parties were still taking place. The contractor, after filing for arbitration, resorted to the legal opinion of an esteemed law firm. A study by the legal experts assessing the situation and the eligibility of the contractor to the claimed amounts was presented in the form of a lengthy and accurate report. The contractor made it known to the Engineer and Employer such a study was conducted. In a way, the contractor tried to use this legal opinion to try and shift matters to their favor. Although seeking a legal opinion did not immediately and directly serve the negotiation procedures and result

in a settlement agreement, such an agreement was eventually signed prior to the commencement of arbitration.

The parties engaged this last opportunity, which falls under Window 3, in settling the dispute, thus avoiding the lengthy and costly process of arbitration. In this particular case, settlement was achieved after the issuance of both the TOC and the notice of intention to commence arbitration. The contractor exhausted all means that could have funded the arbitration process: attempting to sell company shares, acquiring bank loans, attempting to sell the claim case to law firms, etc. However, he eventually settled for an amount that was significantly lower than the claimed amount, almost one sixth of the total demanded sum. This goes to show that in fear of bankruptcy, and even though the contractor did indeed file for arbitration, amicable settlement was still favored as a dispute resolution method, especially since the financial situation of the contractor at the time was at its worse. The settlement agreement was signed almost one year after the Taking Over Certificate was issued, in concurrency with the Issuance of the Performance certificate at the end of the defects liability period, which shows how long Window 3 extended in this case. Throughout the settlement attempts, no third-party was involved in assisting in the negotiations process. The contractor resorted to an expert legal opinion in order to evaluate his own standing, and not to facilitate the discussions. Mediation wasn't suggested as an option, and the contractor filed for arbitration without attempting further resolution methods.

4.2.3. Case 3

The third case study that was analyzed regarded a block of residential buildings, and a masked 1987 FIDIC general contract between an Employer and Contractor. When filing for a claim, the Contractor is required to submit a notice of a claim within 21 days of the claim-causing event. Following this submittal, the Contractor is allowed 28 days to submit to the Engineer the documents and evidence needed. A particular condition mentioned in the contract clauses states that if the Contractor fails to submit the notices and particulars within due time, he loses his right to the claim. Once a claim is submitted, the Engineer is responsible to look into the matter, and render a fair determination. If any of the parties is dissatisfied with the determination, a Decision may be requested, for which the Engineer is given 70 days to render. In case a notice of dissatisfaction is issued, the matter in dispute can only be arbitrated if the 56 days for amicable settlement have passed.

The Contractor submitted an extension-of-time claim and additional compensation claim regarding both delayed-payment issues and proclaimed variations. In response, the Engineer divided the claim into two folds. The Engineer then issued a determination regarding the first part of the claim that concerned delayed payment, which was awarded. The second part required the contractor to submit to the Engineer additional particulars. The Contractor submitted these additional particulars to the Engineer after the Taking Over Certificate was issued. This postponement in submitting the particulars caused Window 4 of the claim/dispute timeline pertaining to this case to be deferred considerably. The Engineer had originally requested further particulars in order to be able to give a precise and fair determination. Due to the delay in receiving such particulars, the Engineer was unable to render any further determination, and the matter of the claim was put on hold

until the particulars were eventually submitted. During this stretch in time, no negotiations could have taken place, seeing as no determination concerning the issue existed. Once the overall second claim was submitted (after the TOC was issued), the determination regarding this second claim was communicated, and this actually took place during the Defects Liability Period, as is shown in Figure 26. The DLP period expired without the matter at hand being settled, and as such the claim is still ongoing and has not been concluded.

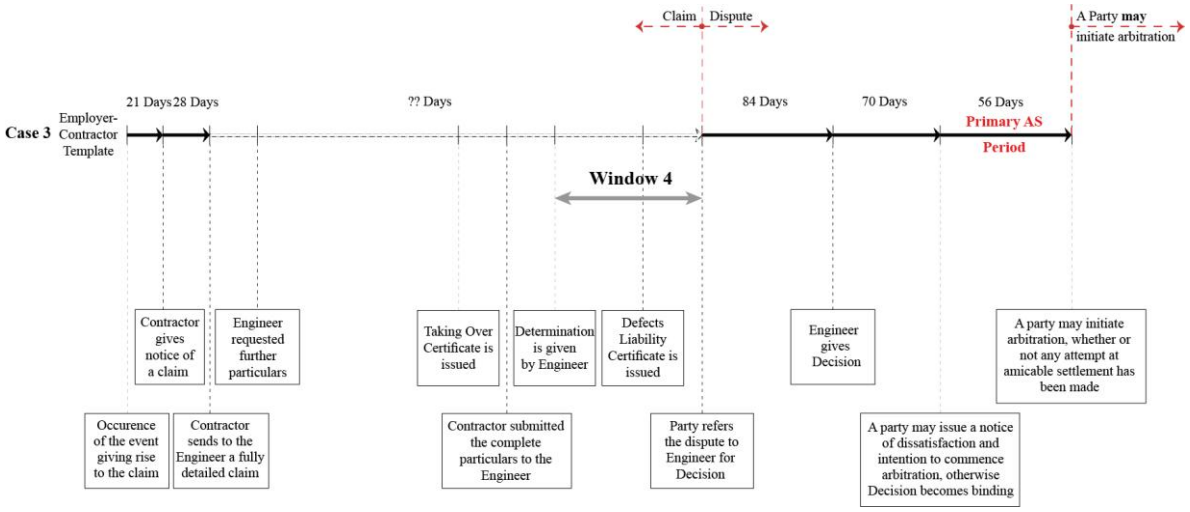

Figure 26: Case 3 Claim/Dispute Timeline

The significance of this case lies in demonstrating how the parties to a dispute can themselves render the amicable settlement period ineffective. The matter at hand has not yet developed into a dispute, seeing as an Engineer's Decision has not yet been requested. However, attempting to resolve the matter while it is still considered a claim was not

possible as a result of the actions of the contractor. The stretch witnessed in this particular case shows how long the claim/dispute timeline can extend; and what practices can actually render the stages of this process useless. The lack of complete particulars resulted in the absence of a determination on the second part of the claim, which prevented any negotiations from occurring. A lot of time elapsed, the construction process was completed, and yet no progress regarding the claim case was made until very late into the project. Figure 26 illustrates the sequence of events that actually occurred on case 3, as well as the possible progression of events in case an Engineer's Decision is to be requested in the future. It is shown how Window 4 began at a late stage in the project, after the Taking Over Certificate was issued, and how the Defects Liability Certificate was actually issued within this Window. No negotiations took place throughout this period, and Window 4, in addition to beginning at a late stage, was also rendered useless. Window 1 has not yet been triggered, even though the project's Performance Certificate has been issued, and, as such, the actual amicable settlement period (Window 1) has not and may not be triggered.

4.2.4. Case 4

The fourth case taken into consideration involved mixed-use development and a 1987 FIDIC general contract. At various points throughout the progression of the project, the Contractor submitted to the Engineer several claims that were in relation to time-extensions and associated incurred overhead costs, caused by delays by the Employer, and claims related to design changes and the delays caused by them. Following the occurrence of an event, the Contractor had 28 days to submit a notice of a claim, followed by another 28 days to submit the full particulars regarding the given claim. When submitting the

particulars of the claims, the Contractor outsourced the procedure of claims preparation to a well-established project management firm, to ensure that the quality of the particulars and the specificity of the amounts claimed for. Determinations regarding the claims were given, and negotiations concerning each individual claim were ongoing. Towards the completion of the project, meetings that were held between the Contractor and the Employer tackled all pending claims simultaneously.

Window 4 extended considerably in this case. Negotiations regarding the basket of unresolved claims were still ongoing during the Defects Liability Period. The Contractor was not satisfied with the determinations of the Engineer, which is why he resorted to a technical expert to respond to these determinations, and this took place during the DLP. Some time following this response, the Defects Liability Certificate was issued. The Contractor was intent on proving his position and eligibility, without requesting an Engineer's decision, which caused Window 4 to stretch considerably along the project timeline. The Employer denied the retention sum to the contractor on the basis that this sum will be used to cover the liquidated damages he intended to levy, and any amounts left unsettled are considered as the contractor's debt to the employer. This position was used as a leverage to try and influence the contractor to drop his claims.

At this stage, the contractor decided to request an Engineer's Decision. The Decision was given almost immediately, and as such the Contractor's dissatisfaction with this Decision was also communicated directly. By giving the notice directly after the decision was issued, the 70 days allowed for issuing such a notice were cut short, and the 56-day period for amicable settlement was triggered. Negotiations, which were still ongoing, continued on throughout this Window via holding workshops, intended to

examine the cause-effect relationships underlying the events used in the claims, but now with the support of the Contractor's technical expert. Seeing the discussions evolving in the right directions, with facilitation and support by the technical expert who acted more like a neutral during the held workshops, and based on the request of the contractor, the parties mutually agreed to extend the period allowing for amicable settlement by 28 days, in hope of reaching an agreement. This extension demonstrates good faith, on the part of the Contractor, and a positive attitude regarding the resolution process. Several workshops/meetings were held involving operational level staff; however, no minutes of meeting were noted and no exchange of documentation took place during the overall extended amicable settlement period. As mentioned earlier, the Contractor relied on the advice and counsel of a technical expert throughout this process, who was present in all meetings. Two meetings involved only the CEOs of both the Employer's and Contractor's companies, who, in addition, attended one of the workshops along with the operational level staff. The various Windows employed by the parties are illustrated along the claim/dispute timeline of this case in Figure 27:

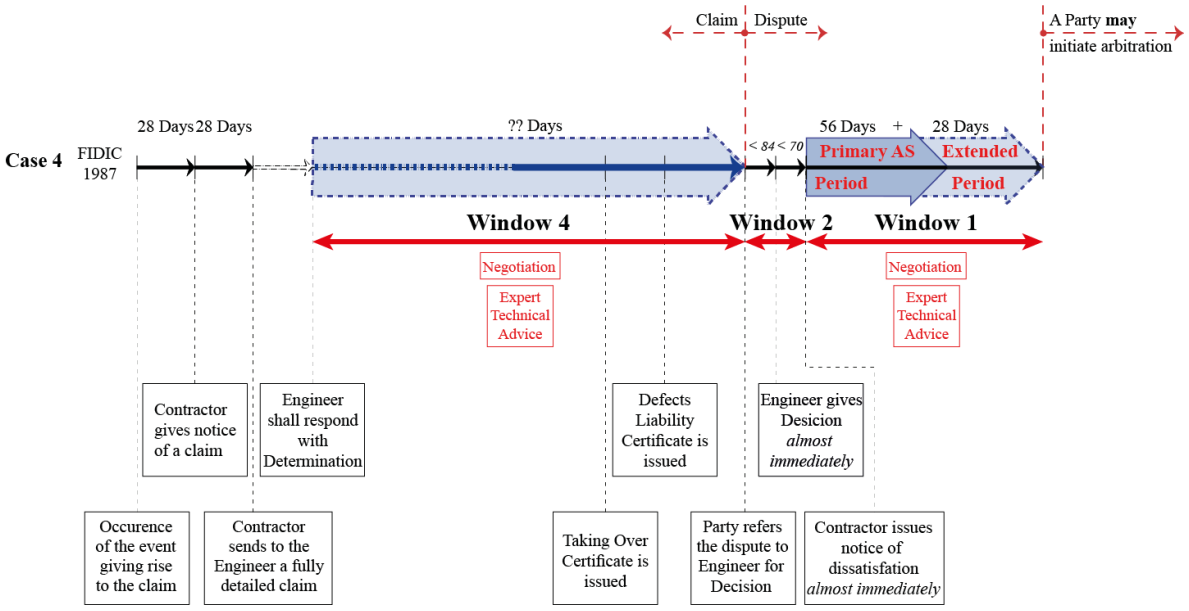

Figure 27: Case 4 Claim/Dispute Timeline

At some point during the negotiations and workshops that were held, the Employer felt that the Contractor is gaining ground while discussing the amounts claimed and presenting all the particulars. As such, the Employer expressed their concern with the lengthy process that was taking place and started questioning the relevance of the evidence used by the Contractor. The result of these workshops was the recasting of the entire claim case, by the Contractor with the help from the technical expert, into a clear and credible format reflecting a revisited analysis, which was communicated to the Employer as an official correspondence upon the expiry of the extension to the amicable settlement period. This same document was of the quality that could aid the Contractor in the preparation of the statement of claim if and when arbitration commences. In addition, the technical expert produced a report for the Contractor's board of directors' use stating the firm's position and eligibility with regards to the claim, and the chances of winning if arbitration is to be

initiated. The Contractor informed the Employer of this additional above-mentioned report, in an attempt to gain further leverage.

