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EXPERTS IN CONSTRUCTION CLAIM AND DISPUTE RESOLUTION: ROLES AND LIABILITIES

by
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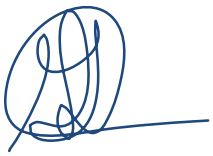

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ABSTRACT
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As the threats of claims and disputes continue to affect construction projects, it is becoming increasingly important for parties to incorporate multi-step approaches for claim and dispute resolution in the conditions of the contract. Such multi-step approaches typically engage many participants during their phases, including various types of experts. While the literature thoroughly addresses some of the expert roles in the claim and dispute resolution process, it underemphasizes other roles. The main objective of this research is to develop the full spectrum of expert roles involved in the claim and dispute resolution process and determine their role requirements and involvement scenarios along the course of the process. The research also aims to study the experts' exposure to liability (in case of negligence). In other words, the research intends to study the boundary of expert immunity from negligence liability.

The research methodology includes (1) defining the expert roles (or types of additional expertise) typically involved in the construction claim and dispute resolution process, (2) examining the scenarios of experts' involvement, (3) mapping the expert roles along a standard timeline for construction claim and dispute resolution, and (4) determining the status of immunity of the different experts that are involved. The findings of the research reveal the main categories of experts that are entitled to immunity from negligence liability. By that, the research removed ambiguities related to the experts involved in the construction claim and dispute resolution process, specifically in regards to their types, the scope and nature of their involvement, and the status of their immunity against negligence liability.

CONTENTS

ILLUSTRATIONS

TABLES

CHAPTER 1

INTRODUCTION

1.1 Background

With the increase in the volume of construction claims in the recent years, construction conflicts can no longer be avoided. However, such conflicts, if not properly managed, can easily result in disputes, thus threatening the successful completion of construction projects (Khekale and Futane 2015).Therefore, it is important for contract conditions to incorporate multi-step approaches for conflict resolution.

Standard conditions by AIA, ConsensusDocs, EJCDC, FIDIC, JCT, and NEC suggest a variety of multi-step approaches for claim and dispute resolution that start with the disclosure of the claim and end with arbitration. These approaches differ in their phases (as to the function and sequence). However, generally, the phases of any multi-step approach can be classified into four groups: initial judgment, discussions, Alternative Dispute Resolution (ADR), and amicable settlement (Barakat et al. 2019).

Nevertheless, for the construction claim and dispute resolution approach to come off, several participants, other than the parties in conflict, need to be involved, including: the entity rendering the initial judgment on the claim and the ADR third party (if any), in addition to any expert retained during the process.

Experts play major roles throughout the construction claim and dispute resolution process. Through the roles they play, experts become part of the contractor, the owner, or the third party's team during the construction claim and dispute resolution

process. It is significant to mention here that the particulars and nature of each expert role is reliant on the type of the expert involved.

1.2 Problem Statement

While the literature focuses on certain types of expert roles, it ignores several others, especially the backstage or confidential roles played by experts. Hence, the complete spectrum of roles that may be played by experts during the construction claim and dispute resolution process is yet to be determined. Also, the complete mapping of expert roles onto the claim and dispute timeline needs to be developed. Such a mapping marks all possible stations for experts' intervention along the timeline. This mapping, once established, assists in indicating when and according to what timeframes is each expert role played.

Furthermore, the experts involved during the conflict or dispute resolution process might be exposed to the risk of liability in case of negligence. While many experts are not certain about their liability in case of negligence, other experts claim they are protected from negligence liability by immunity (especially expert witnesses). In reality, the trend is generally going towards less immunity. Having said that, a clear gap exists in the literature, leaving many experts in confusion about their potential liability in negligence, their status of immunity, and the extent of their immunity (if present).

1.3 Research Objective

The purpose of this research is to identify all possible scenarios for experts' intervention during the process of construction claim and dispute resolution. The

research also aims to highlight the stations along the claim and dispute timeline where experts can be engaged. This helps frame the various expert roles involved along the timeline. On the other hand, the research intends to study the boundary of immunity (against negligence liability) for expert roles and investigate the potential for liability for each expert. Additionally, the research aims to clarify the meaning of negligence, in such a way to guide experts away from liability.

1.4 Methodology

The methodology adopted in this research is as follows:

1. Reviewing the literature and the standard forms of contract conditions.
2. Examining the various construction claim and dispute timelines developed using the different standard forms of contract conditions.
3. Identifying the different expert roles involved in the construction claim and dispute resolution process, along with the scope of roles.
4. Determining the possible scenarios and characteristics for the involvement of experts during each phase on the claim and dispute timeline.
5. Mapping the expert roles along the construction claim and dispute timeline to highlight the stations of experts' interventions along the claim and dispute timeline.
6. Reviewing case law involving negligence of experts.
7. Identifying the status of immunity (or the potential for liability) of the different expert roles, in case of negligence.
8. Giving recommendations to experts.

CHAPTER 2

LITERATURE REVIEW

2.1 Preamble

The purpose of this chapter is to provide the foundation of knowledge necessary for this research. This chapter offers a brief overview on construction projects, contracts, claims, and disputes. Then it explores the multi-step approaches suggested by the different standard conditions (FIDIC, AIA, ConsensusDocs, EJCDC, JCT, and NEC) for conflict resolution. In addition, this chapter introduces the major participants of the construction claim and dispute resolution process, then further expands on the types of additional expertise that could be engaged in the process.

2.2 Construction Projects

While there are numerous definitions for a construction project, a comprehensive definition for a project is that it is: "A unique process, consisting of a set of co-ordinated and controlled activities with start and finish dates, undertaken to achieve an objectives conforming to specific requirements, including constraints of time, cost and resources" (Lester 2013). As the definition suggests, a construction project has its starting and finishing points defined and its objectives specified.

Generally, the project's objectives are governed by the following criteria: time, budgeted cost, quality or performance requirements, and, in certain industries like airlines, mining, etc., safety. The priority given in the project to each one of these criteria is contingent on the industry and the construction project itself. For example, a

project is probably a safety-bound project (a project giving safety a top priority, while possibly compromising other criteria) if it involves constructing railways (yet, arguably, all projects must be safety-bound projects). Other projects can be time-bound projects (where cost and/or performance might be sacrificed for the sake of finishing on time), cost-bound projects (where the project cost cannot be exceeded; if for example the project is funded by the central government), or performance-bound projects (where time and the cost might be compromised for the sake of meeting the specification).

Irrespective of the project's priorities, the construction project will require several inputs. These inputs can be classified into permanent or applied resources. Permanent resources (like materials and systems) are the resources that need to be procured, delivered to site, handled on site, to be eventually installed on site. Such installation will be done with the help of the applied resources, including the laborers, equipment, energy, tools, etc. The application of these applied and permanent inputs, along with the proper management of construction constraints (environmental, technical, social, etc.), will result in the successful completion of the construction project (completing the project on time, within budget, and according to the required standards).

2.3 Construction Contracts

The construction contract is the legal document acting as a manual for good project management procedures (Totterdill 2006). Put differently, the setting out of the contract document contributes to efficient project management.

Construction contracts include general and particular conditions that describe the rights, duties, liabilities, obligations, and responsibilities of the parties to the

agreement. Standard forms of such contracts can be adopted, especially that industry practitioners feel comfortable to use familiar forms of contracts which are drafted and agreed on by recognized bodies and are "capable of interpretation by reference to readily available text books and case law" (Thomas 2006). Standard forms of contracts are generally customized to suit projects of different sizes, complexities, and methods of contracting.

2.4 Construction Claims and Disputes

Construction claims generally arise between the parties to the contract over cost, time, quality, or safety. When looking for the roots of construction claims, contract related issues surface. In a recent study presented in the Second World Conference on Business, Economics, and Management (WCBEM 2013), it was identified that "contractual problems" are the top most common causes of claims (Cakmak & Cakmak 2014). Moreover, as studies suggest, such claims became inevitable (Barakat et al. 2019).

As the volume of construction claims and conflicts continues to increase (Khalife and American University of Beirut 2016), the necessity to manage conflicts also rises. Conflicts, if not properly managed, can rapidly escalate into construction disputes. Such disputes can be damaging in terms of time and cost (the direct costs (alone) associated with disputes can go up to 5% of the project's contract value), can disturb or destruct the parties' working relationships, and can affect the productivity and performance of a project (Aryal and Dahal 2018). Thus, construction conflicts and disputes have to be managed promptly and properly. For that purpose, several standard

forms of contract conditions, including FIDIC, AIA, ConsensusDocs, EJCDC, JCT, and NEC, propose mechanisms for claim and dispute resolution.

2.5 Multi-step Approaches of Different Standard Conditions

This section of the chapter reviews the approaches to construction claim and dispute resolution proposed by the different standard contract conditions.

2.5.1 FIDIC's Approach for Construction Claim and Dispute Resolution

The FIDIC standard conditions (2017) include the following claim and dispute resolution mechanism: the claim shall first be initiated by submitting a notice of claim within 28 days from the date on which the claimant became or should have become aware of the event giving rise to the claim. An initial response by the Engineer shall then be issued specifying if the notice of claim was submitted within the relevant time bar. If such response is not issued within 14 days, the notice of claim shall be deemed to be valid. After the claimant submits a fully detailed claim, with all its supporting particulars, the Engineer shall, within 42 days, consult both contract parties, either jointly or separately, in an attempt to reach agreement. If no agreement is reached, the Engineer shall give his **determination** within the next 42 days. The determination of the Engineer shall become final and binding on the contract parties if no party objects to it. However, if a party objects, issues a notice of dissatisfaction, and refers the matter to adjudication within 42 days from the date of issuance of this notice, adjudication will be initiated. In that case, the dispute adjudication board (DAB) will have 84 days to render a decision. The dispute adjudication board's decision will become binding and final if no notice of dissatisfaction is issued within 28 days from the date on which the decision

was given. Yet, in case a notice of dissatisfaction is issued, amicable settlement will be triggered and an alternative dispute resolution (ADR) process (like expert determination, mediation, etc.) can take place. As a last resort, either party can commence arbitration on or after the 28th day of this amicable settlement period. Such a step is commonly used as the last resort, instead of litigation, in national courts due to its "numerous advantages" which make it more acceptable to the Parties in international contracts (FIDIC 1999).

2.5.2 AIA's Approach for Construction Claim and Dispute Resolution

According to AIA standard conditions (AIA 2007), when the event giving rise to the claim occurs, a notice of claim shall be issued to the other party and to the initial decision maker (IDM) within 21 days from the day of occurrence of the event. The IDM will then have 10 days to take action. Also, the IDM may request either party to submit supporting data. If so, the party shall, within 10 days, do one of the following: provide supporting data, advise the IDM that it won't furnish supporting data, or advise the Engineer that it needs more time to provide the supporting data. Next, an **initial decision** by IDM shall be rendered within 30 days from the date of issuance of the notice of claim. This decision shall contain an approval of the claim in whole, a rejection of the claim (either in whole or partially), or a declaration that the IDM is unable to resolve the claim. Upon the rendering of the initial decision by the IDM (or upon the expiry of the stipulated period), any party can file for mediation, unilaterally and at any time. A party can even, within a period of 30 days after the date of rendering of the initial decision, demand the other party to file for mediation within 30 days. The minimum period for mediation, once initiated, is 60 days (unless mediation ended

through an agreement or concluded by the mediator). Upon the expiry of this 60-day mediation period or upon the end of mediation, either party can, within a 30-day period from the date of conclusion of mediation, demand the other party to file for binding dispute resolution. Failure to do so by the demanding party will trigger an unregulated period in which either party can file for binding dispute resolution at any time within the statute of limitations. On the other hand, failure to file for binding dispute resolution within 60 days will waive the right of both parties to pursue binding dispute resolution.

2.5.3 ConsensusDocs's Approach for Construction Claim and Dispute Resolution

As per the ConsensusDocs (2017) conditions, to initiate a claim, a notice of claim shall be issued within a period of 14 days from when the event occurred or from when the conditions giving rise to the claim were recognized. As for the supporting data, they shall be submitted by the contractor within 21 days from the issuance of the notice of claim. It is on the owner to issue his **response** within a period of 14 days. Subsequently, an unregulated period will be triggered, in which both parties mutually agree to initiate the direct discussions. Discussions (including those at the level of the parties' representatives and those at the level of the parties' senior executives) shall last for a total of 15 days from the recorded date of the first discussions. If no agreement is reached through the discussions, parties shall refer the disputed matter to mitigation or mediation. It is important to mention that the disputed matter can be submitted to mitigation at any time, which is not the case for mediation, as mediation shall be convened within 30 days from the date of the first discussions. Moreover, mitigation shall end within a maximum period of 5 days (during which the neutral or dispute review board should issue its finding), while mediation shall end within 45 days from

the date of the first discussions. If the disputed matter is not resolved through mitigation or mediation, either party shall file for binding dispute resolution within the statute of limitations.

2.5.4 EJCDC's Approach for Construction Claim and Dispute Resolution

The mechanism set forth for construction claim and dispute resolution in the EJCDC (2013) conditions is as follows: the claim, including its supporting data, must be submitted within 30 days from the occurrence of the event or from when the conditions giving rise to the claim were recognized. After that, the review and resolution stage will be triggered. The contracting parties shall, within 90 days, attempt to reach resolution through direct negotiation and exchange of information (discussions). During the review and resolution stage, the parties can mutually agree and initiate mediation. Moreover, at any time within this stage, the owner can render an **action** containing an approval or rejection of the claim (in whole or in part). The rendering of this action is a condition precedent to the final resolution of dispute, as the filing for the final resolution of dispute shall be made within a period of 30 days from the date of rendering the action by the owner. However, if the owner's action is not rendered within the stipulated period, any party can issue a denial-of-claim letter, deeming the claim as rejected and triggering the time bar for filing for the final resolution of the dispute.

2.5.5 JCT's Approach for Construction Claim and Dispute Resolution

Different mechanisms are incorporated under the JCT (2016) conditions for the two different types of claims: "claim for the adjustment of the completion date" and "loss and expense claim".

With respect to the adjustment of completion date claim, the notice of claim shall be issued when it "becomes reasonably apparent that the progress of the work is being or is likely to be delayed" (Barakat et al. 2019). The particulars shall be submitted either with the notice of claim or as soon as possible. Afterwards, the architect or contract administrator shall render **a decision** on the submitted claim within 12 weeks from the receipt of the particulars.

As for the loss and/or expense claim, the notice of claim shall be issued "as soon as the extent of any loss and/or expense becomes or should have become reasonably apparent to the claimant" (Barakat et al. 2019). The initial assessment of the incurred loss and/or expense shall be submitted either with the notice of claim or as soon as possible. Then, the architect, contract administrator, or the quantity surveyor shall render **an ascertained assessment** within 28 days from the date of receipt of the initial assessment.

If parties were not satisfied with the **decision (on the claim for the adjustment of the completion date) or the ascertained amount (for the loss and/or expense claim)**, they can mutually agree to initiate mediation. Mediation is not a condition precedent for adjudication, so either party can refer the matter to adjudication at any time. After the referring party issues a referral notice, the adjudicator shall render a decision within 28 days. However, at any time, either party dissatisfied with the decision can issue a notice of arbitration to initiate arbitration.

2.5.6 NEC's Approach for Construction Claim and Dispute Resolution

Under the NEC (2013) standard conditions, a notification of compensation event must be issued within 8 weeks from becoming aware of the event. Afterward, **the project manager** shall decide, within a week, if there would be a change in the price,

completion date, and/or key dates as a result of the event. If the project manager decides that there would be a change, the claimant shall submit a quotation within 3 weeks to be replied on by the project manager within 2 weeks. The project manager's reply shall indicate whether the quotation is approved in whole or rejected, in whole or in part. If the claimant is dissatisfied with the project manager's reply, one of two mechanisms shall be adopted.

The default mechanism dictates that the dissatisfied party issues a notification of dispute within 4 weeks from the project manager's reply. Then, that party shall, within 2-4 weeks from issuing the notification of dispute, refer the dispute to adjudication and submit the supporting documents. Further particulars can be submitted within 4 weeks from the referral of the dispute to adjudication. After this period expires, the adjudicator will have a period of 4 weeks to issue a decision. If either party is dissatisfied with the decision of the adjudicator, a notice of dissatisfaction shall be filed within 4 weeks from the issuance of the decision, in order to initiate arbitration.

On the other hand, in the other option/mechanism, the dissatisfied party can issue a notification of adjudication at any time. Within 3 days from the receipt of the notice of adjudication, the adjudicator (named in the contract) shall declare whether he is willing to act. Within 7 days from issuing the notification of dispute, the referring party shall refer the dispute to adjudication. Further particulars can be submitted within 2 weeks. Finally, within 28 days from the date of referral of the dispute to adjudication, the adjudicator shall render a decision. Again, if either party is dissatisfied with the adjudicator's decision, a notice of dispute shall be issued by that party within 4 weeks from the issuance of the decision, in order to initiate arbitration.

2.6 Major Participants Involved in the Construction Claim and Dispute Resolution Process

After examining the standard approaches for claim and dispute resolution, the participants involved in the construction claim and dispute resolution process now need to be introduced. The major participants include: the claimant, the respondent, and the entity rendering the initial judgment on the claim.

2.6.1 The Claimant

The claimant is considered to be the party triggering the claim and dispute timeline (because it is the one submitting the claim). The claimant can be either the employer or the contractor, for "contract conditions typically stipulate that either the owner or the contractor may submit a claim with respect to an arisen conflict" (Barakat et al. 2019).

The FIDIC includes likely scenarios in which the contractor becomes the claimant, like the scenarios of: late access or possession of site, adverse unforeseeable physical conditions, extensions of time for completion, variations to the contractor's scope of work, and contractor's entitlement to suspend work. Likewise, the FIDIC also designates some scenarios in which the employer is likely to become the claimant. According to FIDIC, the employer is likely to submit a claim for rejection and retesting of works, delay or liquidated damages, or the contractor's failure to remedy work within a reasonable additional time (Norman and Merwe 2019).

2.6.2 The Respondent

The “respondent” term refers to the party against whom the claim is made. Barakat, in his paper, referred to the party whom the claim is against simply as “the other party”. The term used by Barakat might be more appropriate than the “respondent” term because the latter term is usually used in the context of proceedings only.

2.6.3 The Entity Rendering the Initial Judgment

When it comes to the initial judgment given on the claim, the standard forms of contract conditions do not agree on a single entity to be the entity rendering such a judgment. Each standard form suggests a unique entity.

2.6.3.1 The Engineer in FIDIC

According to FIDIC (2017), the Engineer is the first to give a judgment regarding the alleged claim. His judgment would be in the form of a ‘Determination’, which is born binding (upon both parties) and has the possibility of becoming final if no notice of dissatisfaction is issued within a period of 28 days from the rendering of the determination.

2.6.3.2 The Initial Decision Maker in AIA

On the other hand, under AIA (2017), the initial decision maker (IDM) is the entity responsible to look into the notice of claim and its supporting documents and/or data in order to take an initial decision. That decision is “born as binding and final with

the possibility of the final attribute to be revoked through mediation" (Barakat et al. 2018).

2.6.3.3 The Owner in ConsensusDocs

Conversely, according to ConsensusDocs (2017), the owner who directly receives the notice of claim from the contractor, followed by the supporting documentation, is the one to render the response on the claim. However, the property of this response (whether it's binding, final, or both binding and final) is not stipulated under ConsensusDocs.

2.6.3.4 The Owner's Own Personnel in EJCDC

Under EJCDC (2013), those who issue an action regarding the claim are the owner's own personnel. Their action is born binding and final. However, the 'final' property of this action has the possibility of being revoked (in case the contractor invokes the final resolution of dispute stage).

2.6.3.5 The Architect/Contract Administrator in JCT

According to the JCT (2016) conditions, the third party (the architect or contract administrator) named in the contract is the one to render a decision on the submitted claim. Yet, the property of this decision is not specified.

2.6.3.6 The Project Manager in NEC

To end, under NEC (2013), the project manager or supervisor is the one responsible for issuing the decision on the claimed matter. Like in ConsensusDocs and JCT, the property of the judgment is not specified.

2.7 Alternate Means for Dispute Resolution

In addition to the previously mentioned participants, another participant of the construction claim and dispute resolution process is the ADR third party. The ADR third party is the entity to whom the dispute is referred during the Alternative Dispute Resolution (ADR) phase. Below are the common Alternative Dispute Resolution techniques that involve an intervention from a third party:

2.7.1 Facilitation

Facilitation is an ADR technique that helps the parties have constructive dialogue and communication with the aid of a facilitator (a neutral third party). The facilitator aids in managing discussions and promoting understanding between the parties. His focus is not on decision-making, but on "enhancing the mutual understanding of perceptions, interests and needs or preparing for joint action" (Mason 2007).

2.7.2 Conciliation

Conciliation is an alternative dispute resolution instrument. The conciliator, acting as the neutral third party, assists the parties to reach an amicable dispute settlement or agreement. If such an agreement is not reached, the conciliator may be

even required at some point to provide a non-binding recommendation or proposal for settlement.

2.7.3 Mediation

Mediation is a non-adjudicatory method entailing the involvement of an independent neutral third party, known as the mediator. The mediator applies effort to help the disputants figure out a solution to the dispute. With proper personal skills and additional training, an expert with experience in the field of dispute would be an ideal mediator. The latter's appointment could be jointly by the parties, by another third party at the request of at least one party, or by the court. The choice of the appointment method depends on the parties themselves, the nature of the dispute, and the contract (Tembo et al. 2010). In complex circumstances, two mediators (co-mediation) may be needed.

The most common classification of mediation is: facilitative versus evaluative mediation. In facilitative mediation, a mediator encourages negotiation between the disputants to help them share their interests and voluntarily reach a solution. The mediator does not make a recommendation or render a decision. This type of mediation is similar to facilitation. On the other hand, in evaluative mediation, which is often court-mandated, a mediator is more likely to share recommendations, suggestions, and/or opinions.

2.7.4 Expert Determination

Expert determination is a form of Alternative Dispute Resolution (ADR) whereby the parties to a dispute instruct an independent third party, who is an expert, to decide a particular issue.

Expert determination is mainly a creature of contract (Gould 2017). The process of expert determination is only governed by what was agreed on in the contract. "Unlike arbitration, or indeed statutory adjudication, there are no statutory 'backup' rules for expert determination" (King 2018).

2.7.5 Adjudication

Adjudication involves the introduction of an adjudication board, or a single adjudicator in the case of smaller contracts, in order to resolve disputes before reaching arbitration. Such board member, or single adjudicator, should be wholly independent of the parties, must have no interest in either of the parties (financial or otherwise), and should act impartially (Seppala 1997). Generally, the adjudicator should have experience in technical works and contract interpretation; hence he could be an engineer or another construction professional, or exceptionally a lawyer. According to the FIDIC, the board members could either be named in the contract or selected later by the parties. As for the number of board members, it could be either one (chosen by mutual agreement) or three according to FIDIC. To guarantee that the whole board has the confidence of the parties, if there are to be three board members, then each party should nominate one to be approved by the other party. After consulting with the two previously nominated members, both parties should mutually agree on the third

member. However, each party-appointed member is not to be considered a representative of the party nominating him.

2.7.6 Arbitration

Arbitration is also considered an ADR technique, as it is an alternative to traditional litigation (National Paralegal College). Arbitration could take place if the attempt at amicable settlement fails. Unlike in litigation, where there is limited opportunity for judges to be chosen, there is a chance in arbitration for the make-up of the tribunal to be agreed on. As per the FIDIC, the arbitration tribunal could have as low as one arbitrator or as high as three. In construction disputes, it is important for the arbitrator/tribunal to have a general knowledge of arbitration and familiarity with construction contracts, disputes, and their resolution. In addition, because technical matters need to be properly understood to be decided on, the arbitrator/tribunal must have the ability to interpret technical issues (if a lawyer) and legal issues (if an engineer).

2.8 Additional Expertise in the Construction Claim and Dispute Resolution Process

Additional professional expertise may be required for the purpose of supporting, assisting, guiding, and/or advising the major participants of the construction claim and dispute resolution process (that were mentioned in sections 2.6 and 2.7). This chapter focuses on introducing the different expert roles (or types of additional expertise) that can be involved during the construction claim and dispute resolution process, along with the scope of each role.

2.8.1 Types of Additional Expertise

The types of experts that can be engaged during the construction claim and dispute resolution process include: the expert adviser/consultant, the appraiser, the expert witness, and the assessor.

2.8.1.1 Expert Adviser/Consultant

The expert adviser/consultant, sometimes referred to as an "independent expert" (Buckley 2016) or a shadow expert (according to The Academy of Experts), is an expert appointed at any phase of the problem, claim, or dispute to provide advice on a technical or specialist matter (not to provide evidence to the court/tribunal). When a party privately retains such an expert, it does so at its own expense. In that case, the expert's advice, whether given before or after the commencement of the proceedings, is likely to stay confidential (CJC 2014).

2.8.1.2 Appraiser

The expert appraiser or valuer is an individual appointed by the court/tribunal due to his special knowledge, technical skill, and/or expertise. "The appraiser is expected to perform a discrete function involving only the ascertainment of particular facts. This function, which entails neither a hearing nor the exercise of judicial discretion, is not to be confused with the duty of the arbitrator" (Levine v. Wiss & Co. 1984). The appraiser merely renders the "finding of fact", he does not act quasi-judicially. His role is to value goods or properties, or assess damages (Bouvier 1856).

When it comes to the appraiser's appointment, an appraiser can be "selected or appointed by a competent authority or an interested party to evaluate the financial worth

of property" (Lehman and Ph 2008). Nevertheless, if the appraiser is appointed by a party, his role would probably be similar to that of an expert adviser (if he provides no evidence to the court/tribunal) or a party-appointed expert witness[1]. This is why the "appraiser" term is only used in this thesis in reference to the expert appointed by the court/tribunal to ascertain facts.

2.8.1.3 Expert Witness

The expert witness is appointed to provide opinion. He voluntarily agrees to perform his services, while utilizing his knowledge, skill, experience, training, and/or education, in return for a compensation (De Fabrique 2011) or "reward under contract" (Jones v Kaney 2011).

The expert witness can be either involved in adjudication or arbitration. In adjudication, the expert witness could be retained by the DAB or the parties for support. Similarly in arbitration, the expert witness can be appointed by the tribunal or by the parties in dispute. Yet, unlike in adjudication, the expert witness in arbitration could also be appointed jointly by the parties (rather than separately by each party).

2.8.1.3.1 Expert Witness in Adjudication

The expert witness in adjudication could be one of the following:

a) DAB-appointed Expert Witness:

The expert witness appointed by the dispute board is generally retained to assist on matters outside the expertise of board members. This witness only provides the Dispute Adjudication Board (DAB) with expert opinion, and does not join the DAB in

[1] Detailed in section 2.8.1.3

making its decision. According to FIDIC, the terms of the remuneration of this expert (whom the DAB consults) shall be "mutually agreed upon by the Parties when agreeing the terms of appointment" (FIDIC 2000).

b) Party-appointed Expert Witness:

On the other hand, expert witnesses are commonly appointed by parties due to the several benefits of professional representation. However, it is necessary to differentiate in adjudication between the expert witness appointed by the referring party and the expert witness appointed by the responding party (mainly because their scopes of work differ).

If the expert witness in adjudication was appointed by the referring party then "the expert may be required to act initially in an advisory capacity, exactly as in litigation, and then to produce an expert report" (Armes 2015). Thus, the referring party's expert witness would naturally have enough time to fully carry out his job. Whereas, if the expert witness was appointed by the responding party, he would probably have little time to "react" to the referral (including reports produced by the referring party's expert witness) and to produce his own expert report. Hence, the expert appointed by the responding party might be put at a disadvantage, **unless he had been engaged at an earlier phase by the responding party in an advisory capacity.** Besides, the responding party's expert witness, if appointed[2], might not have enough time to properly investigate all the facts of the case himself. He might be forced instead to rely on the evidence provided by the party instructing him or by the referring party (Armes 2015).

[2] The responding party may be unable to react quickly and appoint its own expert witness.

According to the FIDIC claim and dispute timeline, the expert witness appointed by the referring party has **up to 70 days** (28 days from the rendering of the determination plus 42 days from the date of issuance of notice of dissatisfaction) to refer the matter to adjudication and prepare the Referral document. By that, that expert witness, unlike the one appointed by the responding party, would have plenty of time to prepare his case **before adjudication even starts.** After adjudication starts**,** both party-appointed expert witnesses would be expected to submit their reports, give evidence, and/or get questioned by the adjudicator at the hearing. There is usually no time for the experts to exchange reports.

Finally, there are no specific rules expressing and codifying the duties of these party-appointed expert witnesses in adjudication. Yet, the following can be considered as a helpful guidance: "it is vital that an expert involved in adjudication retains his independence and is seen to do so at every stage of the process. It is also important that **his report makes it clear that his overriding duty is to the Adjudicator, above that of the party instructing him.** To the extent they are relevant, he should act in accordance with the main principles set out in CPR35. He should also comply with his own professional standards and with the requirements and membership rules of professional institutions such as the Academy of Experts, if applicable" (Farr 2006).

2.8.1.3.2 Expert Witness in Arbitration

The expert witness in arbitration could be one of the following:

a) Tribunal-appointed Expert Witness:

Moving on to the expert witness appointed by the arbitrators/arbitration tribunal, according to the international arbitration practice guideline, for the arbitrators

to be satisfied about the appointed expert witness, the expert should have the required qualifications and expertise, should be independent and impartial, and should be able to dedicate the needed time for fulfilling his duties (CIArb 2015).

Moreover, not only the arbitrators must be satisfied about the expert witness's appointment. It is also important to attain the parties' agreement to the expert "in order to reduce the risk of later challenges to the expert, their expert report and/or any award relying on it" (CIArb 2015).

As for the fees for appointing the tribunal-appointed expert witness, they are "added to the arbitrators' expenses". However, generally, appointing such an expert witness in particular is considered a cost-effective option.

b) Single Joint Expert (Jointly-appointed Expert Witness):

The Single Joint Expert (jointly-appointed expert witness) is the expert witness that the parties jointly agree to appoint. Parties mainly appoint such an expert jointly to avoid conflicting expert evidence and to save on costs and time. The Single Joint Expert (SJE) is appointed to deliver evidence on a matter on which both parties wish to provide expert evidence. In international arbitration, if it is decided that a single joint expert is to be appointed, parties will have to agree on the expert, on the instructions to be given to the expert, and on the remuneration of that expert. In case of a failure to agree, the arbitrators must determine just how to proceed.

Even though this expert witness is appointed through joint agreement of the parties and owes an equal duty to the parties, the single joint expert's overriding duty must be to the tribunal.

c) Party-appointed Expert Witness:

As previously mentioned in adjudication, the party-appointed expert witness, who is retained by one party, voluntarily accepts to perform a professional duty in exchange for monetary remuneration. Nonetheless, even though he is appointed by a party, he has an overriding duty to the tribunal and plays a role in guiding the tribunal. Sets of rules (like Part 35 Civil Procedure Rules), protocols, and case law provide guidance for the expert witness on such a duty.

Engaging party-appointed expert witnesses is a frequent practice in arbitration, as the parties have the right to submit evidence and to be heard. Moreover, parties are encouraged to engage such experts in order to help make the case persuasive.

Party-appointed expert witnesses "do not usually act solely as witnesses, but perform substantial pretrial work…They function as paid advisors and as paid advocates" (Murphy v. AA Mathews 1992). For this reason, in practice, when appointing expert witnesses, parties do not usually appoint additional expert advisers (due to the "duality" of the role of party-appointed expert witnesses).

Lastly, with respect to the procedure of appointment of party-appointed experts in international arbitration, "each party is responsible for the selection and appointment of their own expert without the need to consult with the other party or the arbitrators" (CIArb 2015).

2.8.1.3.3 Emerging Process for Expert Witnesses

Hot-tubbing, also known as expert conferencing or concurrent evidence, is a unique process in respect to the presentation of witness testimony in arbitration or litigation. Instead of having the expert witnesses testify sequentially or back to back,

hot-tubbing allows the witnesses (whether fact or expert witnesses) to be questioned simultaneously on particular topics.

The goals of expert witness hot-tubbing include: saving time during proceedings, saving costs during hearings, enhancing the quality and effectiveness of expert witness testimony/opinion, and assisting the court/tribunal in understanding complex technical issues in dispute (Zack 2019).

The basic process for hot-tubbing of party-appointed expert witnesses, according to James G. Zack, includes (but is not limited to):

- Early expert conference, where party-appointed expert witnesses meet for the purpose of agreeing mainly on the claim methodology, key source documents to be reviewed, etc.
- Preparation and exchange of draft reports (report by each party-appointed expert) between the expert witnesses in order to share comments. These comments would be addressed in each expert witness's final analyses.
- Publishing a joint report outlining the points of agreements and disagreements (along with the reasons for disagreement) between the expert witnesses. This report, which clarifies the extent of experts' agreement and focuses on disputed issues, is used by the court or tribunal to structure the agenda for expert testimony.
- Holding a hot-tubbing session that focuses on issues of disagreement.

At the hot-tubbing session of the party-appointed expert witnesses, experts take the witness stand together (to give a summary of their opinions and views of the opposing expert's opinion) and get examined at the same time. The court/tribunal hears

both sides of the issues in dispute sequentially and chairs a discussion between the experts on the unresolved issues.

As far as the questioning in hot-tubbing, each expert witness may be questioned by the court/tribunal, or directly by the other expert (and may in some cases be questioned by attorneys), and the expert witnesses may discuss or respond to the answers from the other expert witnesses.

Figure 1 below presents a summary of the process mentioned above.

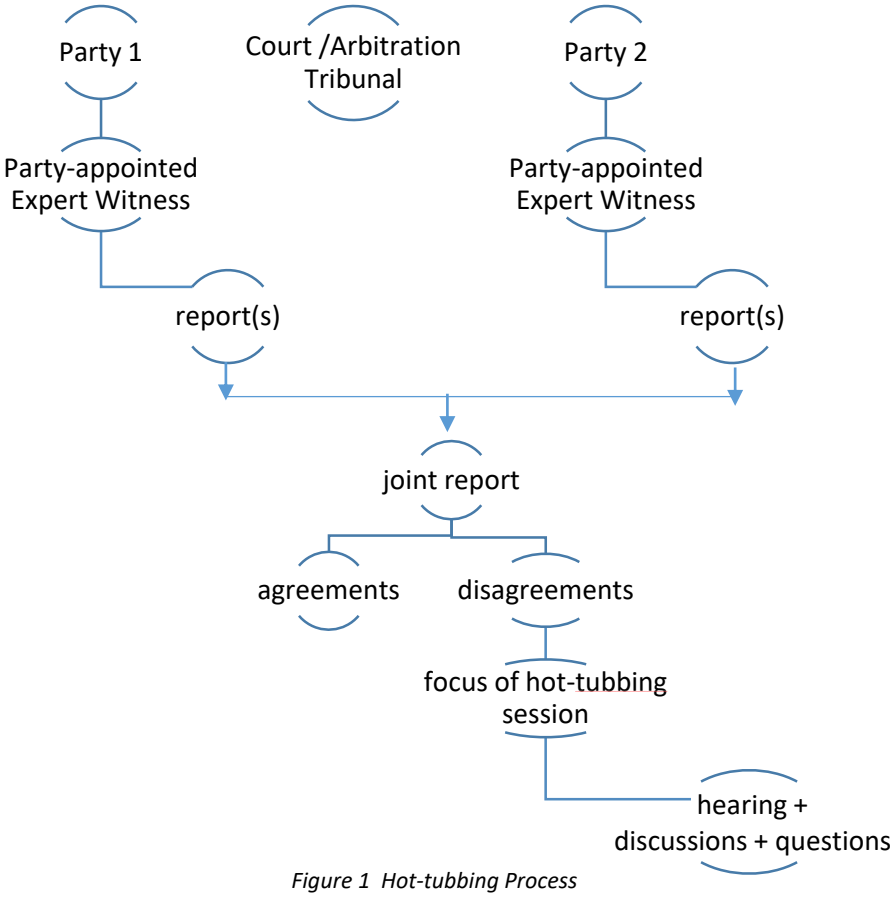


Figure 1 Hot-tubbing Process

2.8.1.3.4 Expert Witness versus Fact Witness

Unlike an expert witness, the fact witness is not appointed to provide opinion, but to testify about facts. USlegal defines the fact witness as an individual with enough knowledge to testify about facts and/or events which he observed or was involved in. **A fact witness does not have to be an expert to testify**. The fact witness's testimony may include an opinion only when the opinion is based on his actual perception or when the opinion is necessary for understanding his testimony (De Fabrique 2011). According to the International Criminal Court (ICC), fact witnesses "can be crimes-based witnesses when they have suffered harm and testify as witnesses about what happened to them". Nevertheless, regardless if the testifying fact witness is crime-based or not, he is court-ordered (LIA Administrators & Insurance Services 2019).

2.8.1.4 Assessor

2.8.1.4.1 Assessor in Adjudication

The adjudicator/ adjudication board might need the assistance of an expert assessor, primarily to:

- Advise on issues that are not within the adjudicator/ tribunal's knowledge (any report produced by the assessor must be served to parties to be commented on).
- Review the evidence presented by the party-appointed expert witnesses.
- Support the adjudicator in weighing the evidence (Armes 2015).

- Conduct informal discussions with the parties on technical or legal issues (Horne and Mullen 2013).
- Conduct meetings with the party appointed experts to narrow down issues.

2.8.1.4.2 Assessor in Arbitration

In certain jurisdictions, an assessor might be appointed in arbitration to explain any difficult issue and advise the tribunal, prepare the tribunal for evidence of party-appointed expert witnesses (International Chamber of Commerce 2010), evaluate and interpret evidence, and/or assist in reviewing and assessing detailed data (CIArb 2015). Appointing such an assessor can save on time and costs.

2.8.2 Extent of Formality of Engagement of Experts

The level of formality of the expert roles mentioned above varies depending on the type of expert. For example, there is a huge difference between the level of formality of the 'expert adviser' role and the level of formality of the 'tribunal-appointed expert witness' role.

Privately retained expert advisers are hardly ever visible to other parties, as they give their advice confidentially (Chelmick and Spalton 2018). These shadow experts can be considered to be an extension of the party appointing them. Whereas tribunal-appointed expert witnesses or appraisers openly give impartial evidence/valuation to the tribunal. Besides, as previously mentioned, these experts are usually known and approved by both parties.

On the other hand, the extent of formality is not clear for other expert roles, like the role of a party-appointed expert witness and the role of an expert assessor. Usually, the party-appointed expert witnesses do not solely act as witnesses, but also as paid expert advisers. The duality in their roles makes it hard to evaluate the extent of formality of their engagement.

In international arbitration, some rules and protocols, like the IBA Rules on the Taking of Evidence and the CIArb Protocol, were introduced in order to control this role duality and ensure the independence of the party-appointed experts. These rules and protocols encourage disclosure. For example, the IBA Rules request the submission of a statement of independence, declaring the party-appointed expert's past or present relationship with any of the parties, their legal advisors, and the arbitral tribunal. Thereby, such rules put the onus on the expert witness to assess the impact of particular connections (or relationships) on his impartiality. In addition, these rules use the disclosure tool to allow an opposing party to scrutinize the party-appointed expert's self-assessment of his impartiality.

As for the extent of formality of the expert assessor role, it cannot be considered to be fixed. This is because at times, the function of an assessor can be similar to that of an expert witness, particularly a tribunal-appointed expert witness (Horne and Mullen 2013), while at other times, his function can simply be advisory. In the latter case, the assessor's advice may be taken in private without giving the parties a chance to comment. Hence, the level of formality of the expert assessor role depends on the scope of his functions.

2.8.3 Insurance and Liability Limitation Safeguards

2.8.3.1 Insurance

Professional indemnity or liability insurance provides coverage to the experts, providing professional advice or service, against legal costs, damages, or financial loss resulting from claims. It protects the experts from liability as a result of negligence or "errors or omissions in the service provided as well as any alleged failure to perform on behalf of a client" (AEGIS). Consequently, professional indemnity insurance can be of great importance to experts. As such, professionals are required by their primary professional body to have it. The Expert Witness Institute, for example, requires its members to carry professional indemnity insurance for their expert witness work.

Experts, including the experts defined above, having professional indemnity insurance, are advised to look at the terms of their insurance policies and discuss with their insurance brokers how the policy works, what does it cover, and the limit of indemnity provided.

2.8.3.2 Limitation of Liability

Limiting liability through the contract can be of great importance to experts as well. It is done through putting a clause in the contract to cap liability (Pamplin 2014). However, it is essential to understand the difference between a limitation of liability clause and an exculpatory clause.

An "exculpatory clause" fully relieves the party from its future negligent acts, and is generally "**disfavored under the law of most states**" (Katzenbach 2014). Only limited cases did enforce that type of clauses. However, generally, in order for the

clause to be an effective waiver of claims of negligence, the language must specifically state that it is a release of future negligence.