No action has yet been entertained to start the arbitration proceedings for a number of reasons. The Contractor fears the influence of the Employer on the body, specified in the conditions of contract as the administrator of the arbitration proceedings, coupled with the fact that the arbitration clause calls for the appointment of a single arbitrator, as opposed to a three-arbitrator tribunal. It is worth mentioning that the Employer is a leading and influential developer, and, as such, the Contractor fears that the case might be unjustly ruled against him if it is to be arbitrated. Furthermore, the Contractor hopes to work with the Employer again. Possibilities of negotiating an exchange of demands/services between the Employer and Contractor are being endeavored. The Contractor is willing to accept the option of his dropping the claim if, in return, the Employer drops the counterclaim (related to the retention sum and liquidated damages) and allows the Contractor the opportunity to take part in the construction of the one of the Employer's upcoming large-scale commercial facilities. This form of "bartering" could result in an agreement, thus avoiding arbitration.

In summary, based on the detailed and intensive analysis of the claim's particulars undergone as part of the workshops and based on the unbiased analysis performed by the technical expert regarding the claim case, the Contractor is convinced of his eligibility towards the compensation requested. However, out of fear of spending too much time, money, and energy on the arbitration proceedings, and out of concern regarding the neutrality of the assigned arbitrator that could be assigned, the Contractor is considering the other available options.

4.2.5. Case 5

Case 5 in the case study analysis concerns a claim related to a late possession of site. The project regards a commercial building and the general contract signed by the Employer and Contractor is based on the 1987 FIDIC conditions of contract. This specific case concerns a claim that was arbitrated ten years after the issuance of a notice of dissatisfaction and intention to commence arbitration by the contractor. Following the occurrence of the event that gave rise to the claim, the contractor submitted to the Engineer, within the required time-bars, the notice of claim followed by the corresponding particulars. Where a late possession of site is concerned, the contractor is eligible to claim for reimbursement of cost, but not for compensation regarding foregone profit. As such, the Engineer then issued a determination, which found the contractor to be eligible to some, but not all, of the claimed amounts. Following the issuance of this determination, the parties effectively engaged Window 4 by discussing the matter at hand. Meetings that encompassed both operational and executive level personnel were held throughout this period. The VP of the employer's company and the CEO of the contractor's company jointly attended meetings together with operational level staffs from both sides. However, no agreement was reached during Window 4.

An Engineer's decision was then requested, and once it was given, a notice of dissatisfaction and intention to commence arbitration followed. As shown in Figure 28, Window 2, unlike Windows 1 and 4, was not actively employed by the parties. The 56 days allowing for amicable settlement were triggered, and they elapsed without reaching any agreement, although several meetings were held during this period. The construction of the project was completed and the Defects Liability Period elapsed, however the claim case

was not yet settled, nor did any party file for arbitration. The Employer returned the performance security to the Contractor, however the Contractor did not submit a discharge, and thus the contract closeout was not officially achieved.

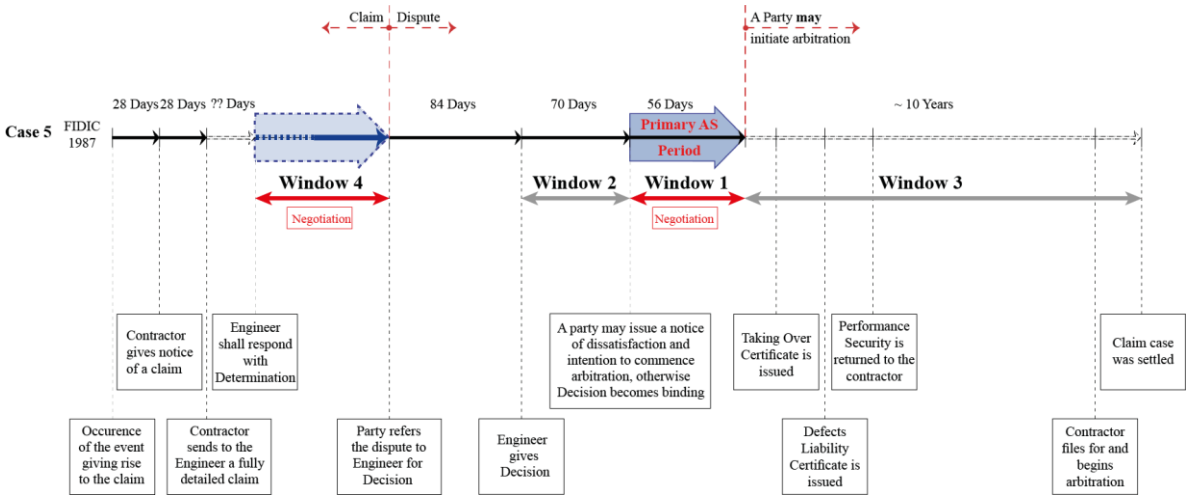

Figure 28: Case 5 Claim/Dispute Timeline

According to the prevailing laws in the country of the concerned project, a statute of limitation exists by which a party loses the right to seek a remedy or recover compensations concerning a claim ten years after the occurrence of event that gave rise to the cause of action. This statute restricts the time within which legal proceedings may be brought. Although the Contractor did not take action promptly, he still intended to take advantage of his legal rights. As such, he filed for arbitration during the last year of this ten-year period, specifically a few months before the expiry of this period. No notice prior to commencing the arbitration procedure was required by contract, and so the Employer,

who had long dismissed the matter of this particular claim regarding the given project, was quite shocked to find out he was being taken to arbitration ten years later. The dispute resolution clauses of the contract had initially stated that arbitration be administered by a panel of three arbitrators. However the Owner and Contractor mutually agreed to appoint one sole arbitrator. An arbitration ruling was given regarding this particular case, and the Employer, being a top-ranked financial institution in the project locality, accepted to honor the settlement without the Contractor having to resort to the concerned court in order to cause payment by the Employer.

The importance of this case lies in understanding the implications of having an upper bound on the period under Window 3. In this case, the upper bound was specified by the governing laws, and identified a ten-year period as a limitation. Window 3 extended over this entire period with no negotiations or discussions occurring because the employer was not aware such an issue was still at hand. If the particular conditions do not specify an upper bound on the resolution of such disputes, the matter will not be closed out unless by the virtue of the prevailing laws and the relevant statute of limitation. The claim described above was arbitrated ten years after the Engineer's Decision was given, and the project was operational throughout this entire period. Alternative Dispute Resolution methods were not employed effectively. The meetings and negotiations that took place did not result in an agreement, and the parties did not choose to resort to outside assistance.

4.2.6. Case 6

The sixth case under study involves a residential building and is based on a FIDIC 1994 subcontract, with back-to-back terms regarding the notices and submission of

particulars. As mentioned in the clauses of the subcontract, whenever the General Contractor is required by the terms of the Main Contract to give any notice or other information to the Engineer or to the Employer, the Sub-Contractor shall also afford the Contractor any required information and assistance, and shall do so within sufficient time. As such, the Sub-Contractor is allowed less than 28 days to submit a notice of a claim, and a similar time bar for the submittal of any particulars needed. The Engineer is then to give a determination regarding the matter. The clause pertaining to Settlement of Dispute clearly states *"if and when a dispute arises between the two parties, then the Contractor or Subcontractor may give a notice of such dispute to the other party. The parties shall attempt to settle the matter amicably over the next fifty-six days, before the commencement of arbitration. If this period expires without an agreement being reached, one or more arbitrators shall finally settle the dispute under the Rules of Conciliation and Arbitration of the International Chamber of Commerce."*

The Subcontractor filed for a claim related to an Extension of Time and another claim related to Variation Orders. He involved external assistance in the form of a project management firm in order to help with the formulation of the claim case, and did so at an early stage. Dissatisfaction of the Subcontractor with the Engineer's determination caused the matter to escalate into a dispute, and triggered the start of the 56-day period allowing for amicable settlement. As shown in Figure 29, some negotiations took place during this period, but the parties did not reach an agreement.

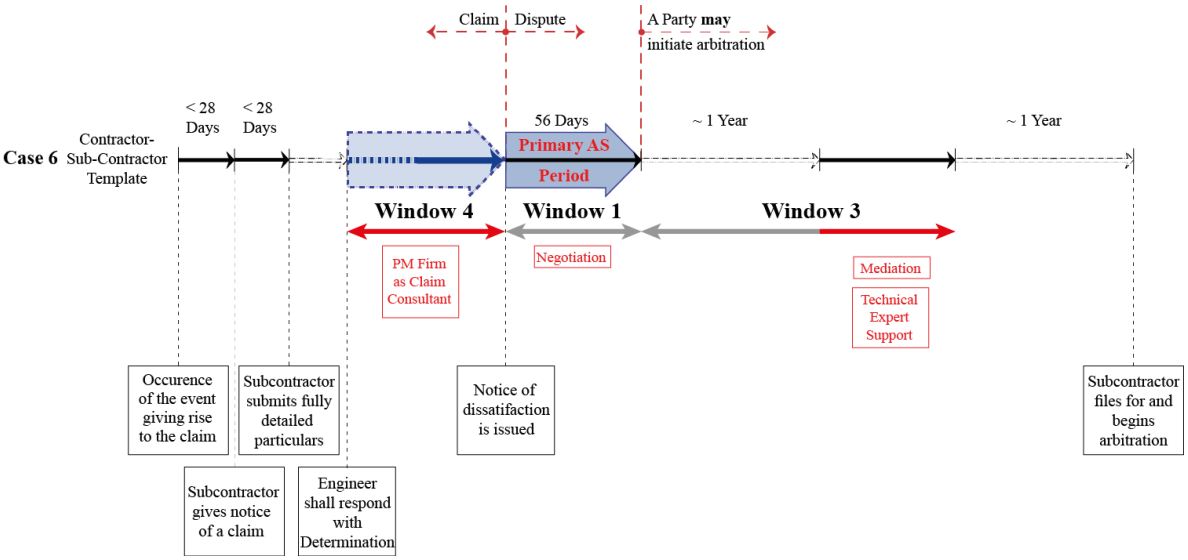

Figure 29: Case 6 Claim/Dispute Timeline

One year after the expiration of the amicable settlement period, and although mediation was a procedure that was outside the stipulated conditions of contract, the parties mutually agreed to involve a mediator and attempt this Alternative Dispute Resolution method. However, the parties failed to converge, and this procedure also ended without any settlement being achieved. It is observed that the General Contractor did not truly go through mediation in good faith, and it is postulated that wanting to exhaust the Subcontractor through such procedures might have been the General Contractor's ulterior motive. The success of mediation is not guaranteed, and depends on the attitudes of the parties, as well as the skill of the mediator. Within a year of the failure of mediation, the Subcontractor had filed for arbitration, and this procedure was initiated and is still ongoing, with the support from a newly appointed technical expert. The lack of an upper bound on the time allowing the parties to arbitrate the claim at hand served them insofar it allowed

them time to explore alternative methods of resolving their dispute, which would probably not have been possible to conduct within the 56-day period mandated for attempting an amicable settlement. It is to be noted that no extension of the 56-day period had to be formally agreed upon by the parties.

4.2.7. Case 7

Case 7 concerns a claim between a General Contractor and a Subcontractor, with the nature of the claim being very specific to the project at hand. The contract signed between the parties is a Contractor/Subcontractor template, and specifies that the Subcontractor notify the General Contractor of his intention to submit a claim within 28 days of the occurrence of an event. The Subcontractor is then given another 28 days to submit to the contractor full particulars. Once a determination is given regarding the claim, with which the Subcontractor is dissatisfied, a notice of dissatisfaction can be issued. No Engineer's Decision is given; the matter moves directly into an Amicable Settlement stage that is managed between the two parties. This period is stipulated to extend over 90 days; not the usual 56 days. If amicable settlement attempts fail, the parties may initiate arbitration. However, and as a precondition, a notice of intention to commence arbitration should be issued 20 days before this procedure can be started, thus informing the other party they are being taken to arbitration. In the absence of an Engineer's Decision, and similar to Case 2, the matter of the claim moves directly to Amicable Settlement, thus eliminating Window 2. Regarding the claim that will be discussed, the Subcontractor has yet to issue a notice of dissatisfaction with the Engineer's determination, for reasons that will become evident in the following section.

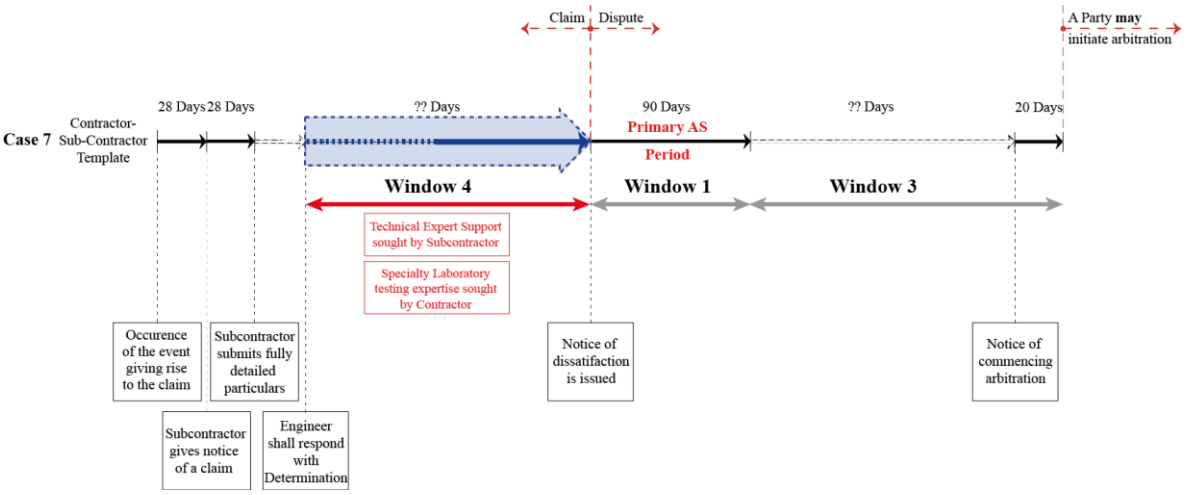

Figure 30: Case 7 Claim/Dispute Timeline

The construction of this project's façades involved the installation of very advanced and technologically complex glazed curtain walls. Based on the employer's request, a closed proprietary specification listed a single supplier for the triple coated silver glass required for the installation of the curtain glass façades. Aluminum Subcontractor was responsible for procuring the abovementioned glass, fabricating the curtain wall panels, and installing them on site with respect to the design requirements. In compliance with the specifications, the Subcontractor acquired the glass from the named supplier. However, in order to meet time requirements, the Subcontractor resorted to two fabricators to cut the glass as per the design. Once parts of the façades were installed, it became evident that differences in the colors of some of the panels existed. A rainbow effect was evident, which was not a reflection of light, but rather a permanent discoloration. The cause of this effect was unknown, but might have been related to the properties of the material itself or the

process involving its cutting into panels. The supplier did not provide instructions concerning the handling of this material or its fabrication into panels. Several problems and limitations were associated with the technology of this relatively new material, which is not yet widely used commercially.

The design consultant responsible for supervising the quality of the completed works and approving payments to the Contractor considered the differences in the colors of the glass panels to be a defect, and as such did not certify payments to the Contractor. Consequently, the Contractor withheld payments owed to the Subcontractor for a large portion of the works completed. As a result, the Subcontractor was unable to issue several payments to the supplier and fabricators. At this point, the Subcontractor filed for a claim for money that is due to him for works completed, but was unpaid. The Subcontractor, as a result of not being paid his dues, was facing some financial difficulties, yet was still expected to complete the installation of the curtain walls.

At the request of the Subcontractor, one of the fabricators then performed an analysis in the form of a discoloration model test of the installed panels, to try and understand the reason behind their tinting. Subsequent to that, the General Contractor appointed a specialty laboratory consultant to conduct a complete survey and produce a preliminary report regarding the matter. Following the analysis done by the external laboratory and the testing done by the fabricator, the reason behind the discoloration was still unclear, and the solution for this issue was not agreed on, which is why the Subcontractor was hesitant to move forward with more works that could be also deemed defective, and therefore not receive payment for them. As such, the Subcontractor considerably decreased his on-site workforce leading to a reduced progress of work.

Concurrent with the problems faced with the Subcontractor, the General Contractor was also confronting problems with the Employer, and was facing the possibility of being terminated by him. In the case where the termination of the General Contractor does occur, a novation agreement will formalize the arrangement to substitute the General Contractor with the Employer in the subcontract. The technological aspect of the claim, in addition to the possibility of the Subcontractor's agreement with the general contractor being reassigned to the employer, were both factors that pushed the Subcontractor away from issuing a notice of dispute and entering into amicable settlement discussions. With regard to this particular case, taking the claim to amicable settlement was not in any way the ideal solution to the problem, seeing as the liability of the general contractor to the claim was not yet clear, and the 90-day period allocated for this process was considered too long by the Subcontractor, who feared the repercussions of such a prolonged negotiation and amicable settlement stage (if no settlement is achieved). The claim, which related to the quality of the final product, was a matter that was draining the Subcontractor financially, causing him difficulties in fulfilling the obligations of the subcontract. In light of the details of the claim and the various difficulties faced, the Subcontractor actually favors continuing the discussions, in hope that a more thorough evaluation of the alleged defects through the appointed specialty laboratory will be authorized by the Contractor, over having to enter a lengthy 90-day period where the evidence which could act in supporting the position of either party is still lacking.

4.2.8. Case 8

The eighth case that was considered demonstrates an amicable settlement attempt that successfully resulted in an agreement. This case regards a subcontract signed between a General Contractor and a Subcontractor for a mixed-use project. The Subcontractor in this case filed a claim against the Contractor concerning an Extension of Time and additional overhead costs associated with both this extension and Variation Orders acknowledged as design changes. The subcontract clauses concerning claims allow the Subcontractor 14 days after occurrence of the event giving rise to the claim to give the Contractor notice of a claim. In the case where the Subcontractor considers himself to be entitled to any adjustment in the Time for Completion and/or Subcontract Price, however fails to give a written notice of a claim within the allowed time, the Contractor may be discharged from all liability in connection with the claim.

Following the submittal of a notice, the Subcontractor is then allowed a period of 14 days to submit full particulars. The Contractor shall then give a Decision regarding the matter of the claim, within reasonable time. The Subcontractor may, within 7 days after receipt of the written decision, express his dissatisfaction with the decision by sending a notice of Dispute to the Contractor. The Contractor is then given 50 days to reply to this dispute. The parties are then allowed a period of 28 days to attempt settling this dispute through amicable settlement, after which, and if the dispute has not yet been settled, either party may refer the matter to arbitration. The Subcontractor, when submitting the notice and particulars, did not adhere to the specified time-bars. However, the Contractor did issue a decision with regard to the claim, and negotiations regarding this decision were unsuccessful in resolving the issue. The Subcontractor refrained from referring the matter

back to the Contractor in the form of a Dispute. The claim-dispute timeline regarding this case is illustrated in Figure 31 below:

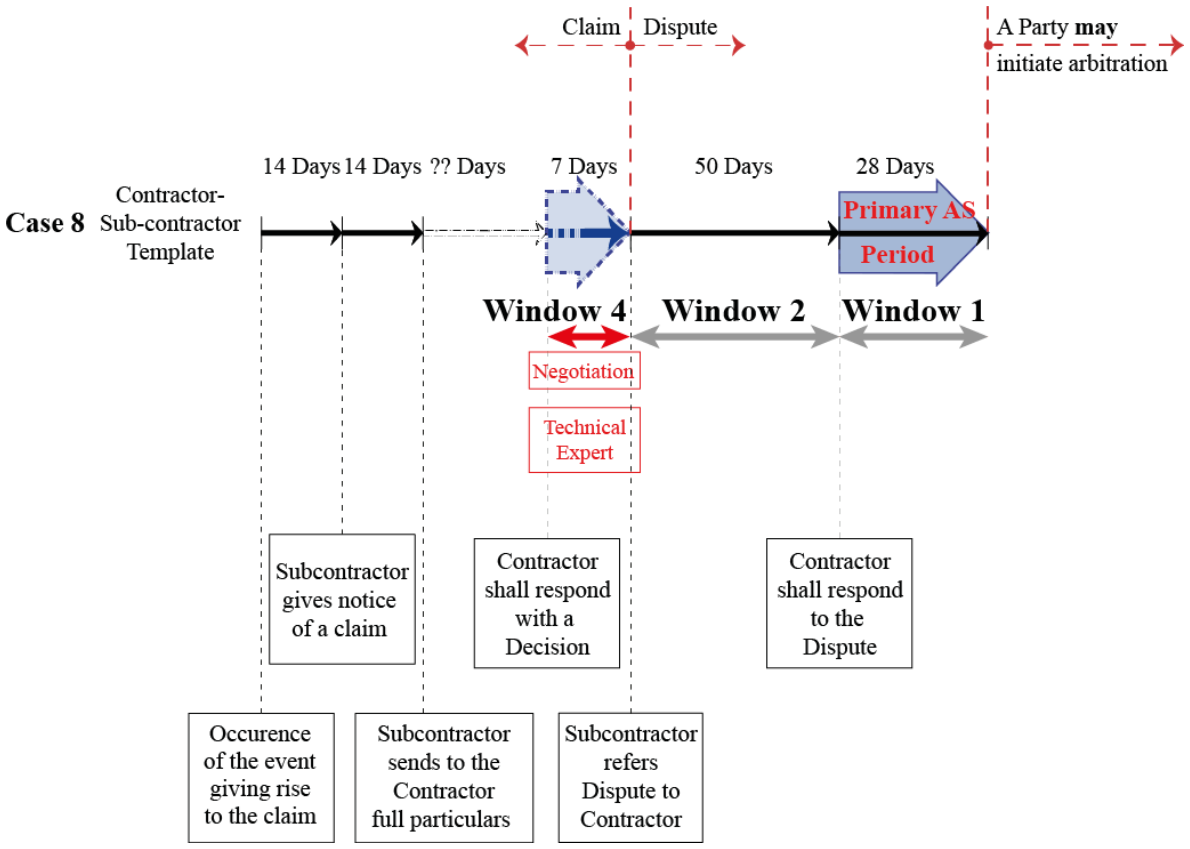

Figure 31: Case 8 Claim/Dispute Timeline

At the end of the project, and when preparing his final account, the Subcontractor's requested sum was different from the amount certified by the Contractor, and this is related to the number of claims that had remained unresolved. This difference between the requested amount for payment by the Subcontractor and amount of payment certified by the Contractor was the subject of the negotiations between the two parties. The

Board of the Subcontracting Company, and in deciding whether to issue a notice of Dispute or to accept the payment offered by the Contractor, resorted to the assistance of a project management and contracts specialist. This outside specialist was asked to assess the situation with the eye of an arbitrator. His evaluation mentioned that given the stringent contract language and given the failure of the Subcontractor to satisfy notices on several occasions, the chances of achieving any desirable level of success through arbitration are slim. The expert advised the Subcontractor to accept the payment offered by the Contractor, even though it was less than the claimed amount. This offered settlement was viewed as worthy of a thoughtful acceptance consideration, and as such a settlement was achieved prior to going to arbitration. Although the Subcontractor initially planned on rejecting the offer and proceeding to arbitration, the claim consultant was able to convince the subcontractor otherwise.