Whereas a "limitation of liability clause" limits/caps the amount of damages (or losses/costs) recoverable for the negligent acts of a party. Depending on the jurisdiction, the clause can be either enforceable, disfavored, or unenforceable. For example, in California, in the case of *Greenwood v. Murphy*, the court of appeals found the clause unenforceable and noted the factors that must be considered to determine enforceability, including (but not limited to): "whether the parties [to the contract] in this case had an opportunity to accept, reject, or modify the limitation of liability clause, whether the parties were of relative equal bargaining power, and whether it was an arm's length transaction" (Katzenbach 2014). So, it is important to understand the jurisdiction involved, in order to recognize the enforceability of these clauses (according to the jurisdiction's case law and/or statutory law) and the factors considered by the courts. Yet, in general, for the best chance of enforceability, the contractual language must be clear, unambiguous, unmistakable, and conspicuous. Also, it is fundamental for the clause to be negotiated and for the parties to have relatively equal bargaining power.

Lastly, aside from the insurance and liability limitation safeguards, immunity against negligence liability could also be a source of coverage for some experts. As shown in Chapter 4, there are cases where experts were shielded from liability by immunity (*Clark v. Grigson, Kahn v. Burman, Bruce v. Byrne-Stevens & Assocs. Engineers, Inc, S.T.J. v. P.M., Panitz v. Behrend*, etc.), but conversely there were cases that did not grant experts immunity (*James v. Brown, Levine v. Wiss & Co., Mattco Forge, Inc. v. Arthur Young & Co., Murphy v. AA Mathews, LLMD of Michigan Inc. v. Jackson-Cross Co., Pollock v. Panjabi, Boyes-Bogie v. Horvitz, Ellison v. Campbell*,

Jones v. Kaney, *Gammel v. Ernst & Ernst*, etc.). Such cases are analyzed in detail in Chapter 4 in order to reveal the main categories of experts entitled to immunity from negligence liability.

CHAPTER 3

MAPPING OF EXPERT ROLES ONTO THE CONSTRUCTION CLAIM AND DISPUTE RESOLUTION TIMELINE (FIDIC)

3.1 Preamble

Now that the types of expert roles that can be engaged during the construction claim and dispute resolution process are defined, the next step is to expand on the nature of involvement of these expert roles during each phase of the process.

For that purpose, this chapter will furnish the scenarios of experts' involvement during each phase of the construction claim and dispute resolution process. It will then be possible to extract, from the scenarios, all types of additional expertise typically or possibly engaged during each phase. Subsequently, the stations of experts' interventions along the claim and dispute timeline will then be highlighted.

3.2 Phases of the FIDIC Construction Claim and Dispute Resolution Timeline

This research will adopt the FIDIC claim and dispute timeline (figure 2), mainly because the FIDIC conditions are used worldwide and widely on international projects. In other words, the timeline adopted in this research denotes the construction claim and dispute resolution mechanism[3] under the latest edition (2017) of the FIDIC standard conditions.

[3] Refer to section 2.5.1 for the detailed claim and dispute resolution mechanism.

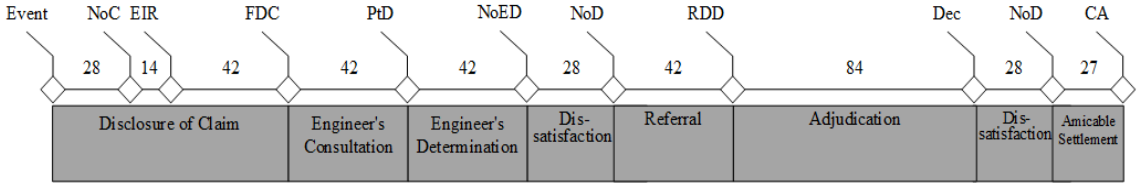


Figure 2 FIDIC's claim and dispute resolution timeline (Barakat et al. 2019).
NoC= Notice of Claim; EIR= Engineer's Initial Response; FDC= Fully Detailed Claim; PtD= Proceed to Give Determination; NoED= Notice of Engineer's Determination; NoD= Notice of Dissatisfaction; RDD= Refer Dispute to Dispute Avoidance or Adjudication Board; Dec= dispute avoidance or adjudication board's decision; CA= commencement of arbitration.

As shown in figure 2, FIDIC's construction claim and dispute mechanism constitutes of 8 phases (preceding **arbitration)**. In order, these 8 phases are:

- The Disclosure of Claim Phase, in which the claimant submits its claim.
- The Engineer's Consultation Phase, where the Engineer consults the parties to try to reach an agreement (discussions may take place).
- The Engineer's Determination Phase, in which the Engineer proceeds to give his determination.
- The First Dissatisfaction Phase, in which the party dissatisfied with the Engineer's determination issues a notice of dissatisfaction.
- The Referral Phase, wherein the dissatisfied party, who previously issued the notice of dissatisfaction, refers the matter to adjudication (informal discussions between the parties might sometimes take place during this phase).
- The Adjudication Phase, in which the dispute adjudication board gives a decision.
- The Second Dissatisfaction Phase, in which the party objecting to the dispute adjudication board's decision issues a notice of dissatisfaction.
- The Amicable Settlement Phase, where the parties try to resolve disputes amicably.

3.3 Scenarios for the Involvement of Experts in the Different Construction Claim and Dispute Resolution Phases

There are several different scenarios for how each timeline phase can go. Scenarios differ with respect to the number of additional experts involved, their type, and the party appointing them. Examining the possible scenarios for each phase helps in developing a better understanding of the experts' involvement and intervention along the claim and dispute timeline.

The sections below explore the various scenarios for each phase of the construction claim and dispute resolution process.

3.3.1 Scenarios of Phase 1- Disclosure of Claim

Two scenarios exist for the Disclosure of Claim Phase. Figure 3 represents these two scenarios in the form of models (referred to as Scenarios 1 and 2).

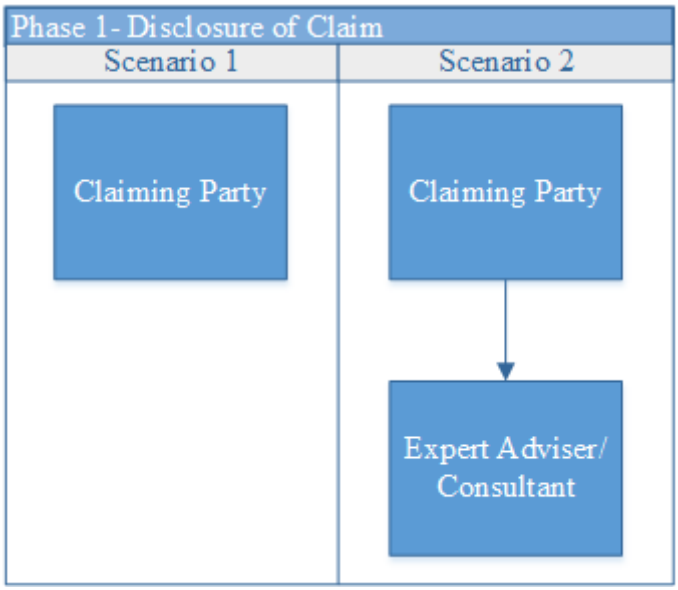


Figure 3 Scenarios of Phase 1 - Disclosure of Claim

1. Scenario 1: As represented in figure 3, under scenario 1 of the the Disclosure of Claim Phase, no additional experts are retained by the claiming party (the claiming party could be either one of the parties). Thus, under this scenario, the claiming party submits both the notice of claim and the fully detailed claim, within the relevant time limits, without receiving any help from an expert adviser/consultant. This scenario typically applies when the claiming party faces no difficulties in preparing and presenting the claim.
2. Scenario 2: Under scenario 2 of the Disclosure of Claim Phase, for the purpose of preparing the claim, the claiming party retains an expert adviser/consultant[4] in order to seek his advice on a specialist or technical issue that is within his expertise. That advice can even be delivered in the form of signed reports. For example, under this scenario, the claiming party can retain the expert adviser/consultant to help it meet the defined time limits and notice requirements, establish the contractual or legal basis of the claim, prepare the contemporary records and claim particulars, etc.

3.3.2 Scenarios of Phase 2- Engineer's Consultation

As shown in figure 4 below, there are two scenarios for phase 2 of the claim and dispute timeline: Scenarios 1 and 2. Under scenario 1, no additional experts are engaged, while under scenario 2, an expert adviser is retained by the Engineer, the owner, and/or the contractor

[4] As it will be seen in later phases, the expert adviser can be involved "at any stage of the problem, dispute or claim," (Buckley 2016) not only during the Disclosure of Claim Phase, and will perform his duties as per the requirements of each stage.

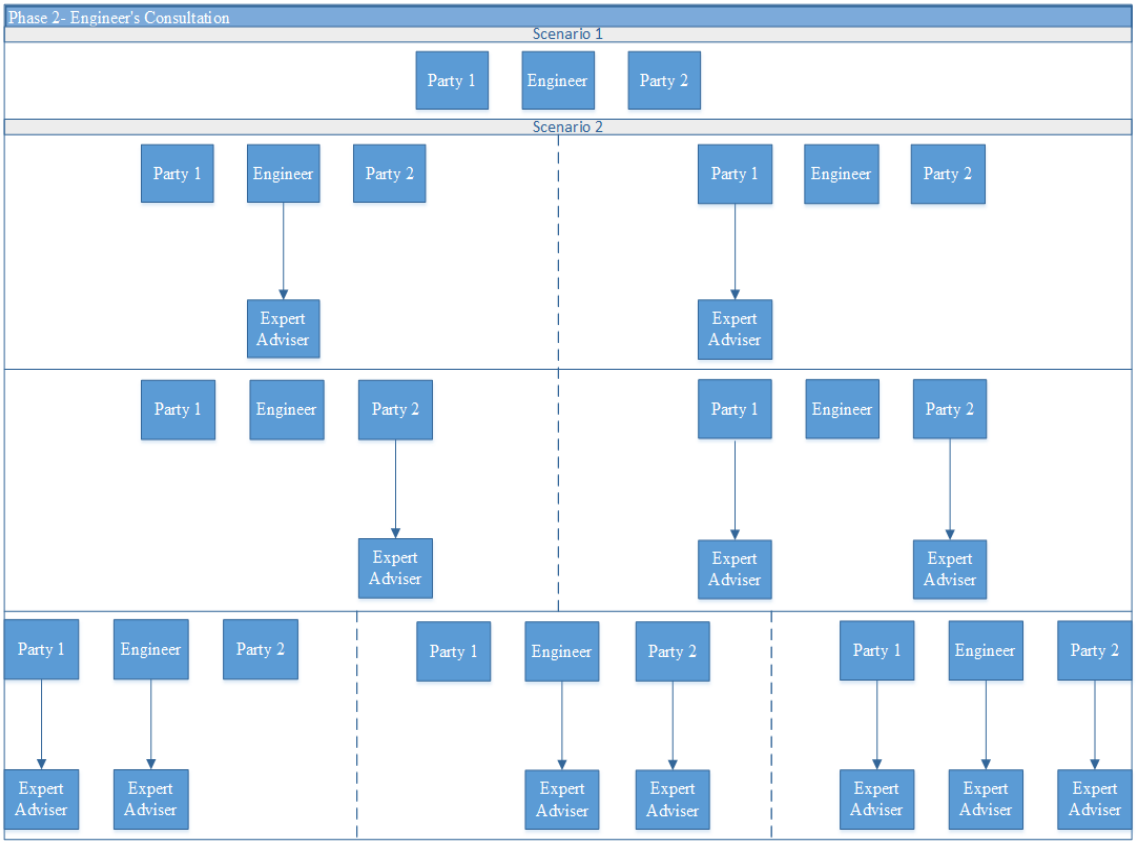


Figure 4 Scenarios of Phase 2 - Engineer's Consultation. Party 1=Owner; Party 2=Contractor.

1. Scenario 1: As per the FIDIC conditions, the Engineer conducts consultations with the parties before giving his determination, either jointly or separately, in an attempt to reach agreement. Under this scenario, the Engineer does so without appointing his own expert adviser/consultant, bearing in mind that he's got what it takes to conduct the consultations on his own. Parties do not employ any independent expert/adviser under this scenario either.
2. Scenario 2: Under scenario 2 of the Engineer's Consultation Phase, it is possible for the Engineer, the owner, and/or the contractor to appoint an expert adviser/consultant. The adviser's support (technical support, contractual support, legal support, etc.) would

be needed for the consultations and/or the discussions[5] of this phase. As figure 4 demonstrates, it is possible under this scenario for multiple advisers (serving different clients) to be appointed at the same time. Figure 9 shows that under this scenario, it can be that: the Engineer appoints his own expert adviser, either party appoints its own expert adviser, both parties appoint expert advisers at the same time, the Engineer and one of the parties appoint expert advisers simultaneoulsy, and finally that the Engineer and both parties appoint expert advisers at the same time.

3.3.3 Scenarios of Phase 3- Engineer's Determination

The two models in figure 5, denoted as Scenarios 1 and 2, demonstrate the two possible scenarios of phase 3 of the claim and dispute timeline. Using these scenarios, the Engineer proceeds to make a fair determination (after a failed attempt to reach an agreement during the previous phase).

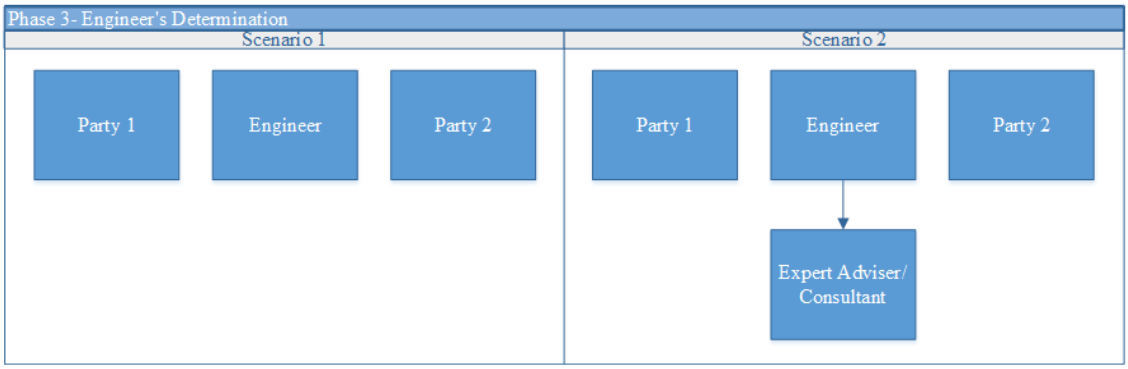


Figure 5 Scenarios of Phase 3- Engineer's Determination. Party 1=Owner; Party 2=Contractor.

[5] According to sub-clause 3.7.1 in the 2017 Red Book, Yellow Book, and its corresponding clause in the 2017 Silver Book, the Engineer, during consultation, "shall consult with both Parties jointly and/or separately, and shall encourage **discussion** between the Parties in an endeavour to reach agreement" (GILLION et al. 2018).

1. Scenario 1: Under this scenario, the Engineer makes use of his qualified staff to prepare and give his determination, without having to receive help from any type of additional expertise (as apparent in figure 5 above).
2. Scenario 2: Under scenario 2 of the Engineer's Determination Phase, the Engineer receives assistance or advice from an expert adviser/consultant to be able to make his determination (that advice could be delivered in the form of signed advisory reports, or otherwise). The Engineer, like the Initial Decision Maker under AIA, has the right to request additional supporting data from "persons with special knowledge or expertise" when he "believes additional supporting information would be helpful" for his determination (AIA Risk Management Program 2020).

3.3.4 Scenarios of Phase 4- Dissatisfaction

There are two available scenarios for the party if it decides to go through with its objection to the determination (previously given by the Engineer). These scenarios are demonstrated in figure 6 below.

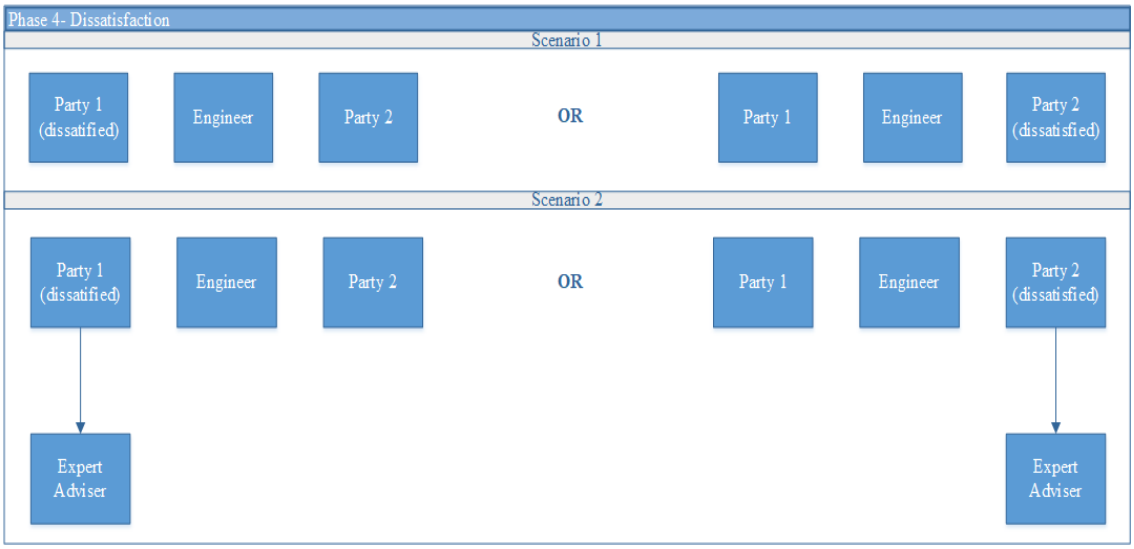


Figure 6 Scenarios of Phase 4- Dissatisfaction. Party 1=Owner; Party 2=Contractor.

Under the two scenarios, the party objecting to the Engineer's determination (could be either the owner of the contractor) issues a notice of dissatisfaction within the relevant timeframe. However, unlike in scenario 1, the dissatisfied party in scenario 2 retains an expert adviser.

3.3.5 Scenarios of Phase 5- Referral

The dissatisfied party should not only issue a notice of dissatisfaction, but, for adjudication to take place, the party must also refer the issue to adjudication. There are two scenarios for the referral phase. Scenario 1 is the scenario where neither the Engineer, nor the parties, engage external expertise. Scenario 2 is contrary to Scenario 1. Figure 7 and figure 8 display the scenarios in case the owner is the dissatisfied party and in case contractor is the dissatisfied one, respectively.

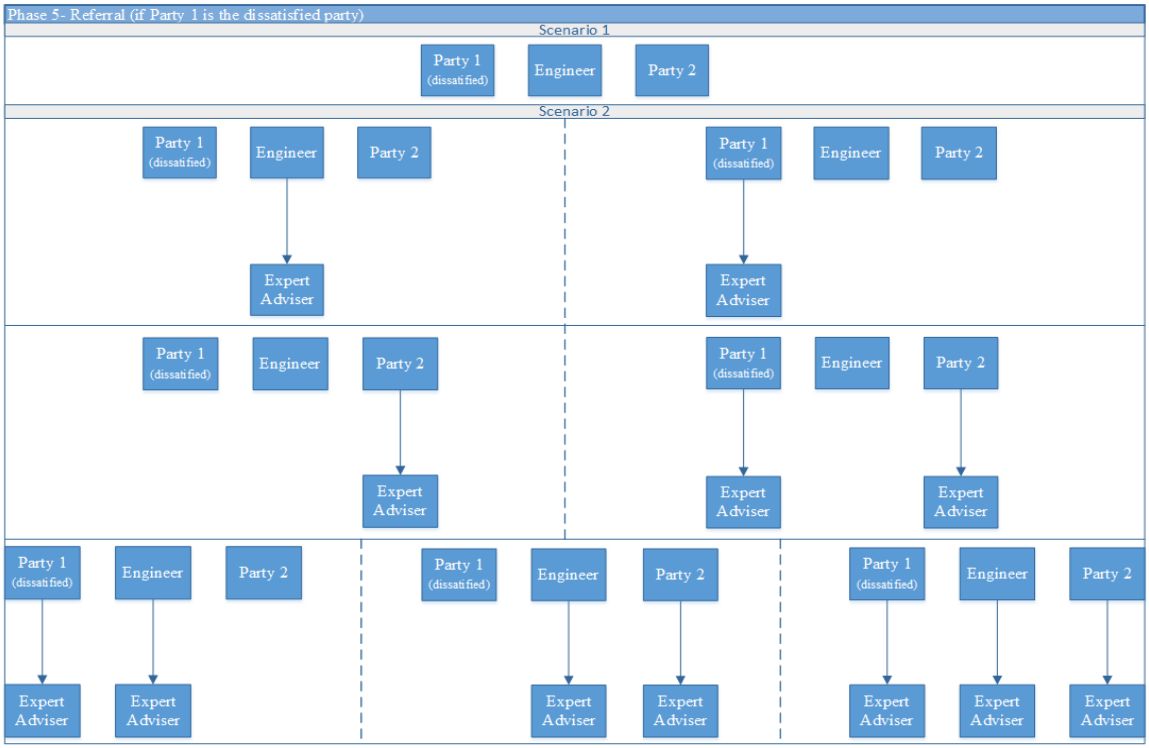


Figure 7 Scenarios of Phase 5- Referral (When Party 1 is the Dissatisfied Party). Party 1-dissatisfied =Owner; Party 2 =Contractor.