4.2.9. Case 9

Case 9 in the series of case studies that were presented concerns a subcontract between a Contractor and a Sub-contractor that is based on a template. According to the subcontract conditions, the Sub-contractor is to give written notice to the Main Contractor of his intention to claim within 14 days from the start of the incident. 14 days from the referral of this notice, the Sub-contractor is required to send to the Contractor complete particulars of his claim for loss and expense along with all necessary calculations to substantiate this claim. If the Sub-contractor fails to submit a notice of a claim and/or supporting particulars within the stated time, he is thus deemed to have waived his right for loss and/or expense. If further particulars are required, the Sub-contractor is allowed 7 days

to submit them. The Contractor is then given 21 days to issue a determination regarding the matter of the claim. On this particular project, which was a mixed-use (commercial and residential) complex, the Subcontractor filed for a claim resulting from several causes including money related to work done for which he was not paid, variation orders, and Extension of Time. Some time after the Sub-contractor had submitted the notice of claim and all corresponding particulars, the Main Contractor's contract with the Employer was terminated. In turn, the Main Contractor suspended the Sub-contractor. In fear of the Contractor liquidating his performance bond, the Sub-contractor filed for a request to freeze the calling of this guarantee with the proper authority.

In order for the concerned court to keep the freeze on the Performance Guarantee, the Sub-contractor had to file a claim against the Main Contractor, which he did. Following this occurrence, the Main Contractor revoked his suspension of the Sub-contractor, although still not having paid him his dues. The Sub-contractor did not respond to this by mobilizing and resuming the works, but, instead, suspended himself. At this point, the Main Contractor had given the Sub-contractor an instruction to remobilize, and considered the Sub-contractor to have abandoned the work. The Sub-contractor attempted to resort to amicable settlement, however this clause had been rendered inapplicable due to the fact that the Sub-contractor had already resorted to litigation and filed a claim against the Contractor in an attempt to freeze his Performance Guarantee. As such, the Amicable Settlement clause had been rendered void, and was no longer a possibility in this case.

With regard to this project, the particular conditions agreed to by the parties when drafting the contract terms linked the start of the amicable settlement period to the date on which the parties first met (after the notice of dissatisfaction is issued). This kind of trigger

for the start of the amicable settlement period is regarded as a detrimental practice, seeing as proving such a meeting occurred is difficult. Another particular condition of this project involved issuing a notice 28 days prior to commencing arbitration, which is regarded as an instrumental practice, as it acts as a warning for the party being taken to arbitration. Figure 32 illustrates the timeline corresponding to this project:

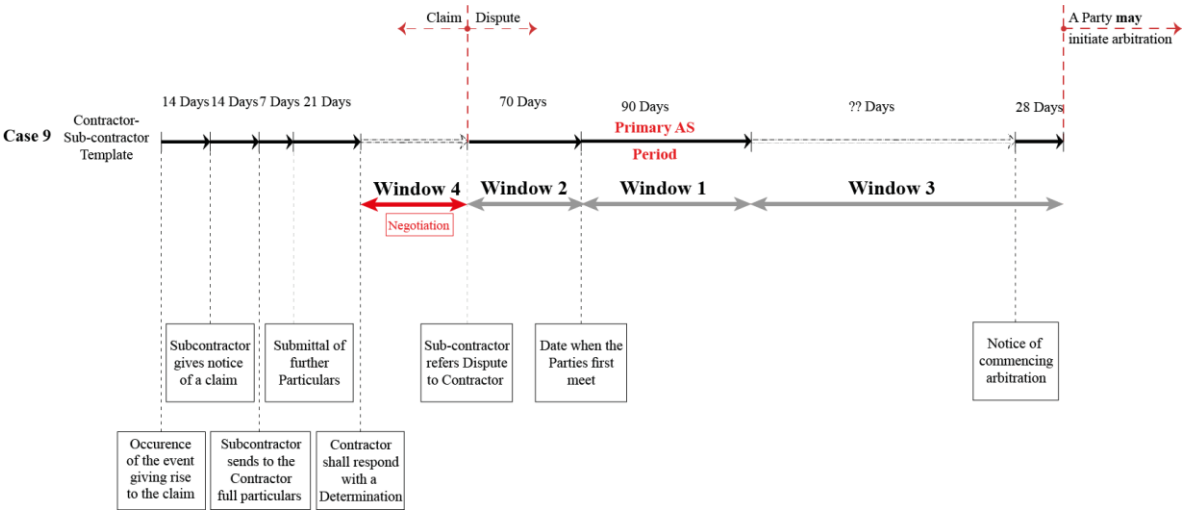

Figure 32: Case 9 Claim/Dispute Timeline

4.3. Comparative Analysis of Cases

Based on the cases' procedures, happenings, and respective timelines, the following comparative table was produced to illustrate the steps that were taken with regard to each claim presented. The table highlights whether an Engineer's Determination was given and which (if any) ADR methods were applied during Window 4. It also shows whether the claim escalated into a dispute by the request of an Engineer's Decision or the expression of dissatisfaction with the determination given. Where applicable, the table

demonstrates how the parties engaged Windows 2, 1, and 3. In addition, any pre-conditions to the commencement of arbitration, as mentioned in the clauses of the cases' contracts, are stated. The table also mentions whether or not the case was settled amicably, whether or not arbitration was actually commenced, as well as the current situation of the claim/dispute/arbitration case.

It is noted that almost all the cases engaged Window 4, and that negotiation was the most commonly used ADR method during this phase. Some Subcontractors also resorted to outside consultants at this stage. An Engineer's Decision was called upon in two of the cases. A notice of dissatisfaction was communicated on two other cases, thus raising the dispute to a management committee. Window 2 is eliminated from the dispute timelines of Cases 2 and 6, seeing as the notice of dissatisfaction directly triggers the start of the amicable settlement period. Where Cases 1, 3, and 7 are concerned, an Engineer's Decision is yet to be called upon, for different reasons. Case 4 is the only case whereby the parties mutually decided to extend the 56-day period by another 28 days to allow negotiations and amicable settlement attempts to continue. Window 1, which is the primary period for attempting amicable settlement, is often engaged by means of negotiation and resorting to external technical and/or legal advice. In Case 6, Window 3, which involved a lot of negotiation, also involved mediation. Negotiations and attempts at settling amicably are still ongoing on cases 1, 3, 4, and 7. Case 6 is currently going through arbitration proceedings. Finally, Case 5 is the only case to have produced a settlement agreement in the form of the actual court verdict, but that the parties themselves enforced.

Table 3: Comparative Data of Cases

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Determination	Yes	Yes	Yes/ Very Late	Yes	Yes	Yes	Yes	Yes	Yes
Window 4	Negotiaiton	No	No	Negotiation	Negotiation	Negotiation/ PM Firm/ Claim Consultant	Negotiation/ Specialty Consultant	Negotiation/ Claim Consultant	Negotiation
Decision	No	N/A	No	Yes	Yes	N/A	No	No	No
Management Committee	N/A	Yes	N/A	N/A	N/A	Yes	N/A	N/A	N/A
Window 2	N/A	N/A	No	Negotiation/ Technical Expert	No	N/A	N/A	N/A	No
Amicable Settlement	56 Days	84 days	56 Days	56 Days	56 Days	56 Days	90 Days	28 Days	90 Days
Extension by Mutual Consent	N/A	No	N/A	Yes + 28 Days	No	No	N/A	N/A	No
Window 1	N/A	Negotiation	N/A	Negotiation/ Technical Expert	Negotiation	Negotiation/ Technical Expert	N/A	N/A	No
Window 3	N/A	Negotiation/ Legal Expert	N/A	Negotiation	No	Mediation	N/A	N/A	No
Pre-condition for Initiating Arbitration	56 Days	Issuance of Taking Over Certificate	56 Days	56 Days	56 Days	56 Days	20 Days Notice Period	28 Days	28 Days Notice Period
File for Arbitration/Litigation	N/A	Yes	N/A	No	Yes	Yes	N/A	N/A	Yes
Settle before Arbitration/Litigation	N/A	Yes	N/A	No	No	No	N/A	Yes	No
Commence Arbitration/Litigation	N/A	No	N/A	N/A	Yes	Yes	N/A	N/A	No
Ongoing	Negotiaiton	No	Claim	Negotiation	No	Arbitration	Claim	No	Yes

4.4. Detrimental and Instrumental Practices

Several practices that were detrimental to the dispute resolution process in specific and project success as a whole can be inferred from the cases mentioned above. Although the cases under study are related to individual projects and particular conditions, the recommendations derived from them can be applied generally to most construction projects. This section shall specify the detrimental practices encountered throughout the projects mentioned, as well as list some of the instrumental practices and preferred approaches.

4.4.1. Properly Addressing Claims

Submitting the notice and complete particulars regarding a claim within the allowed time period permits the Engineer to give a determination within reasonable time, and also preserves the Contractor's right in pursuing such a claim. Case 3 exemplifies a situation where the further particulars requested of the Contractor by the Engineer were submitted during the Defects Liability Period. This delay in addressing the claim caused Window 4 to start at a very late stage along the project timeline, thus allowing the elapse of a long period of time without any progress regarding the matter. Properly addressing claims, in terms of respecting the time bars on submitting notices and particulars is a practice that should be realized by Contractors who wish to pursue such claim. It is also the responsibility of the Engineer to give impartial determinations within reasonable time. Some particular conditions of contract might state that failure of a contractor to submit notices and particulars within due time causes him to lose his right to pursue such a claim. Such conditions could put the contractor at risk, as agreeing to and signing such conditions could be regarded as a waiver of rights, and may be considered to be a detrimental practice.