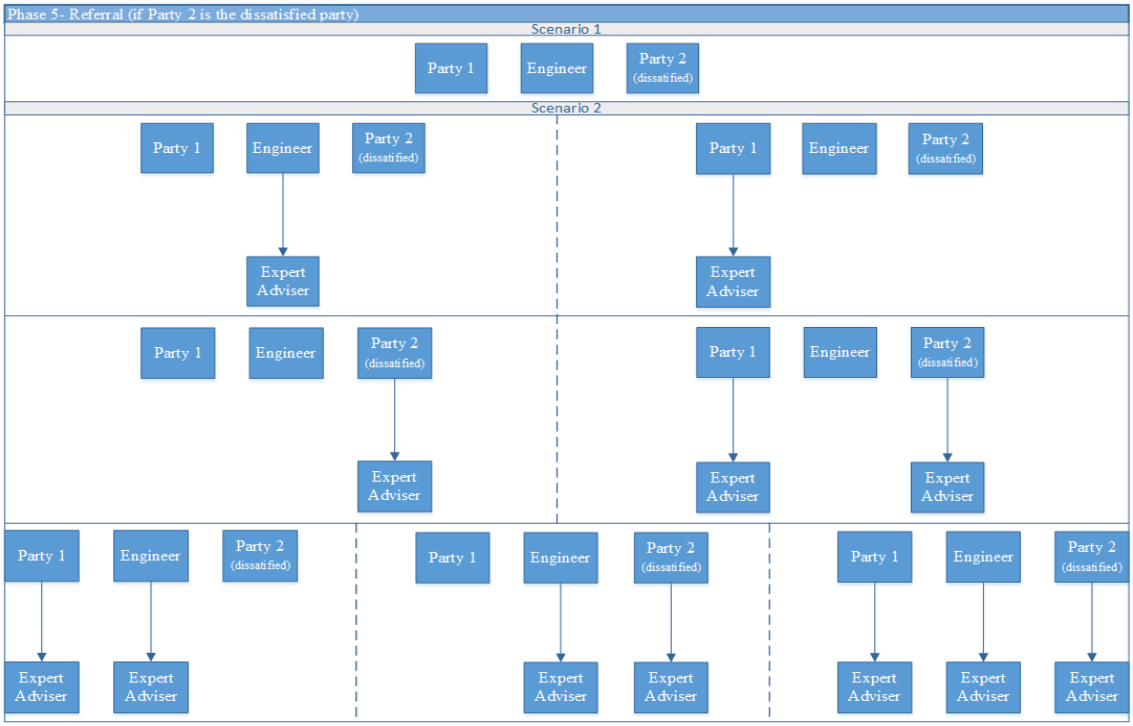


Figure 8 Scenarios of Phase 5- Referral (When Party 2 is the Dissatisfied Party). Party 1 =Owner; Party 2-dissatisfied =Contractor.

Under the two scenarios of the referral phase, the party who previously issued the notice of dissatisfaction refers the matter to adjudication within 42 days from the date of submitting the notice. Nevertheless, only scenario 2 of the referral phase includes the appointment of expert adviser(s). As presented in figure 9, during the referral phase, it can be that: the Engineer appoints an expert adviser, either party appoints an expert adviser, both parties appoint expert advisers at the same time, the Engineer and one of the parties appoint expert advisers at the same time, or that all participants (the Engineer and both parties) appoint expert advisers at the same time. The appointment of an adviser by the Engineer or by the non-dissatisfied party is mainly for the purpose of supporting the informal discussions. However, these discussions do not necessarily take place during this phase.

Figure 9 summarizes the scenarios of experts' involvement during phases 1-5.

Phase 1- Disclosure of Claim		
Claiming Party		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser/Consultant	Claiming Party
Phase 2- Engineer's Consultation		
Party 1 Engineer Party 2		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser(s)	(Engineer; P1; P2; P1 and P2; P1 and Engineer; P2 and Engineer; Engineer and P1 and P2)
Phase 3- Engineer's Determination		
Party 1 Engineer Party 2		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser/Consultant	Engineer
Phase 4- Dissatisfaction		
Party 1 (dissatified) Engineer Party 2 **OR** Party 1 Engineer Party 2 (dissatisfied)		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser/Consultant	Dissatisfied Party
Phase 5- Referral		
Party 1 (dissatified) Engineer Party 2 **OR** Party 1 Engineer Party 2 (dissatisfied)		
Scenario	Scenario	Scenario
Scenario 1	-	-
Scenario 2	Expert Adviser(s)	(Engineer; Dissatisfied Party; Other Party; Dissatified Party and Other Party; Dissatisfied Party and Engineer; Other Party and Engineer; Engineer and Dissatisfied Party and Other Party)

Figure 9 Summary of Scenarios of Phases 1-5. P1= Party 1 (Owner); P2= Party 2 (Contractor).

3.3.6 Scenarios of Phase 6- Adjudication

Seven possible scenarios of phase 6 of the claim and dispute timeline can be deduced. Figure 10 illustrated these scenarios in the form of models, whereas figure 13 provides a summary of the scenarios.

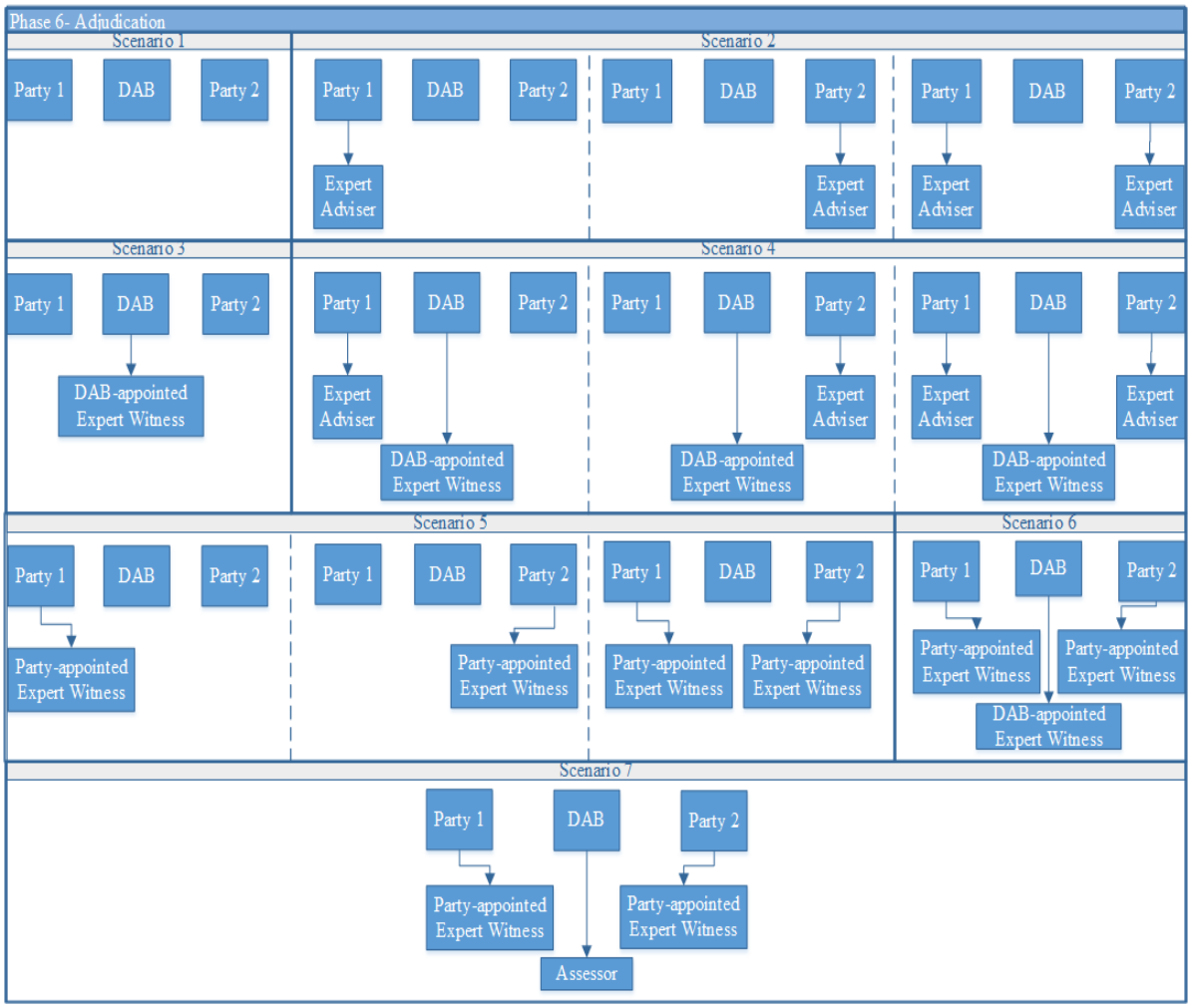


Figure 10 Scenarios of Phase 6- Adjudication. Party 1=Owner; Party 2=Contractor.

1. Scenario 1: Under scenario 1, adjudication takes place without employing any additional/external experts.

2. Scenario 2: Under scenario 2, one or both parties retain their own expert adviser. This scenario takes place when the DAB has chosen to take no expert witness evidence at all (Horne and Mullen 2013).

As it can be seen in figure 10, under scenarios 1 and 2, the DAB engages no additional expertise (be it expert witness or not). The reason might be that under these scenarios, the DAB itself embodies the expertise needed "to understand complex technical or legal issues" (Armes 2015).

3. Scenario 3: Under scenario 3, the DAB decides to appoint an expert witness, most likely because it does not have the experience and/or expertise needed for the particular issue in dispute.

4. Scenario 4: Under this scenario, the DAB appoints the expert witness, while one or both of the parties have expert adviser(s).

5. Scenario 5: Under scenario 5, the referring party, the responding party, or both bring in the services of an expert witness. In some cases, the responding party may not have the chance to appoint its own expert witness. However, if it does, that expert witness, as discussed previously, might be at a disadvantage.

6. Scenario 6: Under scenario 6 of adjudication, both the DAB and the party/parties appoint expert witnesses. This scenario can take place when the DAB chooses to appoint a DAB-appointed expert witness, in addition to the party-appointed expert witnesses, in order to avoid the difficulties created by the party-appointed experts (such difficulties may include receiving conflicting opinions from the party-appointed expert witnesses).

7. Scenario 7: Under scenario 7, the DAB obtains the help of an expert assessor. The expert assessor is particularly needed under this scenario to aid in reviewing and weighing the evidence presented by the party-appointed expert witnesses.

3.3.7 Scenarios of Phase 7- Dissatisfaction

Again, there are two possible scenarios for the party that decides to go through with its objection to the DAB's decision (figure 11).

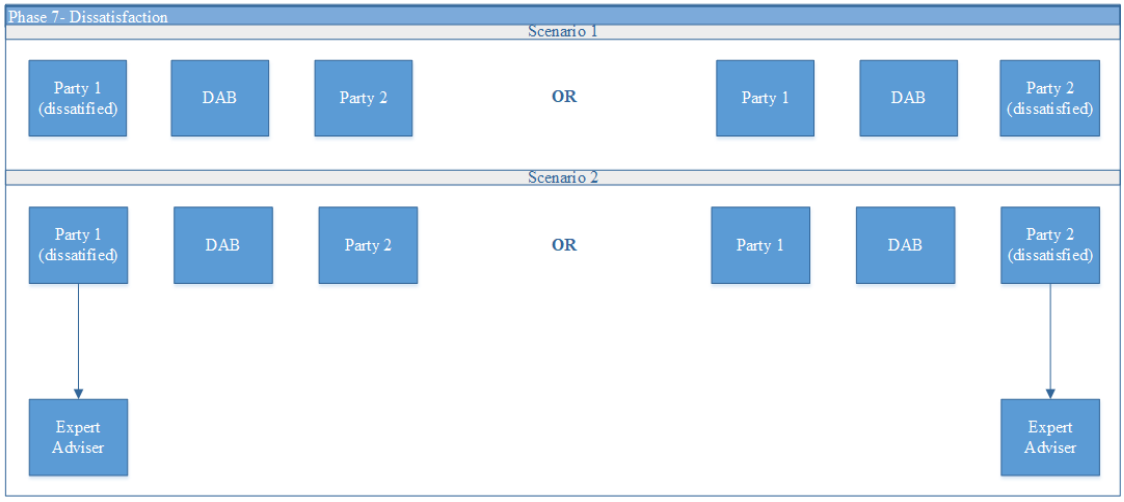


Figure 11 Scenarios of Phase 7- Dissatisfaction. Party 1=Owner; Party 2=Contractor.

Under the two scenarios, the party dissatisfied with the DAB's decision (could be either one of the parties: the owner or the contractor) gives a notice of dissatisfaction within the relevant time bar. But, unlike in scenario 1, the dissatisfied party in scenario 2 receives assistance from an expert adviser. The dissatisfied party might, for example, ask for help in setting out the matter in dispute and the reason(s) for dissatisfaction.

3.3.8 Scenarios of Phase 8- Amicable Settlement: Expert Determination

With respect to Expert Determination, there are two possible scenarios: one that involves expert adviser(s)/consultant(s), and one that doesn't. The two scenarios are demonstrated in figure 12 below.

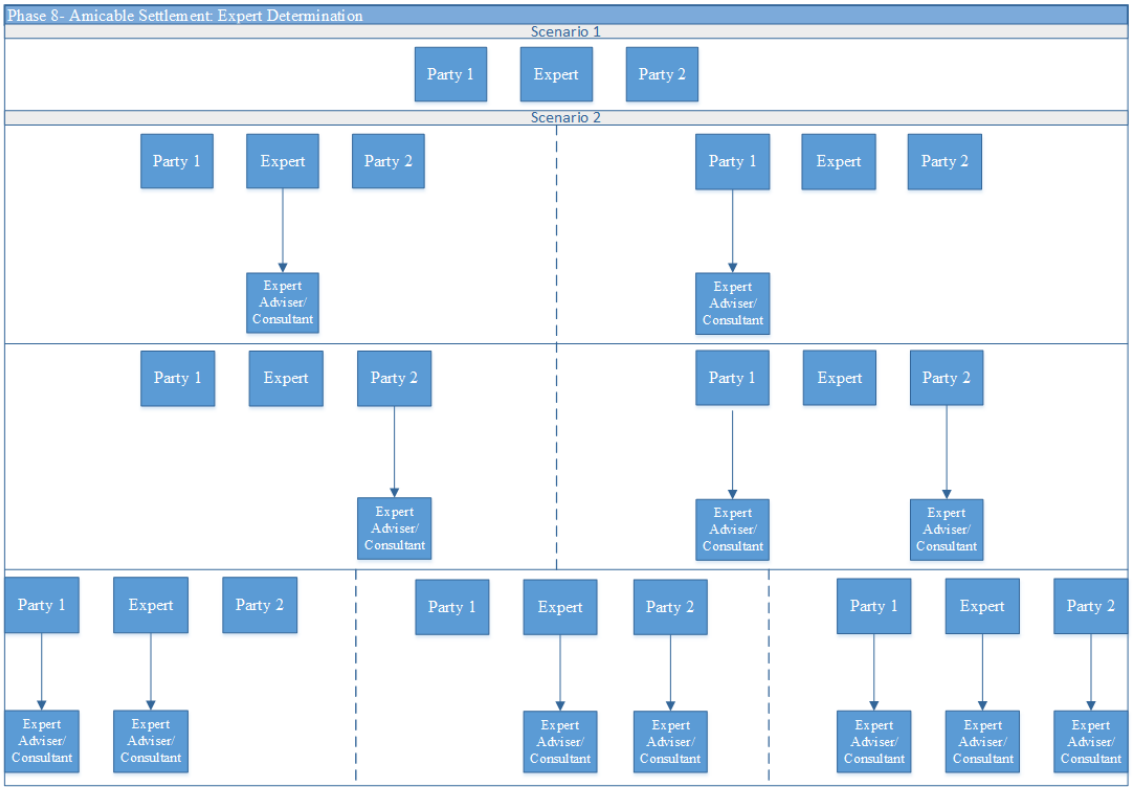


Figure 12 Scenarios of Phase 8- Expert Determination. Party 1=Owner; Party 2=Contractor.

1. Scenario 1: Under scenario 1 of Expert Determination, the expert (ED), being experienced in the subject matter or area of dispute, decides on the issue(s) in dispute without engaging any expert adviser or witness[6] (expert witnesses usually have minimal or no role in the expert determination process (Horne and Mullen 2013)).

[6] The terms of engagement of the expert determines whether he is permitted to interview witnesses (or other experts in sub-fields if permitted) and take their testimony.

2. Scenario 2: Under scenario 2, an expert adviser/consultant can be instructed by the expert (to assist him in reaching his determination) or by any party. As shown in figure 13, during this phase, it may be that: the Engineer appoints the expert adviser, either party appoints the expert adviser, both parties appoint expert advisers at the same time, the Engineer and one of the parties appoint expert advisers at the same time, or that all participants, the Engineer and both parties, appoint expert advisers. Nevertheless, for the Engineer to be able to appoint an adviser, the expert determination clauses or terms of reference need to allow it.

Figure 13 summarizes the scenarios of experts' involvement during phases 6-8.

Phase 6- Adjudication		
Party 1 DAB Party 2		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser(s)	(P1; P2; P1 and P2)
Scenario 3	DAB-appointed Expert Witness	DAB
Scenario 4	Expert Adviser(s)	(P1; P2; P1 and P2)
	DAB-appointed Expert Witness	DAB
Scenario 5	Party-appointed Expert Witness(s)	(P1; P2; P1 and P2)
Scenario 6	DAB-appointed Expert Witness	DAB
	Party-appointed Expert Witnesses	P1 and P2
Scenario 7	Party-appointed Expert Witnesses	P1 and P2
	Assessor	DAB
Phase 7- Dissatisfaction		
Party 1 (dissatisfied) DAB Party 2 **OR** Party 1 DAB Party 2 (dissatisfied)		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser	Dissatisfied Party
Phase 8- Amicable Settlement: Expert Determination		
Party 1 Expert Party 2		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser(s)	(Expert; P1; P2; P1 and P2; P1 and Expert; P2 and Expert; Expert and P1 and P2)

Figure 13 Summary of Scenarios of Phases 6-8. P1= Party 1 (Owner); P2= Party 2 (Contractor).

3.3.9 Scenarios of Phase 9- Arbitration

3.3.9.1 Scenarios 1-15 of Arbitration

Fifteen possible scenarios of Arbitration are presented in the section below. Scenarios (1-8) are illustrated in figure 14, while Scenarios (9-15) are gathered in figure 15.