4.4.2. Effectively Employing Window 4

The cases presented above demonstrate that negotiations can be initiated when the matter is still considered a claim, and has not yet developed into a dispute. Once an Engineer's determination is issued, the parties are given the chance to consider such a determination, and negotiations can start as early as Window 4, as was the situation in many of the cases presented. Window 4 can be effectively engaged in attempting to resolve the matter, prior to any party requesting an Engineer's Decision. This is shown in Case 1,

whereby the parties held several meetings after the Engineer's determination was given, to discuss the matter at hand. It is observed that negotiation is a very common method used by the parties when first addressing the claim. This is not surprising, seeing as this ADR method is nonbinding, affordable, and practical.

The parties may also choose to engage outside consultants such as a Project Management firm, claim consultant, or specialty consultant, as was seen on Cases 6 and 7. Resorting to the assistance of outside parties at this early stage could prove to be helpful. A party may resort to an external evaluation of their position regarding the claim case as a preparatory measure prior to requesting an Engineer's Decision. As such, engaging in negotiations early on and resorting to outside assistance are instrumental practices that the parties might employ, thus making use of Window 4. However, and as was shown in Cases 2 and 3, several practices can render Window 4 ineffective. Directly requesting a decision after a determination is given eliminates the presence of Window 4 along the timeline, thus removing the possibility of any negotiations occurring during this period. In addition, allowing a lot of time to elapse before requesting a decision and not attempting any communication or negotiations during this period could impractically extend Window 4, and render this extension ineffective.

4.4.3. Requesting an Engineer's Decision

Being reluctant to request an Engineer's Decision can indicate the parties' understanding of the seriousness of this step, and their awareness of the possibility to negotiate the matter before requesting such a decision. As highlighted in Table 2, the

Contractor/Subcontractor chose to postpone the request of an Engineer's Decision on each of Cases 1 and 7. The reasons behind this postponement included:

- Wanting to maintain good relationships with the Employer, in hope of collaborating on future projects (Case 1)
- Fear of eventually going to arbitration and doubts regarding the neutrality of the arbitrator assigned to the case (Case 1)
- Influential status of the Employer (Case 1)
- Not wanting to waste more time waiting for the elapse of the Amicable Settlement period and initiation of arbitration, due to financial concerns and other difficulties faced (Case 7)
- Seeking a fast solution (Cases 1 and 7)

Postponing the request of an Engineer's Decision can be considered an instrumental practice when the parties are truly engaging other methods (such as negotiation and facilitation) and are actively employing Window 4 in attempting to reach an agreement. Once an Engineer's Decision is requested, the matter is thereon considered a dispute. The binding nature of the Engineer's Decision and the possibility of eventually ending up in arbitration if such a Decision is rejected are both matters that should be considered seriously by both parties when contemplating requesting a Decision. In the case where no communication is taking place after the determination is given, and in fear of

allowing Window 4 to extend impractically without any progress, requesting an Engineer's Decision could be considered as an instrumental practice.

4.4.4. Start of the Amicable Settlement Period

Associating the start of the amicable settlement period to an event such as the first meeting of the disputing parties can prove to be a detrimental practice. If the parties fail to meet, then the 56-day period is not triggered, and consequently the condition precedent for commencing arbitration is not fulfilled, which may prevent the parties from going to arbitration. In case the event or action that triggers the start of the 56 days does not occur or can not be proven to have occurred, such a particular condition becomes disadvantageous to the process of amicable settlement, and thus fails to meet the purpose of this period. If the condition to trigger the start of the amicable settlement period is, for example, the first meetings of the parties, then documenting and proving the occurrence of this meeting becomes an issue of concern. In the case where the period stipulated in the contract clauses can not be ensured to have elapsed, this could be regarded as an opportunity for parties seeking to delay an arbitration claim for tactical reasons, which could be regarded as a detrimental practice.

4.4.5. Preconditions to the Initiation of Arbitration

Some contracts specify in their particular conditions that in the case where a dispute arises between the parties, and an Engineer's or DAB's Decision is not accepted by either of the parties, and there is an intention to proceed to arbitration, the process of

arbitration cannot be commenced until *after* a certain condition is met. Such preconditions include:

4.4.5.1. Elapse of 56 days (or other)

The primary precondition to the commencement of arbitration, as mentioned in the FIDIC conditions of contract, is the passage of a 56-day period, after which arbitration may be commenced, whether or not any attempts at amicable settlement are made. This pre-condition is observed on cases 1, 3, 4, 5, and 6, and is regarded as an instrumental one as it gives the parties a last chance to try and reach an agreement. However, where case 7 is concerned, a 90-day mandatory period for amicable settlement followed by a notice to be given 20 days prior to the commencement of arbitration were both pre-conditions that caused the Subcontractor to shy away from requesting an Engineer's Decision, in fear that such procedures might extend considerably and uselessly. The Subcontractor in this case, and due to the financial issues he was facing, feared going through a lengthy dispute resolution processes whose outcomes were not guaranteed. Due to the specific details and the nature of the claim on case 7, this stance is not the norm. However, it is important to mention that while the mandatory 56-day period is put in place in hope that the parties try to resolve the matter amicably, such a pre-condition may prove to be disadvantageous to parties who are seeking a speedy resolution.

4.4.5.2. Issuance of a Major Certificate

Tying the commencement of arbitration to a major event along the project timeline, such as the issuance of the Taking-Over Certificate, could actually create a

lengthy period prior to the initiation of arbitration. Such a period can extend considerably, and may put the contractor under financial distress. If the worth of the compensation in dispute is a large sum that is needed by the contractor to continue funding the construction of the project, postponing the initiation of arbitration of the dispute means postponing the chance of receiving any reward, which might cause the contractor to reach the verge of bankruptcy, as was the situation of the Contractor in Case 2. This is a detrimental practice that is advised against. Such particular conditions that postpone the commencement of arbitration till very late along the project timeline should be carefully considered when agreeing to the terms of a contract, as they might put the parties at a disadvantage if and when disputes arise and fail to settle amicably.

4.4.5.3. Issuance of a Notice Prior to Initiation of Arbitration

It was observed that some particular conditions stipulate the issuance of a notice prior to the commencement of arbitration. Such a notice serves to inform the other party, the one being taken to arbitration, that such a procedure is to begin within the given number of days. The situation in Case 5 involved a contractor reviving a claim case almost ten years after the occurrence of the event. The Employer, who had disregarded the matter of the claim long ago and had released the retention payment to the contractor, was surprised to be taken to arbitration at such a late stage. The implementation of a notice period prior to the commencement of arbitration could serve to avoid such surprises and extend the effective period allowing for amicable settlement. Once the matter becomes clear that arbitration is to actually commence on a given date, this could be an incentive for the parties to play their last cards, attempt to compromise, and perhaps reach and sign an

agreement before arbitration procedures actually commence. As such, mandating a notice period prior as a pre-condition to the initiation of arbitration could prove to be an instrumental practice.

CHAPTER 5

PROPOSED GUIDELINES

5.1 Preamble

By deriving from the cases above the various factors/ practices that may act as a hindrance to effective amicable settlement, a list of recommendations and lessons learnt can be proposed. A coordination between the ADR methods and the various windows allowing for amicable settlement will be proposed. This chapter will offer a set of guidelines for drafting amicable settlement clauses, and identify an applicable procedure/mechanism of conduct that specifies the start of the amicable settlement process, regulates its length and progression, and defines the end of this time period. A protocol of deliberations and best practices to effectively govern the amicable settlement process will also be specified.

5.2. Applicability of Expertise and ADR Methods

Disputes inevitably happen in construction projects. The various alternative dispute resolution methods discussed in the previous chapter can be effectively applied during the time windows highlighted in section 3.5. These include but are not limited to: negotiation, facilitation, conciliation, mediation, mini-trial, early neutral evaluation, and med-arb. Given the nature of a dispute, the involved parties must consider various factors when deciding on which ADR method to resort to, and how such factors influence and perform in terms of their specific dispute (Haugen 2014). The following section will examine these factors and specify when and how the various ADR methods may best be

utilized based on a reading of the literature review and conclusions derived from the analysis of the case studies.

5.2.1. Factors Affecting the Choice of ADR

A wide variety of processes, practices, and techniques fall within the definition of alternative dispute resolution. The choice of dispute resolution method is not always obvious, and attaining the most appropriate resolution strategy is related to the nature of the dispute and the condition of the relationship between the parties, as well as their attitudes towards resolving the dispute. The importance given by the parties of a dispute to different factors affect the choice of the ADR method(s). Such factors include: degree of formality, process of proceedings, confidentiality, preservation of relationship, degree of control by parties, and cost and time, among others.

5.2.1.1. Duration and Cost

In an industry where time and cost are related, the longer a dispute is allowed to progress, the more costly it is for the parties. Factors such as time and cost often push the parties to a dispute in the direction of a speedy resolution. Spending a lot of time and money battling out a claim case is not the most desirable option, which is why ADR methods have proven to be favored over arbitration or litigation (Cheung, Suen, and Lam 2002). Some legal advisors criticize the process of attempting to resolve disputes through ADR methods as a waste of time, claiming that the same time could be spent pursuing the claims in court, where negotiation also plays an important role and litigants are protected by formal rights, procedures, and rules. However, arbitration and litigation involve formal

legal procedures and are considered more costly in time and money because of the elaborate procedures they involve. Bristow and Vasilopoulos (1995) determined that litigation costs could in some cases reach as high as the claimed amounts. In addition to generally being less costly and time-consuming, ADR methods also offer the parties more flexibility and control, as will be clarified in the coming sections.

5.2.1.2. Flexibility and Degree of Control

Some ADR methods such as mediation and dispute advisors are regarded as flexible because the parties can customize the contents of proceedings to best suit their needs. This flexibility for change in the content of the proceedings and in the strategies adopted is often seen as an important factor in helping the parties reach an agreement. Different ADR methods allow the parties different levels of control over how their dispute is handled. The degree of control the disputants have over the resolution process, how binding the solution is, and how much power and control a third-party has are all factors that should be taken into consideration when choosing a suitable ADR method. For example, in negotiation, the disputants have total control over the pace of the process and the content shared, whereas third parties exercise more control during med-arb and mini-trials (Haugen 2014). Other factors the parties should consider are how much time the respective ADR method might require and what degree of formality this method might result in. Negotiations might not result in any formal settlement, however, mini-trial and med-arb result in a decision that is binding on both parties.

5.2.1.3. Confidentiality

To some parties, wanting to keep the matter and details of their dispute private is a key factor in the selection of a method of dispute resolution. Often times, a dispute that is made public can negatively affect the involved parties' reputations. Some ADR methods such as mediation and negotiation require the parties to sign an agreement stating that information or materials shall not be disclosed without the parties' consent (Cheung, Suen, and Lam 2002). While some court hearings are public, mediation remains strictly confidential. Confidentiality is an important factor in mediation, so much so that in most cases the mediator cannot be forced by the legal system to testify in court as to the content or progress of mediation.

5.2.1.4. Preservation of the Relationship

The desire to preserve the relationship between the disputing parties affects the selection of the dispute resolution strategy. If the parties involved in a dispute have previously worked together and/or hope to collaborate on other projects in the future, then escalating the degree of hostility between them is not something they want. As such, they must be attentive in selecting the most appropriate ADR method to resolve their differences. Adversarial tension is less likely when resolution strategies such as negotiation and mediation are selected, because the parties aim at reaching a "win-win" settlement. In arbitration and litigation, the trial often ends with one party emerging as the "winner" and the other as the "loser", which might cause a rift to develop in the business relationship between the parties. If the disputants wish to maintain a long working relationship, an ADR

method that allows the parties to settle without damaging this relationship must be selected (Haugen 2014).