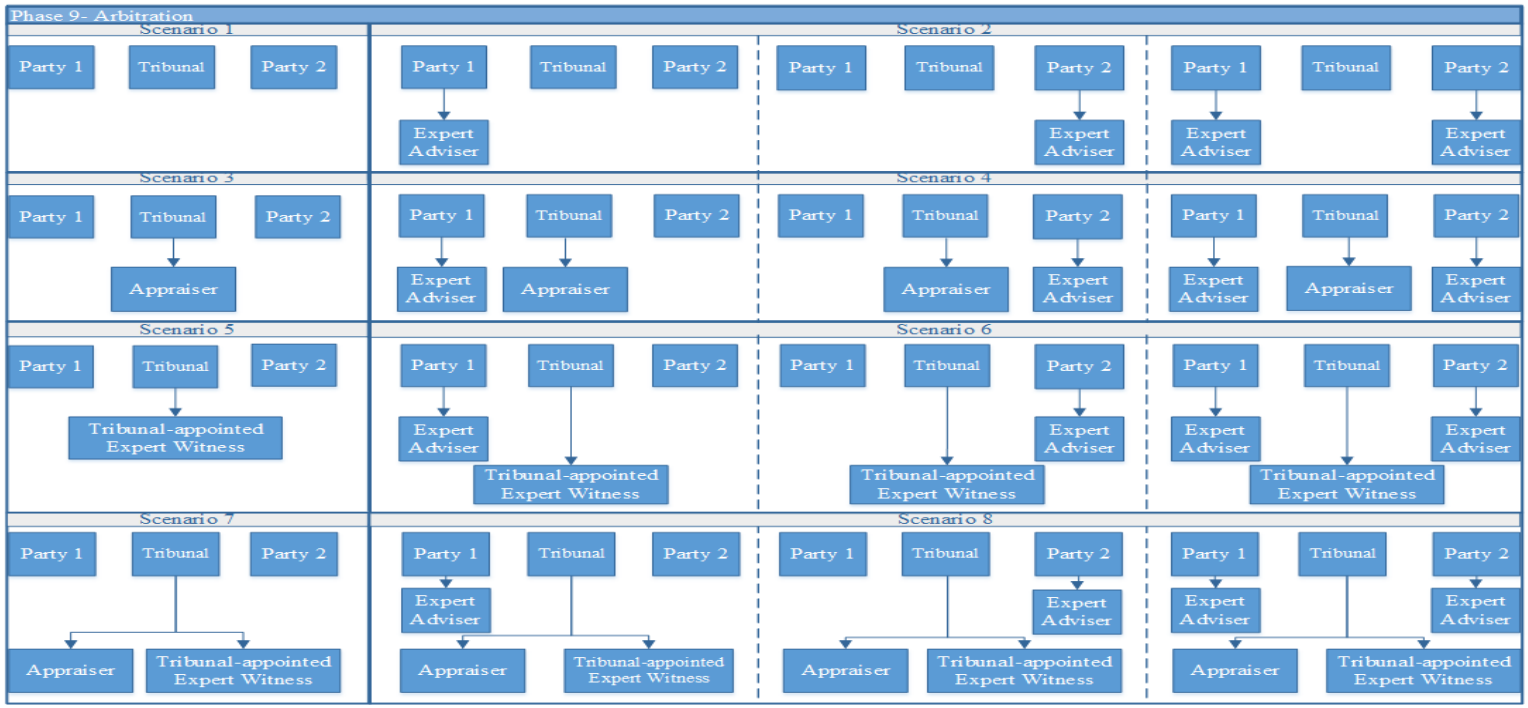


Figure 14 Scenarios 1-8 of Phase 9-Arbitration. Party 1=Owner; Party 2=Contractor.

Details of the arbitration scenarios are as follows:

1. Scenario 1: Under scenario 1 of Arbitration, no evidence is provided by expert witnesses[7]. This is mainly the case when parties agree to appoint arbitrator(s) having the expertise needed to decide on complex technical issues.
2. Scenario 2: Under scenario 2, a party (or both parties) appoints an expert adviser, who does not have a duty to the tribunal, to advise it on issues in dispute requiring special knowledge and/or experience. For example, the expert adviser could be appointed to aid in exploring a claim or defending it from behind the scenes.
3. Scenario 3: Under scenario 3, the tribunal appoints an expert appraiser or valuer, of special knowledge, technical skill, or expertise, to perform the discrete function of ascertainment of facts.
4. Scenario 4: Under this scenario, the tribunal appoints an appraiser and (one or both) parties appoint an expert adviser (to help them obtain their own valuations or assess the appraiser's work).
5. Scenario 5: Under scenario 5, the arbitration tribunal only appoints a tribunal-appointed expert witness. Scenario 5 might occur if:

- The terms of the dispute resolution procedure do not allow for party-appointed expert witnesses;
- The tribunal rejects to admit the evidence of the party-appointed expert witnesses; or
- The parties do not want to provide the tribunal with evidence (rarely the case).

[7] In international Arbitration, arbitrators should, in consultation with the parties, consider whether expert evidence is needed for any specific issue (CIArb 2015).

6. Scenario 6: Under this scenario, even when a tribunal-appointed expert witness is appointed, the party/parties have their own expert adviser(s). Yet, this scenario is costly.

7. Scenario 7 and Scenario 8: Under these scenarios, along with the tribunal-appointed expert witness, other experts are appointed. The two scenarios are combinations of previous scenarios.

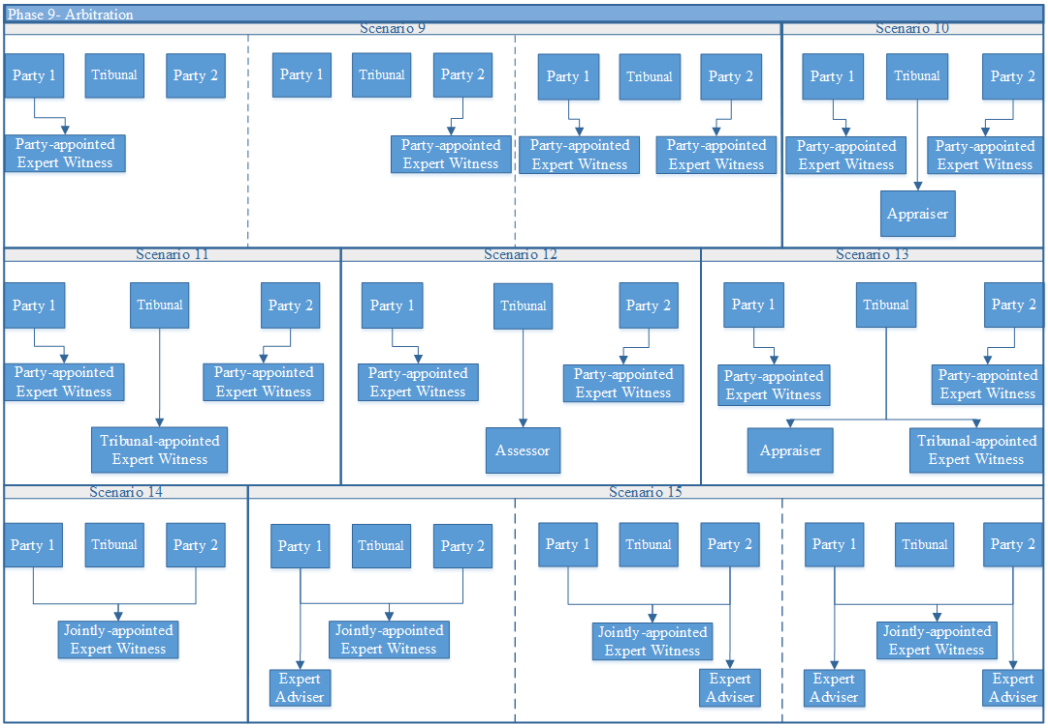


Figure 15 Scenarios 9-15 of Phase 9- Arbitration. Party 1=Owner; Party 2=Contractor.

8. Scenario 9: Under this scenario, evidence is taken from expert witnesses appointed by the parties. This is a common scenario, as previously mentioned.

9. Scenario 11: Under this scenario, the tribunal appoints a tribunal-appointed expert witness, despite the appointment of the party-appointed expert witness (es). Doing so is particularly appropriate if the tribunal needs support in deciding between the opinions of

the party-appointed expert witnesses (mainly on complex technical issues). However, going with such a scenario is costly and may delay the proceedings.

10. Scenario 10 and Scenario 13: Under these scenarios, expert witnesses are appointed in addition to the appraiser. These scenarios are combinations of previous scenarios.

11. Scenario 12: Under scenario 12, an assessor is appointed by the tribunal to explain difficult issues, advise it, prepare it for evidence of party-appointed expert witnesses, and help it in reviewing, evaluating, and/or interpreting evidence or detailed data. Substantial time and costs can be saved through this scenario.

12. Scenario 14: Under scenario 14, parties agree to jointly appoint a single expert witness. This scenario is most appropriate "where the cost and delay of resolving competing expert opinions would be disproportionate to the sums in dispute" (CIArb 2015).

13. Scenario 15: Under this scenario, appointing a single joint expert (jointly-appointed expert witness) does not prohibit a party from appointing its own expert adviser. Yet, the role of that party-appointed expert adviser would be restricted to giving advice and/or comments. For example, the expert adviser under this scenario can comment on the single joint expert's report (Horne and Mullen 2013).

3.3.9.2 Scenarios of Hot-tubbing

The two scenarios for hot-tubbing are represented by figure 16 and figure 17.

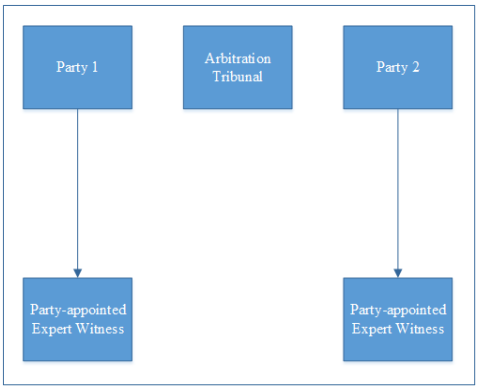


Figure 16 First Scenario of Hot-tubbing. Party 1=Owner; Party 2=Contractor

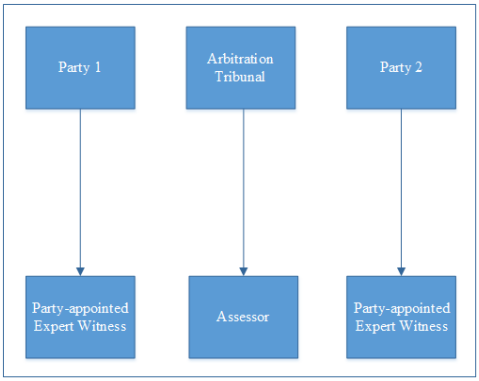


Figure 17 Second Scenario of Hot-tubbing. Party 1=Owner; Party 2=Contractor.

Under scenario 16 of arbitration (figure 18), the expert witnesses appointed by the parties are engaged in a hot-tubbing process. **This scenario is not common in adjudication as "neither the procedure, nor the usual timetable of adjudication, allow experts to meet in order to narrow issues and agree facts" (Farr 2006).**

Under scenario 17, which is also a hot-tubbing scenario, the tribunal appoints an assessor. As per Reynolds and Russell (2001), if parties engage in hot-tubbing pursuant to CPR Practice Direction 35, they may ask the court to appoint an assessor to preside over the discussions (between the parties' experts). Hence, in this scenario, the experts involved include the party-appointed expert witnesses and the assessor.

Figures 18 summarizes the scenarios of experts' involvement during Arbitration.

Phase 9- Arbitration		
		
Scenario	Additional Expertise	Appointed By
Scenario 1	-	-
Scenario 2	Expert Adviser(s)	(P1; P2; P1 and P2)
Scenario 3	Appraiser	Arbitration Tribunal
Scenario 4	Expert Adviser(s)	(P1; P2; P1 and P2)
	Appraiser	Arbitration Tribunal
Scenario 5	Tribunal-appointed Expert Witness	Arbitration Tribunal
Scenario 6	Expert Adviser(s)	(P1; P2; P1 and P2)
	Tribunal-appointed Expert Witness	Arbitration Tribunal
Scenario 7	Appraiser	Arbitration Tribunal
	Tribunal-appointed Expert Witness	Arbitration Tribunal
Scenario 8	Expert Adviser(s)	(P1; P2; P1 and P2)
	Appraiser	Arbitration Tribunal
	Tribunal-appointed Expert Witness	Arbitration Tribunal
Scenario 9	Party-appointed Expert Witness(s)	(P1; P2; P1 and P2)
Scenario 10	Appraiser	Arbitration Tribunal
	Party-appointed Expert Witnesses	P1 and P2
Scenario 11	Tribunal-appointed Expert Witness	Arbitration Tribunal
	Party-appointed Expert Witnesses	P1 and P2
Scenario 12	Party-appointed Expert Witnesses	P1 and P2
	Assessor	Arbitration Tribunal
Scenario 13	Appraiser	Arbitration Tribunal
	Tribunal-appointed Expert Witness	Arbitration Tribunal
	Party-appointed Expert Witnesses	P1 and P2
Scenario 14	Jointly-appointed Expert Witness	P1 and P2 Jointly
Scenario 15	Expert Adviser(s)	(P1; P2; P1 and P2)
	Jointly-appointed Expert Witness	P1 and P2 Jointly
Scenario 16 (hot-tubbing)	Party-appointed Expert Witnesses	P1 and P2
Scenario 17 (hot-tubbing)	Party-appointed Expert Witnesses	P1 and P2
	Assessor	Arbitration Tribunal

Figure 18 Summary of Scenarios of Phase 9. P1= Party 1 (Owner); P2= Party 2 (Contractor).

3.4 Mapping of Expert Roles onto the Construction Claim and Dispute Timeline

The types of additional expertise typically involved during the claim and dispute resolution process are extracted from figures 9, 13, and 18 above and tabulated below in Tables 1 and 2. Table 1 shows all types of additional expertise, possibly engaged during phase 1 to 8 of the claim and dispute resolution process (along with their appointing party). Table 2 shows the same but for the arbitration phase.

Table 1 Types of Additional Expertise Involved in Phases 1-8. P1= Party 1 (Owner); P2= Party 2 (Contractor).

Additional Expertise	**Appointed By**
Phase 1- Disclosure of Claim	
Expert Adviser/Consultant	Claiming Party (could be either P1 or P2)
Phase 2- Engineer's Consultation	
Expert Adviser(s)	(Engineer; P1; P2; P1 and P2; P1 and Engineer; P2 and Engineer; Engineer and P1 and P2)
Phase 3- Engineer's Determination	
Expert Adviser/Consultant	Engineer
Phase 4- Dissatisfaction	
Expert Adviser	Dissatisfied Party (could be either P1 or P2)
Phase 5- Referral	
Expert Adviser(s)	(Engineer; Dissatisfied Party; Other Party; Dissatified Party and Other Party; Dissatisfied Party and Engineer; Other Party and Engineer; Engineer and Dissatisfied Party and Other Party)
Phase 6- Adjudication	
Expert Adviser(s)	(P1; P2; P1 and P2)
DAB-appointed Expert Witness	DAB
Party-appointed Expert Witness(s)	(P1; P2; P1 and P2)
Assessor	DAB
Phase 7- Dissatisfaction	
Expert Adviser	Dissatisfied Party (could be either P1 or P2)
Phase 8- Amicable Settlement: Expert Determination	
Expert Adviser(s)/Consultant(s)	(Expert; P1; P2; P1 and P2; P1 and Expert; P2 and Expert; Expert and P1 and P2)

Table 2 Types of Additional Expertise Involved in Phase 9. P1= Party 1 (Owner); P2= Party 2 (Contractor).

Phase 9- Arbitration	
Additional Expertise	**Appointed By**
Expert Adviser(s)	(P1; P2; P1 and P2)
Appraiser	Arbitration Tribunal
Tribunal-appointed Expert Witness	Arbitration Tribunal
Party-appointed Expert Witness(s)	(P1; P2; P1 and P2)
Assessor	Arbitration Tribunal
Jointly-appointed Expert Witness	P1 and P2 Jointly

Finally, the different expert roles mentioned in Table 1 are mapped onto the claim and dispute timeline in figure 19 to graphically highlight the stations of the experts' involvement along the timeline.

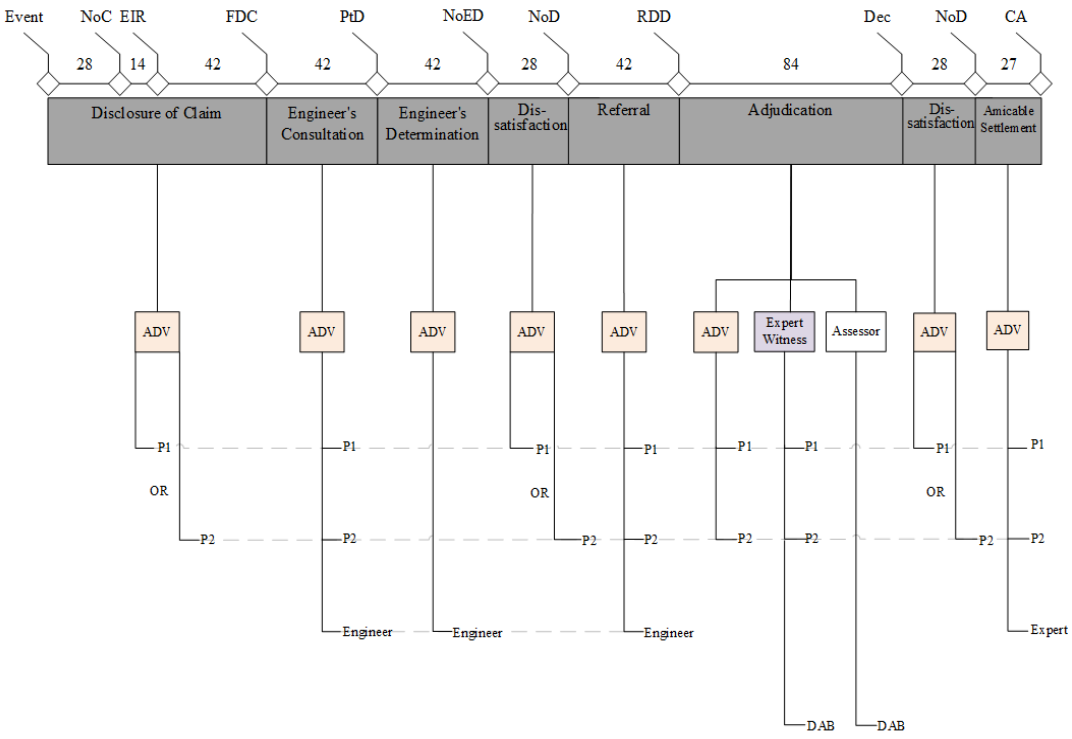


Figure 19 The Mapping of Expert Roles onto FIDIC's Claim and Dispute Timeline. P1= Party 1 (Owner); P2= Party 2 (Contractor); ADV= Expert Adviser.

3.5 Requirements of the Different Expert Roles

As shown in Tables 1 and 2, there are several types of experts that can be involved during the construction claim and dispute resolution process. Nevertheless, the requirements are not the same for all expert roles. In other words, the required level of impartiality varies with respect to the type of expert.

To start, the expert adviser, according to The Academy of Experts, if appointed by a party, has an overriding duty to the party instructing him. By that, the expert adviser, being the party's agent, is not expected to act impartially.

Conversely, the expert witness's impartiality can be considered to be an overriding principle of expert evidence [8] (Horne and Mullen 2013) (a failure to deliver evidence impartially is likely to be a source of challenge to the expert evidence). This can be deduced from the Ikarian Reefer[9] and the Anglo Group cases[10]. In the *Anglo Group plc v Winther Brown and Co Limited and BML (Office Computers) Limited* case, Judge Toulmin QC identified specific duties for an expert witness (close to those set out in the Ikarian Reefer) that includes: providing "independent assistance to the court and the parties by way of objective unbiased opinion in relation to matters within his expertise. This applies as much to the initial meetings of experts as to the evidence at trial" (Horne and Mullen 2013). According to the Judge, an expert witness "should

[8] Including a single joint expert, as he is agreed on by both parties and is generally appointed to provide an impartial opinion.

[9] A 1993 case that presents the duties and responsibilities of expert witnesses, which have been used by courts in other cases.

[10] The essential principles of the Ikarian Reefer were reconsidered by the Technology and Construction Court in the case of *Anglo Group plc v Winther Brown and Co Limited and BML (Office Computers) Limited.*

never assume the role of an advocate". However, it remains a concern in some jurisdictions that expert witnesses favor the instructing party's position (through their opinion) instead of delivering their opinions professionally and impartially.

As stated by Robert Horne and John Mullen, impartiality and independence, although distinct in meaning, are often tied to one another in practice, as it is unusual for an expert witness who is not independent from both parties to be appointed (as his appointment can raise questioning on evidence). Hence, expert witnesses, even if party-appointed, are expected to be impartial and independent.

Moving on to the requirements/duties of the assessor role. As previously mentioned, the role of the court/tribunal-appointed assessor could be simply advisory or could be similar to that of an expert witness. As mentioned in Peter Menell et al.'s book: "Patent Case Management Judicial Guide", even the court's technical advisor's bias and partiality can be challenged by the parties (Menell et al. 2009). Hence, the assessor must act impartially in all cases.

Finally, in order to study the appraiser's impartiality, the *Levine v. Wiss & Co.* case (detailed in a later section) can be analyzed. The appraiser in the case is selected by the litigants and appointed by the court to act as an "impartial expert" to begin with. Hence, the court-appointed appraiser, like the court-appointed assessor and witness, can, in the first place, be appointed to act impartially.

Regardless of the levels of independency and impartiality required by experts, the rendering of judgments/opinions for all experts shall be guided by governing principles of conduct like: objectivity, professionalism, due diligence, and standard of care (Barakat et al. 2018).

Yet, back to the matter of impartiality, if the expert, required to act impartially, fails to be impartial, the consequences could be severe. For example, the failure of the expert witness to comply with his duties can affect the weight of his evidence (reduce it or cause its rejection), which can weaken the position of the party who appointed the expert witness. Also, the expert witness might end up receiving a negative judicial comment and having his credibility undermined.

While such consequences may appear somehow strict, experts involved in the claim and dispute resolution process can be subject to other, more drastic, liabilities if they perform negligently. Some of these liabilities include having to pay damages/costs, being subject to disciplinary measures by their professional associations, and suffering harm to their professional reputation. Therefore, experts must not only avoid negligence, but must also be aware of the current boundary of immunity from negligence liability (as the status of immunity depends on the role played by the expert).

CHAPTER 4

STATUS OF IMMUNITY FROM NEGLIGENCE LIABILITY FOR THE DIFFERENT EXPERT ROLES

4.1 Preamble

This chapter addresses the topic of expert negligence and investigates the boundary of immunity from negligence liability. Through case law review and analogy, this chapter aims to clarify the status of immunity for the different types of experts involved in the construction claim and dispute resolution process.

4.2 Overview on Negligence of Experts

4.2.1 Definition of Negligence

Negligence takes place when the professional breaches the applicable standard of care. The Book of Approved Jury Instructions (BAJI), which is a standard jury instructions book in California, reads: "in performing professional services for a client, a professional has the duty to have that degree of learning and skill ordinarily possessed by reputable professionals, practicing in the same or similar locality and under similar circumstances. It is his or her further duty to use the care and skill ordinarily used in like cases by reputable members of his or her profession practicing in the same or similar locality under similar circumstances, and to use reasonable diligence and his or her best judgment in the exercise of professional skill and in the application of learning, in an effort to accomplish the purpose for which he or she was employed. **A failure to fulfill any such duty is negligence**" (Loring and Committee on Standard Jury Instructions, Civil 1986).

The standard of care can be considered to be the boundary between negligence and non-negligence (Kardon 2015). Although the standard of care can be determined from case law, or sometimes from State licensing laws or Codes of Ethics and Practice Guidelines issued by private professional organizations (Kardon and Gilligan 2015), it is not fixed.

4.2.2 Standard of Care

Standards of care are not written, but established contemporaneously (Bachner 1988). A contemporary definition of the standard of care is that it is the "level of skill and competence ordinarily and contemporaneously demonstrated by professionals of the same discipline practicing in the same locale and faced with the same or similar facts and circumstances" (Recommended 1991). Hence, for an engineer to be following the standard of care for example, his professional design engineering work must equal that of an average prudent design engineer in a similar locality (Day 1994). This applies to other professionals and experts, including forensic engineers, expert witnesses, etc.

According to Kardon, in order to determine if an expert breached the standard of care, the following questions must be answered: "Does the defendant have the degree of learning and skill ordinarily possessed by reputable professionals, practicing in the same or similar locality and under similar circumstances?," "Did the defendant use the care and skill ordinarily used in like cases by reputable members of his or her profession practicing in the same or similar locality under similar circumstances?," "Did the defendant use reasonable diligence?," "Did the defendant use his or her best judgment?," and "Did the defendant do all that in an effort to accomplish the purpose for which he or she was employed?" (Kardon 2018).

4.2.3 Proving Negligence of Experts

The sections above define experts' negligence and standard of care, but do not explain how negligence is proved. To prove negligence, the claimant must first establish that there was a duty owed by the expert to him, that this duty was breached, that there was damage, and that the breach of duty caused damage to the claimant. Failure to show any of the above means that there was no negligence on the part of the defendant professional (even though there might have been a non-negligent mistake on his part).

4.2.4 Negligence by Expert Witnesses

Specifically for expert witnesses, some of the general areas where they may face claims of professional negligence include: failing to accurately estimate damages, failing to perform an adequately extensive investigation, failing to persuade the trier of fact, and changing their opinion (Kardon 2018).

4.3 Background on Immunity from Negligence Liability

Professionals are subject to liability if they perform negligently. Yet, some of the experts involved in the construction claim and dispute resolution process argue that they are immune from any liability for professional negligence.

In fact, immunity is more striking for certain professions than others. For example, for over 100 years, judges in the United States have enjoyed an almost absolute immunity on judicial acts, except in slight circumstances where judges acted with a complete lack of jurisdiction (Rasmussen 2003). This immunity was maintained based on the claim that judges have to be protected from any threat or potential loss of independence and that judicial resources have to be conserved (Press and Lurie 2015).

On the other hand, the status of immunity is controversial for other experts involved in conflict or dispute resolution, like expert witnesses. Witnesses have traditionally received absolute immunity (from liability and damages) for **spoken and written** words throughout the judicial proceedings (Masterson, 1998). However, with time, the expert witness immunity has not gone unchallenged.

4.4 Status of Immunity of Expert Witnesses

4.4.1 Background Cases

For a long period of time, witness immunity has been followed, to different extents, in almost all US states (AlfordIII 2000). In *Bienvenu v. Angelle*[11], a case dating back to 1969, the Supreme Court of Louisiana stated that "communications made in judicial or quasi-judicial proceedings carry an absolute privilege," (Bienvenu v. Angelle 1969) but still held that communications connected with investigatory work were given only a qualified privilege.

Absolute witness immunity seemed most appropriate for experts who testified adversely at trial (Masterson 1998). In the *Clark v. Grigson* (1979) case, which took place ten years after *Bienvenu v. Angelle*, a convicted felon sued a psychiatrist, who acted as the **adverse expert witness** in the plaintiff's criminal trial, intending to recover damages resulting from the psychiatrist's negligent diagnosis. The plaintiff argued that the psychiatrist's negligence in the criminal trial resulted in heavier sentences than the ones that would have been received had the psychiatrist's testimony been accurate.

[11] *Bienvenu v. Angelle* is a defamation case, while the focus in this thesis is on negligence cases.

However, the court of appeals affirmed a summary judgment in favor of the psychiatrist due to absolute witness immunity.

Conversely, later in a Texas case, *James v. Brown* (1982), the Supreme Court of Texas disapproved of the court of appeals' decision in *Clark v. Grigson* for "it extended to **psychiatrists testifying** in mental health proceedings a blanket immunity from all civil liability" (James v. Brown 1982) . In the *James v. Brown* case, an elderly woman, sued three psychiatrists (who had examined her then reported to the court that she was mentally ill) claiming that the psychiatrists negligently misdiagnosed her and demanded damages for her involuntary hospitalization. Such a case was considered an exception at that time, because, against all the odds, the court allowed the negligence action against the psychiatrists to proceed. According to the court, "Mrs. James is not prevented from recovering from the doctors for negligent misdiagnosis-medical malpractice merely because their diagnoses were later communicated to a court in the due course of judicial proceedings" and "as a matter of law, Tex.Rev.Civ.Stat. Ann. arts. 5547-1 et seq. impose such a duty on psychiatrists examining patients entrusted to them under the Mental Health Code. Article 5547-18 excuses from liability only those who act in good faith, reasonably, and **without negligence".** Many explained the court's decision by the Texas statute that allows a cause of action for negligent performance of mental health examinations.

After *James v. Brown*, which was considered a mental health examination exception, the common law principles supporting witness immunity (mainly granted for testifying witnesses) remained to be greatly adopted, even for the witness providing perjured testimony (Hatcher 2017), primarily based on the claim that the testimony might get distorted due to the fear of subsequent liability. This was demonstrated in

Briscoe v. LaHue (1983), when the Supreme Court examined a damage claim against police officers **for giving perjured testimony** at the criminal trials of the petitioners. In the case, the petitioners argued that perjured testimony from a police officer **acting as fact witness** is likely to be more damaging than perjured testimony from an ordinary witness, and thus asked the court to make an exception to the general rule of witness immunity. Nevertheless, the court still afforded absolute immunity for the police officers' testimony, considering that witness immunity is not defined by the occupation of the witness and that "a police officer on the witness stand performs the same functions as any other witness; he is subject to compulsory process, takes an oath, responds to questions on direct examination and cross-examination, and may be prosecuted subsequently for perjury" (Briscoe v. LaHue 1983).

In *Bruce v. Byrne-Stevens & Associates Engineers, Inc.* (1989), the Washington Supreme Court expanded the boundary of immunity so that it protects in case of **negligence in providing expert testimony by a "friendly" expert witness** (the party's own expert witness). In the underlying suit, expert testimony, estimating the cost of restoring the plaintiff's injured land, was offered at trial. It was later discovered that the testimony provided an underestimation of the cost of restoration. As a result, the plaintiff, who argued that he had not received the complete cost of restoration from the original defendant due to the low estimate given by the expert witness, sued his **own expert witness** for negligent engineering. Yet, witness immunity eventually prevailed for the **friendly expert witness** and the Washington Supreme Court, though divided, stated that: "it is immaterial that an expert witness is retained by a party rather than appointed by the court. The basic policy of ensuring frank and objective testimony

obtains regardless of how the witness comes to the court" (Bruce v. Byrne-Stevens 1989).

What's worth mentioning in this case is the argument of the respondents and amicus: "the mere fact that Byrne testified on the basis of his engineering work should not insulate him from liability for negligence in the performance of that work… Bruce and Smallwood are suing for **negligent engineering, not for negligent testifying**". To that, the court replied that: "it simply is not the case that the defendants were sued for negligent engineering" and that "witness immunity must extend to the basis of the witness' testimony, or the policies underlying such immunity would be undermined... There is no way to distinguish the testimony from the acts and communications on which it is based" (Bruce v. Byrne-Stevens 1989). Hence the court's view was that the immunity of expert witnesses extends beyond their testimony.

Similar to the court's decision in *Bruce v. Byrne-Stevens & Associates Engineers, Inc.*, in the *Panitz v. Behrend* (1993) case, the decision of the court was in favor of the **friendly expert witness**. The court found "no reason for refusing to apply the privilege [the immunity] to friendly experts hired by a party" (Panitz v. Behrend 1993). It all started in this case when the friendly expert witness (Elaine B. Panitz) testified on direct examination, then later on cross-examination admitted that her testimony was inaccurate. The plaintiffs, who hired the expert, did not pay the expert her fee, alleging gross negligence from her side. The expert then filed a suit to recover her fee, but the law firm counterclaimed. Nevertheless, the trial court dismissed the counterclaim. Similarly, the appeals court affirmed the dismissal of the trial court: "an expert witness will not be subjected to civil liability because he or she, in the face of conflicting evidence or during rigorous cross-examination, is persuaded that some or all

of his or her opinion testimony has been inaccurate". Moreover, the appeals court stated that "the privilege is not to be avoided by the disingenuous argument that it was not the in-court testimony that caused the loss but the pre-trial representations about what the incourt testimony would be" (Panitz v. Behrend 1993).

In *Levine v. Wiss & Co* (1984), an accounting firm was hired in the Levines' divorce proceeding to value the husband's interest in Unified Components Corporation/Unicorp (Unicorp), and it was agreed by the parties that the valuation was to be binding. But after a pretrial settlement was reached, Mr. Levine subsequently sued Wiss & Co. and claimed that an unfavorable settlement was forced upon him due to the incorrect values furnished to the court by Wiss & Co. In response, Wiss & Co. argued that the role it played was a quasi-judicial role (as arbitrators, not experts), and therefore it was immune from actions for damages. The court, nonetheless, refused to shield experts performing limited accountancy duties (**not acting quasi-judicially**) from liability. The court stated that the "defendants were expected to apply their professional accountancy skills ... Consequently, the standards of reasonable care applied to lawyers, doctors, engineers, and other professionals charged with furnishing skilled services for compensation attach with equal force and justification to defendants here" (Levine v. Wiss & Co. 1984). Therefore, *Levine v. Wiss & Co.* can be viewed to have paved the way for action against experts (**although not expert witnesses**) who act as **appraisers** and or who perform **"limited functions**, as part of their regular professional responsibilities, in the context of judicial proceedings".

Clearly the reasoning of *Levine v. Wiss & Co.* was not applied for the **adverse expert witness** in *Kahn v. Burman* (1987). In the underlying case of *Kahn v. Burman*, Michael Johnson's attorney, before filing the state malpractice claim against Dr. Roger

Kahn, asked Dr. Sheldon Burman to evaluate whether there was malpractice on the part of Dr. Kahn and others. Based on Dr. Burman's reports (prepared for Attorney Gray) and deposition testimony in the state malpractice litigation, Dr. Kahn asserted five claims against Dr. Burman (**negligence**, fraudulent and innocent misrepresentation, defamation, and intentional infliction of emotional distress). The court, taking *Briscoe v. LaHue* (1983) as a reference, stated that with respect to Dr. Burman's deposition testimony, witness immunity clearly prevails. As for Dr. Burman's reports, the court held that the immunity for Dr. Burman's deposition testimony extends to his two advisory reports. Also, the court stated that even if Dr. Burman's reports were not subject to the witness immunity protection, summary judgment still would be appropriate because "Dr. Burman, as a consultant and potential witness and ultimately as an expert witness, owed no legal duty to Dr. Kahn, an adverse litigant" (Kahn v. Burman 1987) (which goes along with the court's decision in *Clark v. Grigson).* Hence, all claims against Dr. Burman were dismissed.

On the other hand, in *S.T.J. v. P.M* (1990), the immunity of court-appointed psychologists, aiding the court in making a final decision, was addressed. The suit against the **court-appointed expert witnesses** in *S.T.J. v. P.M* was dismissed, as the court stated: "appointed psychologists are non-judicial persons fulfilling quasi-judicial functions and are classified as officers of the court with functions intimately related to the judicial process. Hence, as in Meyers, supra, they are entitled to absolute immunity protecting them from having to litigate the manner in which they perform those functions". The court also mentioned that it finds "no merit to appellant's claim that further evaluation or investigation by them [as officers of the court], prior to that judgment, was unprotected by immunity" (S.T.J. v. P.M 1990). So, immunity in this

case prevailed for the **court-appointed expert witnesses** (whose duty is to fulfill "quasi-judicial functions").

Then again, 8 years after *Levine v. Wiss & Co.*, a theory of expert witness negligence prevailed in *Mattco Forge v. Arthur Young & Co.* (1992), a California case. In the underlying case, Mattco filed a federal civil rights action against General Electric (GE), for eliminating Mattco as an approved subcontractor. Mattco appointed Arthur Young, an accounting firm, as a damage consultant and expert witness to help in calculating profits lost to support its case against GE. The federal case ended in mutual dismissals before trial, but Mattco sued Arthur Young for: **professional negligence**, fraudulent misrepresentation, and fraudulent concealment, among other things. Arthur Young moved for summary judgment, and the trial court granted his motion due to the statutory litigation privilege. But then again, Mattco appealed and the summary judgment was reversed by the court of appeals, which did not approve extending the litigation privilege to a **friendly expert witness**. Thus, the litigation privilege was found to be not absolute.

Similarly, following Mattco (California), the Missouri Supreme Court in *Murphy v. A. A. Mathews* (1992) found that expert witness immunity does not exist in case of negligence of the professional providing pretrial litigation support services. In this Missouri case, Matthews (who was hired for preparing, documenting, evaluating, reporting, and presenting the claims for compensation from a subcontractor) testified at the arbitration proceeding in support of an additional compensation of almost $5 million. However, the arbitrators ended up awarding a much less compensation amount (around $1million). Matthews was then sued for negligence by the appellant, but the claim was dismissed based on witness immunity. That judgment was reversed by the

appeals court, mentioning that: “Mathews voluntarily agreed to provide these services and thereby also to assume the duty of care of a skillful professional in exchange for a $350,000 fee. American alleges that Mathews was negligent in providing these services and that damages resulted. We do not believe that witness immunity should bar such a suit” (Murphy v. A. A. Mathews 1992). Thus, in both Mattco and Murphy, the courts were willing to hold the **friendly expert witness** to a professional standard of care (on another note, the court in Murphy considered that hired experts are not objective by their nature and immunizing their testimony does not further what witness immunity is all about).

In the Pennsylvania case of *LLMD of Michigan, Inc. v. Jackson-Cross Company* (1999), the plaintiff hired an expert witness, Charles Seymour, chairman of Jackson-Cross, to perform calculations and designate the lost profit resulting from the failure of the lenders to close under the mortgage commitments it had made. During cross-examination, the defense found an error in the calculations of lost profit. As a result, the expert’s testimony was disregarded and the case was settled for around $750,000. At that point, LLMD sued Jackson-Cross for professional malpractice. First, the trial court decided in favor of Jackson-Cross, but then the Pennsylvania Supreme Court reversed, considering that the witness immunity doctrine did not bar such an action against Jackson-Cross. This was explained as follows: “the goal [goal of witness immunity] of ensuring that the path to truth is unobstructed and the judicial process is protected, by fostering an atmosphere where the expert witness will be forthright and candid in stating his or her opinion, is not advanced by immunizing an **expert witness** from his or her negligence in formulating that opinion. The judicial process will be enhanced only by requiring that an expert witness render services to the degree of care,

skill and proficiency commonly exercised by the ordinarily skillful, careful and prudent members of their profession" (LLMD of Michigan, Inc. v. Jackson-Cross Company 1999).

Likewise, the court in *Pollock v. Panjabi* (2000) established that the LLMD argument was appropriate, relevant, and closely analogous. In *Pollock v. Panjabi*, Dr. Panjabi, an expert in spinal biomechanics, designed and performed laboratory tests, intended to show whether Mr. Green's debilitating spinal injury was a result of the policeman's arrest (due to a restraint hold), and provided testimony. Nevertheless, Dr. Panjabi's testimony was not admissible at trial, as it was determined that it was not based on valid and reliable testing methods. Accordingly, Mr. Green's injuries were not attributed to the arrest and costs against Green were awarded. Consequently, a suit was filed against Panjabi (**the friendly expert witness**) for professional negligence (for failing to provide competent litigation support services). In his turn, Panjabi filed a motion to strike, but the court recognized that witness immunity did not apply in this case.

Another case demonstrating the erosion of immunity for **friendly expert witnesses** is the Massachusetts case of *Boyes-Bogie v. Horvitz* (2001). Karen Boyes-Bogie's attorney engaged Joel Horvitz in a divorce action, to value a business fully owned by Boyes-Bogie's husband. Horvitz valued the firm at less than $3 million and an agreement to settle was made based upon this value. Later, the accountants for Boyes-Bogie's husband valued the firm at $8.5 million, a much greater value than that of Horvitz. Yet, similar to *Pollock v. Panjabi*, the doctrine of witness immunity did not bar a claim against Horvitz, the expert privately retained to provide litigation support services.

Moreover, recently in 2014, in another **friendly expert witness case**: *Ellison v. Campbell*, the Oklahoma Supreme Court held a $408,000 verdict against Michael D. Campbell, an expert hydrogeologist, for breach of contract. The court stated that "Campbell's own admissions were sufficient to infer negligence. Furthermore, there was additional, supporting testimony indicating that Campbell did not present an accurate document which could be empirically supported or shown to comply with governmental standards. The testimony presented was most certainly such that a lay person, through common knowledge or experience, could determine that Campbell did not produce the very thing for which the Ellisons' contracted... Finally, Campbell's contradictory statements made at the time of his deposition and at trial were sufficient that a reasonable juror might well question his veracity" (Ellison v. Campbell 2014).

Finally, the immunity of witnesses in **criminal matters** has not gone unchallenged as well (Hill 2015). In *Paine v. City of Lompoc* (2001) (**although not a negligence case**), the doctrine of witness immunity was also not applied and did not shield the police officers, as they conspired to suppress statements of other witnesses at trial. Recently, in *Lisker v. City of Los Angeles* (March 2015), the U.S. Ninth Circuit Court of Appeals affirmed the denial of the witness immunity shield for the police officers' pre-trial activities. These two cases show that witness immunity does not shield non-testimonial, out-of-court conduct that are not inextricably tied to testimony.

By considering the above case studies, the trend of erosion of absolute immunity for experts, mainly expert witnesses, becomes clear.

4.4.2 Summary of Cases Involving Negligence of Expert Witnesses

Eleven out of the seventeen case studies above need to be closely studied in order to determine the status of immunity from negligence liability of expert witnesses. These eleven cases are negligence cases involving expert witnesses. A summary of these cases is provided below in Table 3 (*James v. Brown* is not included, as it is considered an exception). For each case, Table 3 shows:

- The case name;
- The case number;
- The case date;
- The type of expert witness who is sued (adverse expert witness, friendly expert witness, or court-appointed expert witness);
- The expertise needed from the expert witness;
- The occupation of the expert witness;
- The basis of negligence suit/claim against the expert witness (for example, in Kahn v. Burman, Dr. Kahn asserted his claims against Dr. Burman based exclusively upon Dr. Burman's reports and deposition testimony);
- The entity against whom the negligence suit/claim was against; and
- The outcome of the negligence suit/claim (whether immunity prevailed or did not prevail for the expert witness).