5.2.2. Dispute Resolution Strategies

Several strategies can be followed when attempting to resolve a dispute. Partnering or negotiating between the project participants is usually the first step in the resolution process. If negotiations fail to provide the disputants with a satisfying agreement, they can seek consultation from a third-party neutral or dispute resolution advisors. Mediation can then be attempted to give a nonbinding resolution, or med-arb can be opted to render a binding settlement. In case these methods fail to resolve the disputes amicably, the dispute may be referred to a third-party for an adjudicative binding decision through either arbitration or litigation (Haugen 2014).

A summary of the characteristics of each of the Alternative Dispute Resolution methods is provided in Table 3 below. Negotiation, facilitation, conciliation, adjudication, mediation, and arbitration are each classified according to factors related to the nature of each method being: binding, formal, documented, and/or confidential. These characteristics will all affect the choice of ADR method to be used, as will be demonstrated in section 5.2.3. Table 4 specifies the possible involvement of various parties in these ADR methods. Whether contact and direct communication between the disputing parties is taking place, whether an outside third-party such as facilitator, conciliator, mediator, or adjudicator is assisting in the process, and whether legal advice can be sought while resorting to each of the methods are all characteristics that are highlighted below. For example, during facilitation, a facilitator meets with the parties together and assists them throughout their

deliberations; however this process is informal, cannot be documented, does not produce a binding agreement, and is confidential.

Table 4: Characteristics of the Proceedings of ADR Methods

	Formal	Proceedings Documentation	Proceedings Confidentiality	Binding
Negotiation	No	No	Yes	No
Facilitation	No	No	Yes	No
Conciliation	No	No	Yes	No
Adjudication	Yes	Yes	No/Yes	Yes*
Mediation	Yes	No/Yes	Yes	No/Yes**
Arbitration	Yes	Yes	Yes	Yes

*If not objected to by any of the parties within a stipulated time bar

**Under certain jurisdiction

Table 5: Involvement of Various Parties in ADR Methods

	Third Party Assistance	Contact with Disputants	Expert Opinion (Legal/Technical)	Legal Counsel Active Participation
Negotiation	No	Self-managed	Possible	Possible
Facilitation	Yes (1)	Individual/Joint	Possible	Possible
Conciliation	Yes (1)	Individual/Joint	Possible	Possible
Adjudication	Yes (1 or 3)	Joint	Possible	Possible
Mediation	Yes (1)	Individual/Joint	Possible	Desirable
Arbitration	Yes (1 or 3)	Joint	Required	Required

5.2.3. Timeline Windows and Practices

Various factors characterize disputes. The variety of the situations and projects and the diversity of the disputants themselves will all affect the duration and complexity of a dispute. The suitability of a particular form of ADR depends on several factors and dispute characteristics including the nature, sources, and value of the dispute, the cost and duration of the method, the desired outcome, corporate relationships, priorities of the disputants, among others. The choice of ADR method should be mutual, with both parties willing to submit their dispute to such a method and third-party (if one is involved). This section will provide an intersection between the ADR methods and Windows in such a way that permits effective resolution procedures.

5.2.3.1 ADR Methods during Window 4

Window 4, which chronologically comes first on the claim-dispute timeline, is the period when the parties have the chance to settle the matter before it evolves into a dispute. During this period, tension levels are usually not high, and communication channels are still open. After the submission of the claim and particulars by the Contractor, the Engineer consults with both parties regarding the conflict at hand, in an attempt to reach an agreement. During such consultations, negotiation plays an important role in helping the parties see eye to eye. Negotiation is an ADR method that could help the parties to reach a mutually satisfactory agreement through informal and unstructured discussions at this stage in the timeline. This method does not impose any result on the parties, thus allowing them to remain in control of the outcome. If an agreement cannot be reached through negotiations at this stage, the Engineer is required to make a determination, which requires the Engineer to consult with both the Employer and the Contractor. Negotiations may be resumed after the determination is issued, before the matter evolves into a dispute. No outside party is involved in negotiations, and this process is the least confrontational among the ADR methods, as it is not bound by any legal procedures. The parties are free to engage a neutral party (such as a facilitator) to assist in the negotiations, however such discussions between the parties can happen with or without the assistance of a third-party.

The cases presented in the previous chapter confirmed negotiation as the most commonly used method throughout Window 4. On Cases 1, 4, 6, and 7, Window 4 extended effectively over a considerable period of time, and involved outside consultants in the forms of a Project Management firm, technical consultant, claim consultant, and

specialty consultant. Although none of the parties actually sought the assistance of a facilitator, the Contractor on Case 1 is currently considering this option. Facilitation could prove to be an effective ADR method at this stage. The aim of involving a facilitator during Window 4 is to resolve the matter in dispute in the least costly and confrontational manner by generating creative solutions and developing a strategy that allows the stakeholders to fulfill their vested interests.

5.2.3.2. ADR Methods during Window 2

Most of the cases did not employ ADR methods during Window 2. Cases 3 and 7, which do not involve an Engineer's Decision but rather directly jump to the amicable settlement period, do not encompass Window 2 along their timelines. Case 4 did involve negotiations and expert technical advice during this stage, however for a very brief period, seeing as the notice of dissatisfaction with the Engineer's Decision was communicated almost directly. On the remaining cases, no communication between the parties took place until the start of the amicable settlement period. Although not much enactment took place during the Window with regard to the cases, negotiation and facilitation still stand as effective ADR methods that could be applied along this stage.

5.2.3.3. ADR Methods during Window 1

Window 1, which is the primary period allocated for amicable settlement, can also involve negotiation and facilitation, as well as conciliation and mediation. The FIDIC conditions of contract do not specify any method for attempting to resolve the matter amicably throughout this window of opportunity. However, this is the time for the parties to

deliberate regarding the decision issued by the Engineer or DAB. This period follows the issuance of a notice of dissatisfaction by one of the parties. As such, the parties may meet to try and understand why such a notice was issued, and what can be done to satisfy both parties, thus preventing arbitration. Compromise in such a situation is inevitable, and negotiation, facilitation, and mediation can all be used throughout this period. The choice of the ADR method depends on the attitudes and condition of the relationship among the parties to the dispute. If communication channels are still available, negotiations and facilitation can be effective. As noted from the cases, the involvement of external technical experts at this stage in the dispute is very common.

If negotiations and facilitation fail to result in an agreement at this stage, the disputants could seek consultation from a third-party neutral. "Assisted negotiation" or mediation could be the next step. Mediation is used after the dispute's tension has escalated following the exhausting of the less formal methods and as a last resort before proceeding to arbitration. Although mediation is often regarded as the last step before proceeding to arbitration, and, as such, is more suitably assigned along Window 3, this method could prove effective throughout the 56 days (and their possible extension) of Window 1, if the relationships between the contractual parties are still not highly strained, tension levels have not reached their highest, and the parties are both willing to collaborate in hope of reaching an agreement. The disputants agree to involve an impartial third-party, the "mediator", who is responsible for facilitating negotiations between them. The mediator usually has a legal background, or sufficient knowledge of both legal and construction aspects of the dispute, which are traits desired by the parties who want the matter to be settled fairly, without having to resort to arbitration. Mediation is a more formal process

than facilitation, and can result in a binding agreement. The parties could allow the passage of the 56 days without exerting any effort to attempt amicable settlement.

5.2.3.4. ADR Methods during Window 3

The phase extending after the 56-day period, under Window 3, is perhaps the time when tension among the parties has reached its highest, and it is also the last chance for the parties to resolve their dispute amicably prior to the start of arbitration. During this last period, mediation is perhaps the most effective ADR method to resort to. This process, which is a formal and confidential procedure, can also be enforced by law. It allows the parties to a dispute, guided by a mediator, to engage directly in exploring alternatives and attempting settlement. If mediation does not result in an agreement, the parties might resort to other ADR methods that result in a binding reward, such as med-arb, in an attempt to settle the matter outside of courtrooms. Some contract forms mandate mediation as a procedure prior to the commencement of arbitration. As such, the parties are required by contract to attempt settlement by involving a mediator prior to resorting to arbitration.

5.2.4. Organization of ADR Methods along Timeline Windows

As such, negotiation and facilitation can best serve the parties during Window 4. Conciliation concentrates more on the early stages of negotiation, and is more focused on opening communication channels, bringing the disputants together, and identifying points of mutual agreement, which is why it is recommended to resort to this technique in Windows 1 and 2. On the other hand, mediation is more focused on the later stages of negotiation and involves exploring the weaknesses of each party's position, investigating

areas where the parties are in disagreement but might be persuaded to compromise, and suggesting possible mutually agreeable outcomes, which is why it is recommended to resort to this technique in Windows 1 and 3.

It is important to mention that the disputing parties may also resort to expert support in order to help with the claim case throughout the mentioned time windows. Expert opinions and determinations assist in the dispute resolution process. As demonstrated in the cases, opinions of legal and/or technical experts are often called upon to help assess factors such as the viability of events presumed to have given rise to the claim, the formulated claim rationale and the case's overall strengths and weaknesses for arbitration. A party may resort to an expert's opinion/advice whenever they feel the need to. Expert determination is a consensual process by which the parties agree to refer the matter in dispute to an independent and competent person to decide. The role, power, and jurisdiction of the expert are all governed by the terms of the contract between the parties, who themselves control the process and agree beforehand whether or not they will be bound by the decisions of the expert. Expert determination can provide a binding determination that manages to preserve business relationships and avoid the complicated formal procedures involved in arbitration or litigation. As such, this method could be effective in resolving disputes during Windows 1 and 4.

Mediation or conciliation may be more beneficial forms of ADR in situations where the parties wish to maintain a good relationship. For example, owners and large corporations and contractors who wish to remain on good terms with each other may prefer to keep any ongoing disputes they are involved in confidential, so as to prevent details of such disputes from damaging their reputation. A study by Haugen (2014) demonstrated that

a majority of large business owners concerned with the preservation of relationship, confidentiality, duration and cost would prefer negotiation as a first choice of ADR method. If negotiations fail, mediation is favored as the next step; both of which are methods that have proven to preserve confidentiality. In cases where the dispute concerns a legal issue or one of the parties is under false beliefs of their eligibility regarding their claim and their chances of success in court, early neutral evaluation may be useful. If the nature of the dispute is more technical, and analysis of factual evidence and records is required, resorting to an expert opinion or determination could prove to be most effective.

The following Figures 33 and 34 illustrate the sequence of the various ADR methods, based on both their characteristics presented in Table 4 and the above reading of the applicability of such methods to the various Time Windows:

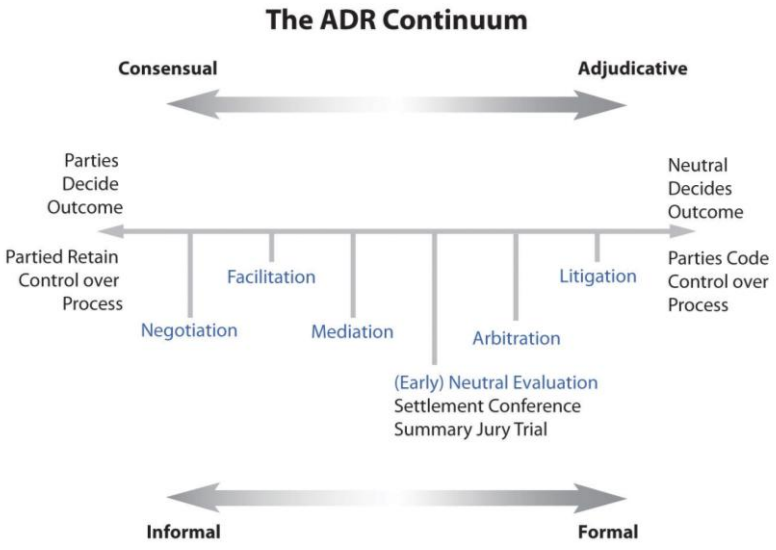

Figure 33: The ADR Continuum (adopted from New.edu)

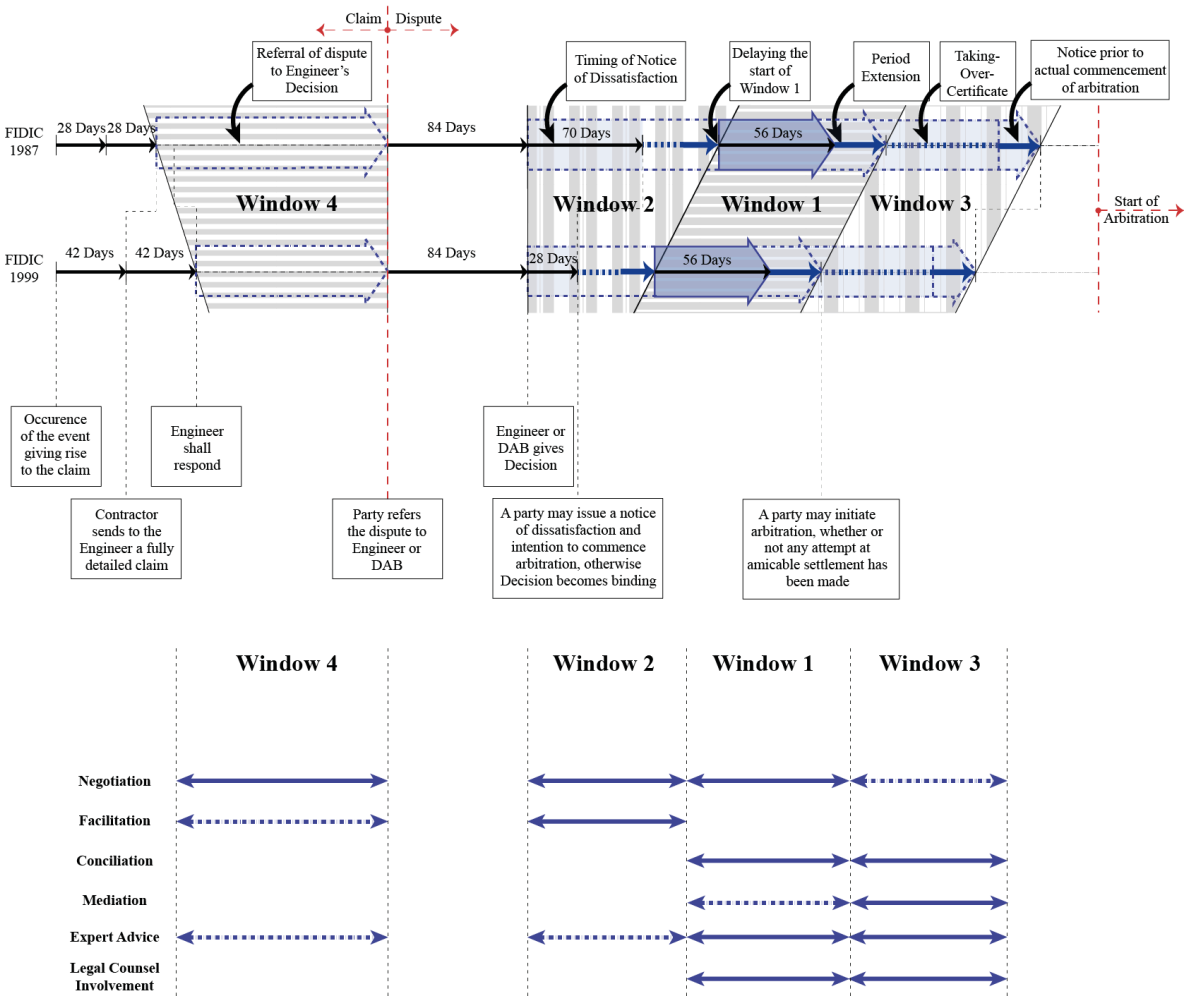

Figure 34: Organization of ADR Methods along Timeline Windows

5.3. Mechanism

In light of the proposed alignment between the various available ADR methods and the identified windows, and in addition to the detrimental and instrumental practices concluded from the case studies, the following set of guidelines and procedures corresponding to the amicable settlement period are formulated. This mechanism of conduct addresses the start, progression, and conclusion of the amicable settlement process.

Issues including which parties are engaged in and what parameters/variables are governing the efforts throughout this process are assessed and presented.

5.3.1. Drafting Amicable Settlement Clauses

The parties to a contract must devote adequate attention and meticulousness when drafting dispute resolution and amicable settlement clauses. In addition to aiding parties to plan and prepare for potential disputes, ADR methods also give the parties the flexibility to customize the most time-and-cost effective resolution process for their case. Parties who wish to maintain some degree of control over the management of any dispute that might arise can ensure this by including an alternative dispute resolution clause in their contract. By inserting an ADR clause in the dispute resolution section of the construction contract, the parties are specifying and agreeing to the terms of the resolution process to be followed. If and when any ADR methods are stipulated in these clauses, details as to their procedures and the body to administer such methods should be agreed on and clarified. The administrative procedure for selecting a party to resolve the dispute should be clearly spelled out, and the process to be followed should be defined.

5.3.2. Initiating Amicable Settlement

During the 56-day period typically allowed for amicable settlement, no party can force the other party into communicating, negotiating, or attempting amicable settlement. No guidelines or requirements specify which party is to initiate or pursue settlement attempts. While some may consider the party to initiate dialogue and communication during this period to have the weaker standpoint, this is a misconception. Settlement

depends primarily on the attitudes of the parties themselves; however, there are various techniques a party can use to put a settlement on the agenda. Several factors influence how effective and enforceable amicable settlement as a condition precedent to the commencement of arbitration is, including those proposed below.

5.3.2.1. Degree of Commitment

The degree of certainty and commitment to the initiation of this process that is shown by the parties plays an important role in determining whether or not amicable settlement shall actually be attempted. Early on, and before the matter reaches Window 1, after a claim has been presented, the Engineer is often required to consult with both parties in order to try and reach an agreement before having to finalize a determination. Negotiations may actually start at this point along the timeline, and the attitudes of the parties towards the matter can be sensed from the beginning.

As it was observed on most of the cases, negotiations by means of meetings and phone conversations are the first steps the parties resort to when dealing with a claim. Often times, it is the party who filed for the claim that initiates such communication. This is not to be viewed as a weakness on behalf of that party, but rather as a reflection of intention to find a solution as soon as practicably possible. The degree of commitment becomes clearer once communication starts. The level of seriousness with which a party is regarding the matter at hand is often suggested in letters, emails, and conversations. If one party attempts to reach out to the other party, but receives no response or receives an irrelevant/incomplete response, this could be an indication of the responding party's dismissal of such a matter.

Most of the cases showed active involvement of the parties in negotiations throughout Window 4. Such efforts were observed to tone down during Window 2, but are then revived in Window 1. The degree of commitment of a party to resolving a dispute is often put to the test during Windows 1 and 3. If the contract conditions do not specify any procedure for the selection of a party to assist in the resolution process, and if one of the parties actually suggests the involvement of a neutral third-party (facilitator, conciliator, etc.), the reaction of the other party to such a suggestion could reflect their level of certainty and commitment. Involving a third-party should be mutually agreed on. As such, a party's rejection to another party's suggestion of involving outside assistance may be construed as being uncooperative and may indicate the uncertainty and lack of confidence of that party regarding their own position.

5.3.2.2. Role of the Parties

It is essential to determine the steps required of each of the parties that allow the process of amicable settlement to be put into place. Some argue that seeking to resolve a claim by friendly discussion is unenforceable and purely dependent on the attitudes of the parties involved in the dispute. The conditions stipulated in the contract could serve to clearly state the roles of the parties and define the administrative procedure to be followed. A preliminary meeting, held prior to the Engineer's determination, could be formalized as part of the conditions of contract. Such a meeting could occur at the operational level, involving people who are more aware of the specifics of the matter. Another meeting after the determination is given, and prior to the issuance of a rejection, could then be held, involving the same participants and allowing for the discussion of the given determination.

Such meetings, which could be instructed by the contract, may allow negotiations to start at an early stage. If the matter develops into a dispute, and after the Engineer's Decision is given, another meeting, one involving executive-level and operational-level personnel, could be held to discuss accepting or rejecting this Decision. The suggested meetings proposed above could act as platforms for the beginning and sustainment of negotiation efforts. The coming subsection will address in detail the procedure and management of more formal meetings that are held during the primary amicable settlement stage.

5.3.3. Progression of Proceedings

The case study analysis demonstrated that the parties often tend to explore several methods prior to arbitration. Negotiation among project executives and resorting to project neutrals are steps that were followed prior to more formal dispute resolution processes on several of the cases. If managed successfully, amicable settlement can significantly reduce the cost of resolving a dispute, thus allowing the parties to focus on productively managing their business rather than being occupied by arbitration or litigation procedures.

Once the parties have agreed on a dispute resolution procedure to follow, they must specify the quality and quantity of information to be documented and exchanged. There is no doubt that the stakeholders involved in a dispute have divergent interests, and each party would rather the matter be settled to its favor. However, for the amicable settlement process to be effective and successful, the commitment and participation of all the stakeholders is necessary. As such, it is crucial to the process of amicable settlement and its chances of success that these stakeholders keep the lines of communication open and strive to reach consensus on important process issues. The following is a list various

factors that the parties should consider when attempting negotiations and other forms of alternative dispute resolution:

1. Who does each entity's negotiating team involve? Who are the individuals participating in the various meetings/proceedings?
2. How can the engagement of operational-level staff, who are more informed about the claim/dispute, be of value to achieving progress?
3. How should the negotiating team approach the meeting/session? What role will each participant play? Who is to be nominated as the spokesperson?
4. How involved in the proceedings should business principals and upper management personnel be? And to what extent should they directly interface with each other prior to or during these proceedings?
5. How may including an outside expert aid one or both parties?
6. Are there any unique considerations given the nature of the project, the nature of the owner, or the nature of the general contractor?

These questions, if properly addressed by the parties, can aid in organizing the negotiations process, thus allowing the amicable settlement stage to proceed effectively. Such issues are also relevant and applicable during other methods of resolution such as facilitation, conciliation, and mediation. When planning for and holding a meeting or workshop, the parties should keep an open mind and maintain positivity in trying to reach an agreement. The individuals leading the discussion, be they outside neutral third parties or members of the owner or contractor's sides, should try to make the most of the

proceedings and maximize its effectiveness. The procedure set out for amicable settlement throughout Window 1 is influenced by the methods adopted during the phases that preceded it. How long Window 4 extended before an Engineer's Decision was requested, the level of interaction among the parties that took place prior to Window 1, and what ADR methods have been employed so far are all factors that affect the progression of proceedings throughout Window 1. Several variables and parameters govern the efforts during this period. These include: further exchange of correspondence, scheduling of meetings and workshops, involvement of the project participants themselves as well as neutral outside assistance, etc. Products of such procedures may include further analyses of the facts of the claim/dispute, reports produced by third-party experts, evaluations of the case's chances of winning in court, among others. These are measures that were endorsed throughout the proceedings of the cases, and thus inform the mechanism described above. Due to the variety of projects and their participants, construction disputes will evolve, proceed, and be resolved with regard to the situations within which they are faced. Even with a clearly stated mechanism and procedure for resolving such disputes, the effectiveness of the amicable settlement stage depends on the level of interaction that will have taken place prior to reaching Window 1.