Table 3 Summary of Cases Involving Negligence of Expert Witnesses

Case Name	Case No.	Year	Type of Expert Witness	Area of Expertise Needed from Expert Witness	Occupation of the Expert Witness	Basis of Suit against the Expert Witness	Who was the Suit against	Outcome
Clark v. Grigson	1	1979	adverse	evaluation in connection with a possible defense of insanity	psychiatrist	testimony	expert witness	immunity prevailed
Kahn v. Burman	2	1987	adverse	evaluation of the presence or absence of medical malpractice	doctor	reports and deposition testimony	expert witness	immunity prevailed
Bruce v. Byrne-Stevens & Assocs. Engineers, Inc	3	1989	friendly	estimation of cost of stabilizing the soil after excavation work on the neighbor's property	engineer	preparing analysis and testimony	expert witness and the firm which he's the principal of	immunity prevailed
S.T.J. v. P.M.	4	1990	court-appointed	mental health evaluations	psychologists	investigations + recommendations + evaluations	expert witnesses and the stepfather	immunity prevailed
Mattco Forge, Inc. v. Arthur Young & Co.	5	1992	friendly	calculation of lost profits (due to elimination of an approved subcontractor)	accountant	assisting in litigation (litigation support accounting work)	accounting firm: Arthur young & co. (Arthur Young was the expert witness)	immunity did not prevail

Murphy v. AA Mathews	6	1992	friendly	claiming for additional compensation	engineers	litigation support services (preparation, documentation, evaluation, and reporting)	experts	immunity did not prevail
Panitz v. Behrend	7	1993	friendly	testimony on formaldehyde sensitization reactions	doctor	the substance of Panitz's testimony at trial	expert witness	immunity prevailed
LLMD of Michigan Inc. v. Jackson-Cross Co.	8	1999	friendly	determining lost profits as a result of the defendants' breach of their financing commitment for the industrial rehabilitation project	expert in the field of real estate counselling and computation of lost profits	formulating opinion (counselling , computation/calculation of lost profits)	company whose chairman is the expert witness	immunity did not prevail
Pollock v. Panjabi	9	2000	friendly	demonstrating excessive force during an arrest	spinal biomechanics expert	litigation support services	expert witness (who is a professor at Yale University), another professor at Yale, and Yale	immunity did not prevail
Boyes-Bogie v. Horvitz	10	2001	friendly	the valuation of stock and ownership interests for a divorce action	business valuations expert	litigation support services	expert witness	immunity did not prevail
Ellison v. Campbell	11	2014	friendly	provide opinion on cause of pollution of the groundwater on a property	expert hydrogeologist	litigation support services [including report]	expert witness and the company he works in	immunity did not prevail

The close examination of Table 3 and scrutiny of case reasoning helps in answering the following questions:

1. For what type of expert witnesses (adverse, friendly, or court-appointed) does immunity prevail?
2. Does the immunity of an expert witness, which shields him from negligence suits, extend to cover all types of actions/submissions he makes?
3. Does the status of immunity of an expert witness depend on his occupation or expertise?
4. Will the negligence suit be raised against the expert witness alone?

4.4.3 Important Conclusions on the Status of Immunity of Expert Witnesses

After scrutinizing the reasoning of the different cases (involving negligence of expert witnesses), important conclusions were made. Table 4 below shows the deduced conclusions (A to F), along with the statements that support them from cases (for example, the table displays the statements that support conclusion A from cases 1, 2, 3, 4, 7, and 9).

= rejected by later cases

Table 4 Conclusions from Cases Involving Negligence of Expert Witnesses

Conclusion	**Case Reasoning Supporting the Conclusion**	
	Case Number	**Statement in Case**
A (GENERAL RULE FOR WITNESSES): Witnesses enjoy immunity from liability based on their testimony	1	"We hold that the psychiatrist is immune from civil liability based on his **testimony** in the criminal case".
	2	"With respect to Dr. Burman's **deposition testimony** in the state malpractice litigation, witness immunity clearly supplies Dr. Burman with absolute protection against civil liability".
	4	"With respect to **testimony** in judicial proceedings, the immunity of parties and witnesses from subsequent liability was well established in English common law".
	3	"As a general rule, witnesses in judicial proceedings are absolutely immune from suit based on their **testimony**".
	7	"Having testified truthfully in the judicial process, a witness should not thereafter be subjected to civil liability for the **testimony** which he or she has given".
	9	"The common law absolute privilege itself is not confined to the **testimony** of a witness but extends to …"
B: Court-appointed expert witnesses acting as officers of the court and fulfilling quasi-judicial functions are entitled to absolute immunity	4 court-appointed expert witness case	"Clearly then, appointed psychologists are non-judicial persons fulfilling **quasi-judicial functions and are classified as officers of the court** with functions intimately related to the judicial process. Hence, as in *Meyers, supra*, they are entitled to absolute immunity protecting them from having to litigate the manner in which they perform **those** functions".

C: Expert witnesses are immune from suit by an adverse party	adverse expert witness cases	1	"The policy underlying the immunity is strong enough to apply in cases of deliberate perjury, it applies with even greater force to cases in which the **adverse testimony** is the result of an expert's negligence in formulating his opinion".
		2	"Dr. Burman, as a consultant and potential witness and ultimately as an expert witness, owed no legal duty to Dr. Kahn, **an adverse litigant**... Thus, the Court is compelled to grant defendant's motion to dismiss Dr. Kahn's negligence claim based on the absence of a legal duty".
	friendly expert witness case	10	"Courts have consistently held that the witness immunity doctrine protects an expert witness from suit by an **adverse party**".
D: Expert Witness Immunity, if applicable, extends beyond the witness's testimony	adverse expert witness cases	1	"**Any communication** made in the course of a judicial proceeding is absolutely privileged and immune from civil liability for damages… This rule applies to the opinions of expert witnesses as well as to any other testimony in a judicial proceeding…"
		2	"Witness immunity encompasses **experts' reports prepared either before or during litigation**. Although Dr. Burman's reports are not statements that were made **under oath** in the course of litigation, they may well satisfy the witness immunity prerequisite of 'relevancy to the judicial proceedings' ". "The immunity extended to Dr. Burman for statements and opinions that he offered in his deposition testimony must apply equally to the statements of opinion contained in his **two advisory reports**..."
	court-appointed expert witness case	4	"Defendants remained **officers of the court** until rendition of the final judgment. Hence, we find no merit to appellant's claim that further **evaluation or investigation by them, prior to that judgment**, was unprotected by immunity".

	friendly expert witness cases	3	"In sum, the immunity of expert witnesses extends not only to their testimony, but also to **acts and communications** which occur in connection with the preparation of that testimony". "Witness immunity must extend to the **basis of the witness' testimony**, or the policies underlying such immunity would be undermined. An expert's courtroom testimony is the last act in a long, complex process of evaluation and consultation with the litigant. There is no way to distinguish the testimony from the acts and communications on which it is based".
		7	"'The privilege is not to be avoided by the disingenuous argument that it was not the in-court testimony that caused the loss but the pre-trial representations about what the incourt testimony would be. The privilege includes all **communication**s 'issued in the regular course of judicial proceedings and which are pertinent and material to the redress or relief sought.' Post v. Mendel, supra, 510 Pa. at 221, 507 A.2d at 355". "The 'expert's courtroom testimony is the last act in a long, complex process of evaluation and consultation with the litigant. There is no way to distinguish the testimony from the **acts and communications** on which it is based.' Bruce v. Byrne-Stevens & Associates Engineers, Inc., 113 Wash. 2d 123, 135, 776 P.2d 666, 672 (1989)".
E: The friendly expert witness has a professional duty to the party appointing them	friendly expert witness cases	6	"Mathews agreed to provide its expert services to American to assist it in the preparation of its claims. Mathews voluntarily agreed to provide these services and thereby also to assume the duty of care of a skillful professional in exchange for a $350,000 fee".
		8	"The judicial process will be enhanced only by requiring that an expert witness render services to the degree of care, skill and proficiency commonly exercised by the ordinarily skillful, careful and prudent members of their profession".

		9	"'Experts retained by one party voluntarily assume a professional duty to their client in exchange for direct monetary remuneration…' Murphy v. A.A. Mathews, supra, at 680-81".
		11	"He contracted with the Ellisons to prepare such a document and be available to support it with his testimony. Instead, he produced a report which was admittedly error-riddled and based upon methodologies not meeting either state or federal regulations. Simply, Campbell did not perform the services for which the Ellisons contracted and paid".
F: Friendly expert witness may be held liable due to negligence in performing services related to litigation (assisting, supporting, assisting in claim, …)	friendly expert witness cases	5	"Mattco's suit never reached trial, and did not involve the expert's testimony valuing of damages". "Applying the privilege to bar plaintiffs' suit **against an expert witness hired to assist them in litigation**, under the circumstances alleged, does not further the policies underlying section 47, subdivision (2) [the litigation privilege]".
		6	"Murphy's claim is limited to litigation support services, not testimony". "While witness immunity might properly be expanded in other circumstances, we do not believe that immunity was meant to or should apply to bar a suit against a **privately retained professional who negligently provides litigation support services**. We hold that American's claim against Mathews for negligent pretrial litigation support services is not barred by witness immunity".
		8	"We are unpersuaded, however, that those policy concerns [of the doctrine of witness immunity] are furthered by extending the witness immunity doctrine to professional negligence actions which are brought against an expert witness when the **allegations of negligence are not premised on the substance of the expert's opinion**…

			JacksonCross had been negligent in performing the **mathematical calculations** required to determine lost profits". "We granted Wintoll's petition for allowance of appeal to address the issue of whether the doctrine of witness immunity extends to bar professional malpractice actions against professionals hired to perform **services related to litigation**".
		9	"The issue before the court on the defendants' motion to strike is one of first impression in Connecticut: Does witness immunity bar a claim brought by an attorney or his client against an expert witness for failing to provide **competent litigation support services**? Under the facts alleged in the complaint, the court answers this question in the negative". "**The plaintiffs do not complain about what Panjabi said or about anything Cholewicki, who never testified, said or communicated. Rather, the plaintiffs complain of the defendants' failure to perform work, as agreed upon**, according to scientific principles as to which there are no competing schools of thought". "The policy on which witness immunity in Connecticut is based-having witnesses speak freely-is not implicated by the allegations of the complaint, which **seek to hold the defendants accountable for not doing what they agreed to do**".
		10	"The doctrine of witness immunity does not bar a claim for negligence against an expert **privately retained to provide litigation support services** by the party who retained the expert in circumstances of this case".

		11	“Party seeks compensation for an expert witness's failure to provide **competent litigation support services** in an underlying suit”. “In July of the same year, they filed their petition in Oklahoma County in the instant cause alleging **negligence**, tortious breach of contract, and breach of contract for the expert witness's failure to provide them with a scientifically supportable product which could be utilized in the Canadian County suit”. “Simply, Campbell did not perform the services for which the Ellisons contracted and paid”.

Conclusion A in Table 4 provides a general rule for witnesses (both fact and expert witnesses): "witnesses enjoy immunity from liability based on their testimony". However, it does not answer any of the posed questions. The answers to the questions are provided in the sections below.

4.4.3.1 Status of Immunity of the Different Types of Expert Witnesses Involved in Litigation/Arbitration

This section answers the following question: "for what type of expert witnesses (adverse expert witness, friendly expert witness, and court-appointed expert witness) does immunity prevail?"

4.4.3.1.1 Status of Immunity of Court-appointed Expert Witnesses

According to **Conclusion B** in Table 4, court-appointed (or tribunal-appointed) expert witnesses, acting as officers of the court and fulfilling quasi-judicial functions, are protected by absolute immunity "from having to litigate the manner in which they perform those functions" [12] (S.T.J. v. P.M. 1990). Hence, the immunity of a court-appointed expert witness covers not only the expert witness's testimony, but also the quasi-judicial functions performed by the court-appointed expert witness.

Conclusion B is confirmed in *Levine v. Wiss and Co,* where it was mentioned that "since they [the appraisers] bore little, if any, resemblance to judicial officers, the

[12] An exception to the absolute immunity of court-appointed expert witnesses is the James v. Brown case. In the case, Mrs. James was "not prevented from recovering from the doctors for negligent misdiagnosis-medical malpractice merely because their diagnoses were later communicated to a court in the due course of judicial proceedings". This case was considered an exception because it is limited to negligent performance related to mental health examinations.

very rationale that would warrant a grant of immunity is absent," which implies that immunity is in fact granted to judicial officers.

4.4.3.1.2 Status of Immunity of Adverse Expert Witnesses

Adverse expert witnesses are immune from liability based on their testimony. This is confirmed by Leslie R. Masterson: "witness immunity seems particularly appropriate in cases where a party to the suit sues an expert who testified adversely at trial" (Masterson 1998).

Put in another way by **Conclusion C** in Table 4, expert witnesses are immune from suit by an adverse party. This, according to case 2 (*Kahn v. Burman*), is due to the fact that the **party-appointed expert witness "owes no legal duty" to the adverse litigant**.

4.4.3.1.3 Status of Immunity of Friendly Expert Witnesses

Bruce v. Byrne-Stevens & Associates Eng. (case 3) had no precedent for applying the immunity as a protection for a friendly expert witness. The court in this case stated that "the mere fact that the expert is retained and compensated by a party does not change the fact that, as a witness, he is a participant in a judicial proceeding. It is that status on which immunity rests". The court also held that the immunity of a friendly expert witness extended not only to his testimony, but also to the acts and communications which occurred in connection with the testimony preparation. Afterwards, *Panitz v. Behrend* (case 7) followed the court's view in *Bruce v. Byrne-Stevens & Associates Eng*. Yet, later cases (5, 6, 8,9,10, and 11) declined to follow

Bruce v. Byrne-Stevens & Associates Eng. **This is why, in Table 4 above, cases 3 and 7 are highlighted as "rejected by later cases".**

The courts in cases 5, 6, 8, 10, and 11 have recognized a cause of action in negligence against friendly expert witnesses who provide services related to litigation (assisting, supporting, assisting in claim, etc.). By that, a loss of immunity for friendly expert witnesses (who owe professional duties to the parties appointing them) can be deduced. This is confirmed by **Conclusions E and F** in Table 4 (and their supporting case statements).

4.4.3.2 Extent of the Expert Witness Immunity

Now does the immunity granted to the expert witness, whether adverse or court/tribunal-appointed, extend to cover all types of actions and submissions the expert makes? Yes, the immunity of adverse and court/tribunal-appointed expert witnesses extends beyond the expert witness's testimony. This is established under **Conclusion D**. As shown in Table 4 above, the immunity of the court-appointed and adverse expert witnesses might extend to cover:

- Any communication made in the course of a judicial proceeding;
- Expert reports prepared before or during litigation;
- Statements not made under oath; and
- Evaluations or investigations made prior to judgment.

4.4.3.3 The Immunity and Occupation of an Expert Witness

The answer to the third question: "does the status of immunity of an expert witness depend on his occupation or expertise?" can be inferred from Table 3. As

shown in Table 3, there are several cases where the expert witness immunity prevailed. However, the expert witnesses in these cases do not have the same type of expertise or occupation (as apparent in columns 5 and 6 of the table). Thus, it can be easily concluded that the status of immunity of an expert witness does not depend on his occupation or type of expertise. The status of immunity of the clinical psychologist in *Jones v. Kaney*[13] for example, can "apply to all sorts of experts" (Dyer 2011) and is not restricted to psychologists.

4.4.3.4 Defendants in Negligence Cases

Finally, will the negligence suit be raised against the expert witness alone? Cases 3, 8, 9, and 11 shown in Table 3 must be closely examined in order to answer this question.

- In case 3, "Bruce and Smallwood sued **Byrne-Stevens and Byrne** [the principal of the retained firm who testified at the trial] alleging that the cost of restoring lateral support later proved to be double the amount of Byrne's estimate at trial. They contend that Byrne was negligent in preparing his analysis and testimony". Hence, in this case, not only the expert witness (who negligently prepared the analysis and gave a testimony) was sued, but also the firm to which he belongs.
- On another hand, in case 8, no suit was raised against the expert witness (Charles Seymour, chairman of Jackson-Cross), who gave the testimony and opinion, or against David Anderson, the employee of Jackson-Cross who prepared the erroneous calculation. The civil action was filed against Jackson-Cross only.

[13] A case discussed in detail in a later section.

- In case 9, "Pollock and Green subsequently filed the present lawsuit against **Panjabi, Cholewicki** [a professor at Yale who never testified**] and Yale**, claiming that the plaintiffs were damaged because of the manner in which Panjabi and Cholewicki rendered their services. ... The second count [of Pollock and Green's their revised complaint] alleges that the negligence of Panjabi and Cholewicki caused damages to Green and Pollock… The second and third counts also allege that Yale is vicariously liable based on the doctrine of respondeat superior[14]". Hence, in this case, even the University, whose personnel, laboratory, and equipment were used by the expert witness, was affected by the negligence lawsuit.
- In case 11, "the plaintiffs/appellees… sued the defendants/appellants, **Michael D. Campbell and M.D. Campbell & Associates, L.P.** (collectively, Campbell/expert witness), for breach of contract in Oklahoma County District Court". Hence, in this case, not only Campbell, the expert hydrogeologist, was sued but also the company he works in.

Thus, in case of negligence, entities other than the expert witness might be subject to the negligence suit, including: the firm to which the expert witness belongs, the University whose laboratory or equipment was used by the expert witness, the expert witness clearinghouse, etc.

4.4.3.5 Additional Conclusions from Other Expert Witness Cases

In addition to the eleven cases analyzed in the previous sections, two other cases offer important conclusions:

[14] Respondeat superior is "the doctrine making an employer or principal liable for the wrong of an employee or agent if it was committed within the scope of employment or agency" (Merriam-Webster).

The first case is *Donald C. Austin v. American Association of Neurological Surgeons* (2001). In this case, the expert witness, who is a surgeon, appealed his six-month suspension by the American Association of Neurological Surgeons (AANS), after a malpractice case that was brought against him, and argued that "the threat of such sanctions is a deterrent to the giving of expert evidence". Nevertheless, the appellate court disagreed, finding that such sanctions rather further the cause of justice In conclusion, this case shows that the blanket of immunity does not protect an expert witness from being disciplined by the professional association he belongs to.

The second case is *Forensis Group Inc v. Frantz Townsend Foldenauer* (2005). In the underlying case, the plaintiffs, whose husband and father died due to a workplace accident, hired the law firm Frantz Townsend & Foldenauer for their claim against the forklift manufacturer. The law firm engaged a professional engineer as an expert witness on the claim, through an expert witness clearing house (Forensis Group Inc.). However, there was a contradiction between the expert witness's deposition and the declaration that he made when the manufacturer moved for summary judgment, and the summary judgment motion was lost. As a result, the plaintiffs sued the witness engineer and expert witness clearing house (Forensis Group Inc.) for **professional negligence**, misrepresentation, and breach of fiduciary duty. However, they did not sue the law firm. As a result, the expert witness cross-claimed against the law firm for equitable indemnity (to apportion the loss incurred). This case proves that the expert witness is not barred from seeking indemnity against the law firm/attorneys that hired him.

4.4.4 Expert Witness versus Fact Witness

To end, an expert witness should be differentiated from a fact witness, in that "the former will have chosen to provide his services and will voluntarily have undertaken duties to his client for reward under contract whereas the latter will have no such motive for giving evidence… there is a marked difference between holding the **expert witness** immune from liability for breach of the duty that he has undertaken to the claimant and granting immunity to a **witness of fact** from liability against a claim **for defamation, or some other tortious claim**, where the witness may not have volunteered to give evidence and where he owes no duty to the claimant" (Jones v Kaney 2011).

Therefore, witness immunity against negligence liability can be studied for expert witnesses only. As for fact witnesses, immunity against other claims can be studied (defamation, perjury, etc.). Nevertheless, witness immunity against these types of claims is not the focus of this thesis.

4.5 Status of Immunity of Other Experts Involved in the Construction Claim and Dispute Resolution Process

Now that the status of immunity of expert witnesses involved during litigation (or arbitration) is clarified, the immunity of other experts will be addressed:

4.5.1 Immunity of Other Experts Involved During Arbitration

4.5.1.1 Status of Immunity of an Appraiser

According to *Levine v. Wiss & Co.,* a case previously explained in section 4.4.1, the appraiser may be held liable for failure to commit to the standards of the profession. This is in full accord with the decision of *Gammel v. Ernst & Ernst*, where it was held that the valuer, employed for auditing a corporation, could be sued for negligence. Like in *Levine v. Wiss and Co.,* the court in *Gammel v. Ernst & Ernst* rejected the claim that the valuer/appraiser acted as an arbitrator (for giving a binding valuation).