5.3.4. Documentation of Proceedings

The issue of documentation of any attempt at resolving a given dispute is of importance, especially when taking into consideration that most of the Alternative Dispute Resolution methods are confidential processes. Often times, the parties choose to

impose limits on themselves as to how much (if any) information discussed during the negotiations, meetings, and workshops that are held may be documented and/or disclosed outside such proceedings. The issue of not being able to document any progress by means of minutes of meeting was faced on all the cases that were considered. During negotiations, the parties may attempt to compromise and express their positions regarding a deal. However, in the case where negotiations fail to result in an agreement, being exposed to have at some point agreed to such a condition might not serve the party. In the case where attempts at settlement and ADR methods fail, and if the matter is taken to arbitration, parties fear being held accountable to any position they might have communicated or any opinion they might have expressed at a previous stage, when negotiations were under way. This is the main reason behind imposing limits on what can and cannot be noted and communicated. As such, and in most cases, the parties specify and agree to what kind of information may be documented and exchanged, and this is done to serve the interests of both parties. The disadvantage of such a state is the difficulty in supporting any progress that is achieved during meetings/negotiations. The binding ability of progress made at any level or advanced point in time may be affected by the documentation of the proceedings.

5.3.5. Role of Legal Counsel

In most claim cases, a lot of developments will take place between the time the parties first seek an expert or legal opinion on their standing and the time settlement is reached. It is a legal expert's responsibility to be objective and accurate when asked for an opinion. When providing legal advice, it is the expert's duty to keep the client updated regarding any developments that might influence the prospects of success or failure of their

case. Reliable and honest evaluation of the parties' respective positions may at some point persuade one of the parties to propose or accept settlement (Panov and Petit 2015), as was observed in Case 8. Even if arbitral proceedings have already commenced, and regardless of how far they along they have reached, the counsel should always allow for the opportunity to settle.

In his article under the title of "Lawyerization of the Engineering and Construction Industry", Roger Owers describes the role played by legal professionals in the construction industry. The ability to arbitrate/litigate is not the only tool a Contractor or Owner needs from its construction lawyer. A construction lawyer must first fulfill the role of a 'legal counselor' in regard to dispute avoidance. The relationship between the various parties involved in a construction project (Owner and Designer, Owner and Contractor, Contractor and their various Subcontractors) is defined by a contract. Lawyers play a pivotal role in the development, drafting, explanation, and litigation of these contracts. They help draft and negotiate contract terms, as well as any subsequent additions or changes to such agreements, and are usually called upon for advice when disputes arise (Owers 2007).

5.3.6. Recording Achieved Settlement

Once the parties reach a consensus among themselves regarding their dispute, the settlement agreement is to be documented. Such a settlement agreement serves to recognize the attained amicable settlement, and is thus considered to be a contractual document. A successful process will normally result in the parties executing an agreement that specifies the following:

- net amount due, if any, to the Contractor/Employer
- conditions to be met prior to payment being released
- discharge of liability towards one another/third-party, and
- withdrawal of filed mediation/arbitration

The parties may include as part of such a settlement agreement any terms they require for settlement purposes, and they may also subject this agreement to a confidentiality obligation. In the case where a settlement is reached while arbitration proceedings are still ongoing, any such proceedings that are in progress may be discontinued and terminated upon the parties' request without having to inform the arbitrators or any third parties about the terms of their settlement (Panov and Petit 2015). A second way to document an amicable settlement agreement is by means of a consent award on the agreed terms. Although many arbitrators might prefer to review the agreement terms before issuing a consent award, most arbitral institutions allow for awards on agreed terms to be granted. A consent award, as with any other final award, should be enforceable internationally. The owner and contractor to the dispute in Case 5 commenced arbitration almost ten years after the contractor had filed his claim. In this case, amicable settlements failed, and the arbitration procedure was concluded with a sole-arbitrator's verdict. This verdict was then taken and its conditions were applied and enforced by the parties themselves. This example serves to show how different cases will, without doubt, involve different situations and methods of settling a dispute.

CHAPTER 6

SUMMARY AND CONCLUSION

6.1 Summary

Many studies in the literature discuss how disputes on construction projects may be resolved. Various methods including negotiation, facilitation, mediation, and arbitration are used in attempting to resolve such disputes. Contracts often incorporate dispute resolution clauses that help guide the parties through this process. Amicable settlement is a dispute resolution strategy that is mentioned in several standard conditions of contract. However, information regarding the procedures and practices corresponding to this period is limited.

The findings and inferences of the literature review and case studies undergone throughout this thesis will be summarized in the following section. This conclusion will offer a list of best practices for the project participants to consider and follow when attempting amicable settlement. The outcomes and recommendations deduced from this thesis will be presented, and may serve as guidelines for drafting effective amicable settlement clauses to be incorporated as particular conditions of future contracts. In addition, the limitations of this study will be described, and guidelines for future work will be proposed.

This thesis focused on examining what the period of amicable settlement entails. This was achieved through a careful reading of the FIDIC conditions of contract in parallel with case study research. The following questions were addressed:

1. How is communication triggered and how may the disputing parties establish dialogue during the amicable settlement period?
2. Who is pursuing actions to attempt amicable settlement and who facilitates this process?
3. What detrimental practices should be avoided when drafting contract conditions and throughout the resolution process?

The first question was addressed by examining the various methods of communication and alternative dispute resolution available to the parties. Furthermore, time windows along the claim-dispute timeline where resolution can be attempted were identified. Factors related to the nature of the dispute and the priorities of the parties that affect the choice of Alternative Dispute Resolution method were assessed, and, as such, an assignment of the various methods to each stage along the timeline was proposed. The second question was tackled through studying the roles played by the parties to the dispute and their legal counsel in attempting amicable settlement and facilitating this process. The authority, power, and attitudes of the various participants involved in this process affect the course of the settlement period. The third question was related to the practices derived from the various case studies. In addition to the reading of both general and particular contract conditions of the projects taken into consideration, an analysis of the dispute resolution strategies followed throughout the progress of these projects allowed the formulation of a list of recommended best practices to be followed and detrimental practices to be avoided.

6.2 Conclusion

The literature review offered an outlook on conflicts, claims and disputes, as well as a better understanding of the existing methods for resolving disputes. This fed into the case study analysis that followed. The following points were concluded:

- Conflicts, claims and disputes may be considered an inevitable consequence of the construction process, and should be effectively addressed and managed.
- Better administration of claims/disputes can allow for a better chance at resolving them more successfully.
- The FIDIC Conditions of Contract contain requirements for the submission, consideration, and resolution of claims and disputes.
- Arbitration and Litigation are costly and time-consuming dispute resolution processes.
- Alternative Dispute Resolution (ADR) methods are techniques used in an attempt to reach a negotiated resolution of a dispute. These include negotiation, facilitation, conciliation, mediation, med-arb, early neutral evaluation, etc.
- Disputes can be resolved through amicable settlement agreements before they are presented to a judge or arbitrator.
- FIDIC clauses mandate the passage of a 56-day period allowing for amicable settlement as a condition precedent to commencing arbitration.

The claim-dispute timelines of both 1987 and 1999 FIDIC conditions of contract were illustrated, and an analysis of the amicable settlement period was presented. A reading

of the clauses associated with amicable settlement found that the effective length of this period could actually be extended beyond the 56 days. This extension is dependent on various factors:

Allowing the period of time given to issue a notice of dissatisfaction following an Engineer or DAB's decision to be exhausted, the mutual agreement of both parties to the dispute to the extension of the 56-day period, tying the start/trigger of the amicable settlement period to an event other than the issuance of a notice of dissatisfaction, tying the start of arbitration to the issuance of a notice, etc. Four time windows where amicable settlement may be sought were highlighted, and ADR methods most suitable to the primary time window (the actual 56-day period), in addition to earlier and later time windows were recommended.

6.3 Limitations

The research undergone as part of this thesis was subject to certain limitations:

1. The case studies considered are based on the 1987 FIDIC conditions of contract or other Employer/Contractor and Contractor/Subcontractor templates. Although a comprehensive reading of the 1999 FIDIC Claim/Dispute timeline and a clear illustration of its corresponding amicable settlement stage, in addition to the analysis of the role played by the DAB were presented, none of the cases were based on the 1999 FIDIC conditions of contract, which can be considered as a limitation of the findings.

2. The nine cases that were available for study and were thus taken into consideration were all located within the MENA region. Relying on a broader and more diverse sample of cases, of different contract forms could have better validated the results.
3. The Amicable Settlement clauses, on which the analysis and findings were based, directly pertained to the presented cases, and were extracted from the FIDIC conditions of contract. Further analysis of amicable settlement and dispute resolution clauses as included in other standard forms of contract (AIA, EJCDC, etc.), in addition to cases based on such forms of contract could benefit in the verifications and conclusions.
4. The cases were presented in the form of describing the causes of claims/disputes on each project, and the steps followed by the participants in attempting to resolve these issues. These claims/disputes were not classified based on type/cause, and no correlation between the process and result of amicable settlement and such claims was made. This was mainly due to the number of available sample of cases.

6.4 Recommendations

The reading and analysis of the FIDIC claim/dispute timelines that was presented, in addition to the findings of this research, have allowed the formulation of a list of recommendations. These outcomes and recommendations summarize the best practices deduced and the proposed guidelines for the effective management of the amicable settlement stage. Such findings and guidelines may aid construction industry professionals in drafting effective amicable settlement clauses that may be incorporated as particular conditions of future contracts. These recommendations include:

1. The parties should, while drafting the contract agreement, specify the method and procedure by which their disputes are to be resolved.
2. The parties are encouraged to actively engage in negotiations and attempts at resolving the matter early on, prior to requesting an Engineer's Decision and while the issue is still considered a claim.
3. The effective management of the amicable settlement stage depends on the attitudes of the parties towards resolving their differences, as well as the Alternative Dispute Resolution techniques they choose to employ.
4. The chances and time for attempting amicable settlement are not confined to the 56-day period, and as such the parties should try to engage these windows of opportunity that precede arbitration.
5. The parties should involve outside experts (technical/legal/specialty) in order to provide them with a better-informed and fair analysis of the situation and what can be done regarding the matter in dispute.
6. The parties should understand that the amicable settlement period was mandated prior to arbitration to allow them a final chance at resolving their dispute, and as such this period is not to be taken for granted or wasted.

6.5 Future Work

Future work may incorporate the following steps, if and where possible:

1. Further validation in the form of case studies and analysis of claims and disputes and their method of resolution on construction projects based on various forms of contract and their editions (FIDIC, EJCDC, AIA, etc.). The study of a broader

sample of such cases could draw data and findings that are effective in better managing the amicable settlement stage.

2. The incorporation of a larger sample of more diverse projects of various type, scope, contract forms, and from different countries in the study of claims/disputes and the various methods of their resolution.
3. A broader study, including more cases, could allow a further classification of the types/causes of claims, and thus test a possible correlation between the rate of success of amicable settlement and the types/causes of the claims in question. Perhaps some types/causes of claims have a better chance of being resolved amicably than others.
4. Workshops including legal advisers, facilitators, conciliators, and mediators who have been involved in assisting parties to resolve their differences could afford a better understanding of what factors affect the success of amicable settlement of claims/disputes on construction projects.

CHAPTER 7

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