Besides, the appraiser owes a duty to the parties who agree to be bound by his binding valuation, as his duty is not only owed to those with whom he is in privity, but also to those intended to be the recipients of his representations, as well as those who might rely on his representations (Levine v. Wiss & Co. 1984). Therefore, the appraiser is not immune or protected from actions brought by the parties against him.

4.5.1.2 Status of Immunity of an Assessor

The book titled: "The Expert Witness in Construction", mentioned that "the assessor is just that- an **advisor** only. That advice does not have to be followed, but if it is then it should only be after the parties have had a chance to comment upon it" (Horne and Mullen 2013).

On the other hand, the book also mentioned that "in many ways the function of an assessor is the same as that of an expert, particularly a **tribunal-appointed expert** [expert witness]. That function is to provide the tribunal with independent technical advice. However, a distinction in the role of an assessor is that he will not usually

provide a written report, give oral evidence or answer questions direct from the parties at a hearing. The assessor's role is to advise the tribunal, including sitting with the tribunal during the proceedings to provide advice and comment on technical aspects of the cases and evidence being presented by the parties" (Horne and Mullen 2013). In some cases, he may even be directed by the court to prepare a report and attend part or all of the trial to advise the court.

Based on the above, one can pose a question: will the status of immunity (in negligence) of the assessor be similar to that of a court/tribunal-appointed expert witness? In a discussion paper of the federal courts rules committee on expert witnesses (in Canada), it was mentioned that "assessors and court appointed experts assist the Court directly... Although assessors do not testify at the trial, where an assessor's view of the evidence could influence the outcome of the trial, it is likely that his or her view would be put to counsel for comment. Given **the similarity between assessors and court appointed experts**, it seems unlikely that new provisions for court appointed experts should be introduced into the Federal Courts Rules, instead, where appropriate, greater use should be made of the existing rules for Assessors" (Federal Court of Appeal 2008). This discussion paper points out that the similarity between an assessor and a court-appointed expert is greatest when:

- The court/tribunal chooses to follow the assessor's advice and the latter's advice ends up influencing the outcome of the trial; and
- The assessor's advice/view is put for comments.

It might be appropriate in the above case, where the functions of an assessor and a court/tribunal-appointed expert witness are very similar, to compare the assessor's immunity (against negligence liability) to the court or tribunal-appointed expert

witness's immunity. By analogy, the assessor (whether involved in adjudication or arbitration), having similar functions to a court-appointed expert witness, will be protected by the same type of immunity that protects a court/tribunal-appointed expert witness.

4.5.1.3 Status of Immunity of an Expert Adviser

Reynolds et al. mentioned that the expert witness's duty in negligence "is the same as any other professional adviser save that an expert will have certain additional functions and responsibilities," (Reynolds and Russell 2001). This statement suggests that both the friendly expert witness and the expert adviser carry a **duty in negligence for the party appointing them**. Therefore, the expert adviser, who can be engaged at any phase of the construction claim and dispute resolution process, enjoys no immunity against negligence liability. This is confirmed by Dr Chris Pamplin, the Editor of the UK Register of Expert Witnesses, who stated that: "expert advisors have never had the protection of witness immunity" (Pamplin 2014).

4.5.1.4 Status of Immunity of Hot-Tubbing's Expert Witnesses

In order to determine the status of immunity of the expert witnesses involved in hot-tubbing, and since no literature review was found regarding the immunity of those expert witnesses in specific, an analogy must be made between the hot-tubbing scenario and one of the following scenarios: the scenario involving party-appointed expert witnesses (illustrated in figures 20), the scenario involving a jointly-appointed expert witness (illustrated in figure 21), or the scenario involving a tribunal-appointed expert

witness (illustrated in figure 22). This analogy would help out in determining the status of immunity of the expert-witnesses involved in hot-tubbing.

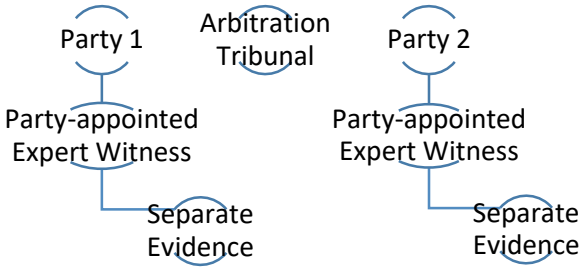


Figure 20 Scenario Involving Party-appointed Expert Witnesses

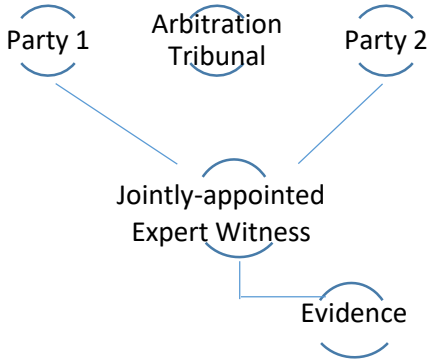


Figure 21 Scenario Involving Jointly-appointed Expert Witness

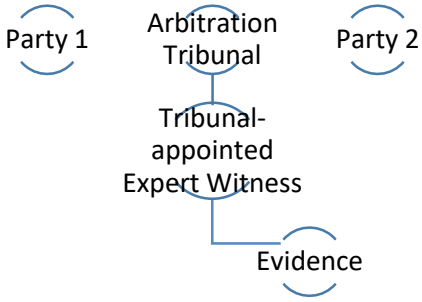


Figure 22 Scenario Involving Tribunal-appointed Expert Witness

While exploring cases involving party-appointed, jointly-appointed, and tribunal-appointed expert witnesses, *Jones v. Kaney*, a landmark case in the United Kingdom involving party-appointed expert witnesses, comes across.

In the underlying case of *Jones v. Kaney* (2011), a road traffic accident between a driver and a stationary motorcyclist (Jones) took place. The motorcyclist suffered from physical injuries and psychiatric consequences, and therefore issued a claim against the driver. Both parties (the driver and the motorcyclist) hired expert witnesses, who initially delivered **different opinions/reports**. In her report, Jones's expert witness (Kaney), a consultant clinical psychologist, first stated that Jones was suffering from Posttraumatic Stress Disorder (PTSD) due to the accident. However, later when the district judge ordered the expert witnesses to come to a **joint statement**, Kaney agreed (in the joint statement) with the opposing party's expert witness that Jones had been "deceitful" (Hughes 2011), thus abandoning her original opinion. Later on, Kaney admitted that she felt "under pressure" to agree to the joint statement. Nevertheless, since Jones was obliged to settle his damage claim for a significantly less amount than expected, he brought a negligence claim against Kaney. The claim was first dismissed by the High Court due to expert witness immunity, but then "leapfrogged" [15] the Court of Appeal to the Supreme Court. The Supreme Court, by a majority of 5 to 2, found that Kaney did not have an immunity against civil liability and considered that an expert witness should "perform his function as an expert with the reasonable skill and care".

[15] A leapfrog appeal is a legal appeal that misses out the Court of Appeal and directly goes from the High Court to the Supreme Court.

The particulars of the above case, which involves party-appointed expert witnesses, resemble to a certain extent the particulars of the hot-tubbing scenario, especially when it comes to:

- Experts initially delivering different opinions; and
- Experts coming to a joint statement.

Accordingly, the scenario involving party-appointed expert witnesses can be considered to be the closest to the hot-tubbing scenario. Consequently, by analogy, the party-appointed expert witnesses involved in hot-tubbing, like the party-appointed expert witness in *Jones v. Kaney*, **won't enjoy immunity against negligence claims brought by the party appointing them**.

4.5.1.5 Status of Immunity of a Single Joint Expert

In *Jones v. Kaney*, one of the greatest concerns of the dissent (Lord Hope and Lady Hale) concerning the decision was having unanswered questions regarding the immunity of the single joint expert. The dissent mentioned that "a jointly instructed expert owes contractual duties to each of the parties who instruct her ... Because such an expert is extremely likely to disappoint one of those instructing her, she may be more vulnerable to such actions [proceedings against her] than is the expert instructed by one party alone". Hence, it was suggested by the dissent that a single joint expert (jointly-appointed expert witness) **might be susceptible to negligence claims from either party instructing him**. Consequently, a jointly-appointed expert witness cannot be considered immune in case of negligence.

4.5.2 Immunity of Experts Involved During Adjudication

4.5.2.1 Status of Immunity of a DAB-appointed Expert Witness

The immune court-appointed expert witnesses in *S.T.J. v. P.M.* were "appointed to assist the court in the adjudication of a case through his special skill and knowledge…" and were "non-judicial persons fulfilling quasi-judicial functions and are classified as officers of the court with functions intimately related to the judicial process" (S.T.J. v. P.M. 1990). By analogy, the DAB-appointed expert witnesses, who perform similar types of functions (but in adjudication), should in principal be entitled to the same type of immunity enjoyed by the court or tribunal-appointed expert witnesses (for the functions they perform).

4.5.2.2 Status of Immunity of a Party-appointed Expert Witness

The party-appointed expert witnesses in adjudication can easily be compared to the party-appointed expert witnesses in arbitration. So, same as in arbitration, expert witnesses in adjudication won't be immune from negligence suits by the party appointing them, but will be (probably) immune from suit by the opposing party.

4.5.3 Immunity of the Expert Giving Expert Determination

The immunity of the expert giving expert determination can also be considered (even though he is not considered part of the additional expertise). This expert, unlike an arbitrator, is not immune from suit, unless his immunity is explicitly established under the contract. That expert owes "a contractual and tortious duty of care to both sides and a party can obtain damages if the expert has been negligent" (Piercy and Creer 2016). This conclusion is supported in the *Arenson v. Casson Beckman Rutley & Co.*

(1977) case. In *Arenson v. Casson Beckman Rutley & Co.*, it was held that the mutual valuer, appointed jointly by the parties, was not an exception to the general rule of liability for negligence.

It is interesting to mention that the expert in Arenson did not act as a court witness, but had a role similar to that of a single joint expert. For that reason, the status of immunity of a single joint expert can be thought of to be similar to that of the mutual valuer in the *Arenson v. Casson Beckman Rutley & Co.* case. By that, the lack of immunity against negligence liability for the single joint expert (jointly-appointed expert witness) is confirmed.

4.6 Immunity Representation

Finally, figure 23 is an illustration showing the status of immunity of the different expert roles (or types of additional expertise) that can be involved during the construction claim and dispute resolution process. As shown in the figure, the experts that do not fall under any of the umbrellas (categories) below, are generally not entitled to immunity in case of negligence. On the other hand, the experts shielded by immunity are those who fulfil a quasi-judicial role or those who owe no duty to the party raising the negligence claim. The tribunal-appointed appraiser, though appointed by the tribunal, is not entitled to immunity because he carries duty to the parties (who agreed to be bound by his valuation) and fulfills a non-quasi-judicial role.

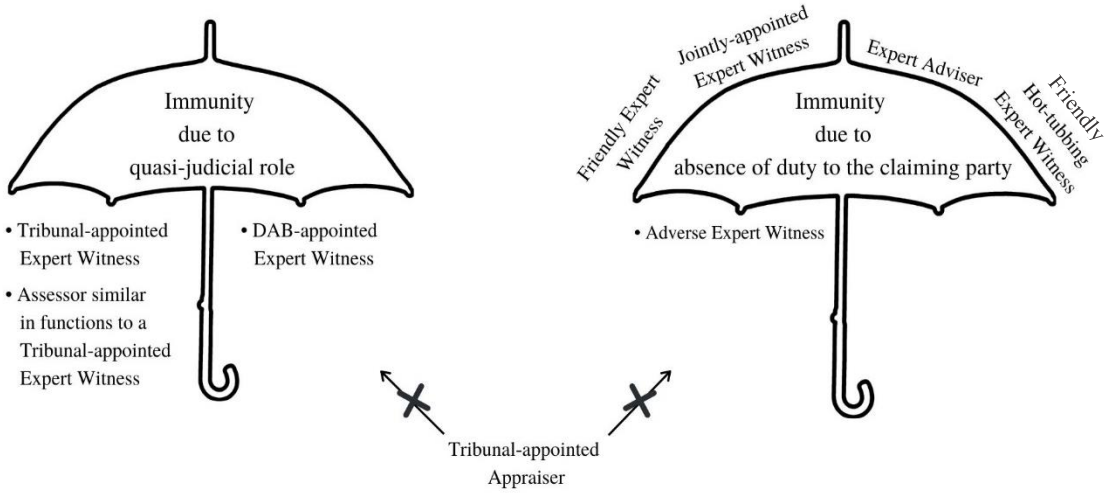


Figure 23 Immunity Representation

CHAPTER 5

SUMMARY AND CONCLUSIONS

5.1 Summary of Work

As previously mentioned, construction conflicts are unavoidable, but can be managed. To this end, the literature review chapter in this research focused on providing the necessary foundation of knowledge on construction projects, contracts, claims, and disputes, then proceeded to review the multi-step approaches suggested by the different standard conditions for managing construction conflicts and disputes. In addition, the literature review chapter introduced the major participants that are involved in such approaches. Moreover, several other participants, fulfilling expert roles along the process, were introduced. Hence, the research's focus was first to develop the complete set of expert roles typically involved in the construction claim and dispute resolution process. Next, the research intended to demonstrate the scenarios and stations of experts' interventions along the claim and dispute timeline.

Through this research, the different expert roles (or types of additional expertise) that might be involved during the construction claim and dispute resolution process were defined. Furthermore, the scenarios of experts' involvement during each phase of the construction claim and dispute resolution process were furnished (each scenario was unique in regard to the type and number of additional experts involved). Afterward, the types of experts typically engaged during each phase were determined then mapped onto the claim and dispute timeline. The purpose of that was to highlight the stations of expert intervention along the claim and dispute timeline and to visually frame the experts' involvement throughout the process.

Additionally, the research addressed the concept of negligence and the concept of immunity from negligence liability. Through literature review, case law review, and analogy, the status of immunity (from negligence liability) of the different experts involved in the construction claim and dispute resolution process was determined.

5.2 Conclusions

This research offers the following conclusions:

- There are multiple types of experts that can be engaged during the construction claim and dispute resolution process. The expert roles differ in nature, scope, and role requirements (requirement of impartiality, etc.).
- There are several possible scenarios of experts' involvement for each phase of the construction claim and dispute resolution process. These scenarios vary according to the number of additional experts involved, their type, and the party appointing them.
- Most experts, involved in construction claim and dispute resolution, are subject to liability in case of negligence. However, the experts that are entitled to immunity from negligence liability are those who fulfil a quasi-judicial role or those who owe no duty to the party raising the negligence claim.

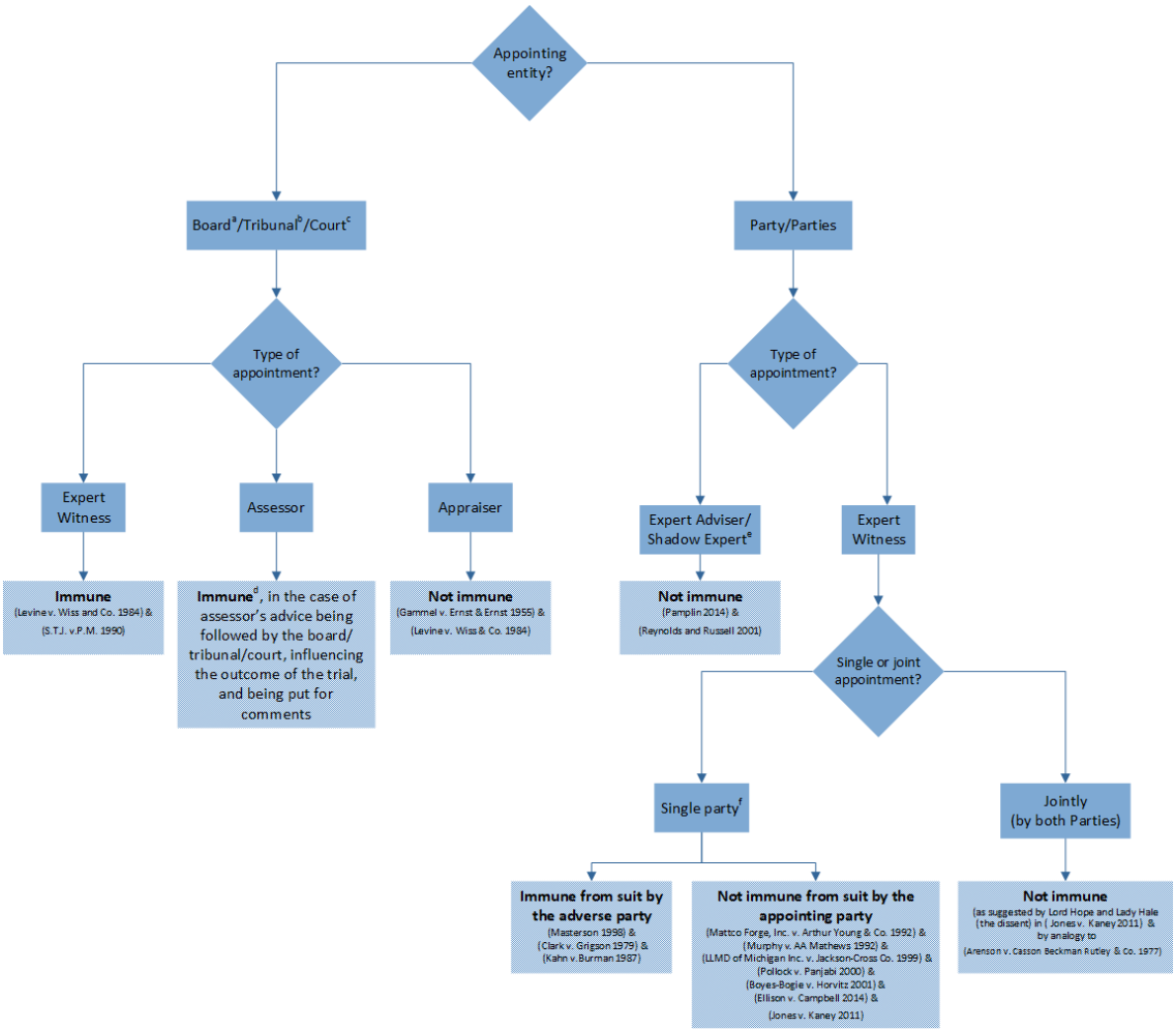
5.3 Recommendations

Finally, recommendations can be given to the participants involved in the claim and dispute resolution process. To start, parties to the conflict/dispute, or any ADR third party involved, must properly decide on the type of expert they wish to appoint based on: the phase or stage of conflict/dispute, the type of help or support needed from the expert (to be appointed), the number and types of experts already engaged in the conflict/dispute, cost of expert's appointment, etc.

As for the experts who wish to play an expert role during the claim and dispute resolution process, the following recommendations can be provided to them:

- Before agreeing to provide expert services, experts must assess the risk of liability associated with any expert role they plan to play. Figure 24 below can be used by experts to determine whether they are likely to be immune in case of negligence in performing their expert role.
- For those instances where experts are subject to liability, experts must secure the proper coverage of professional indemnity insurance and must ensure that such coverage does not preclude the type of interventions/services they play as part of their roles in the claim and dispute resolution process.
- Where liability is bound to be carried by experts (due to the roles they play), experts need to be cognizant of the ways and means of either waving, or limiting, their liability through the contract/terms of reference which regulate their engagement with the appointing entity.

- Experts must be guided by principles of objectivity, professionalism, due diligence, and standard of care.
- Assessors, appraisers, and all types of expert witnesses must abide by their requirements of impartiality and independence (to avoid potential partiality consequences).



[a] Adjudication/Review Board;
[b] Arbitration Tribunal;
[c] Court of Law;
[d] Immunity is likely granted to the assessor due to the similarity between his role and that of a court-appointed expert witness (by analogy to (Levine v. Wiss and Co. 1984) & (S.T.J. v.P.M. 1990));
[e] Expert acting in advisory capacity at any stage of the problem, dispute, or claim;
[f] Regardless whether hot-tubbing takes place or not (the hot-tubbing scenario was analogized to the party-appointed expert witnesses' scenario in (Jones v. Kaney 2011)) .

Figure 24 Expert's Self-assessment of his Entitlement to Immunity from Negligence Liability

5.4 Limitations

Some of research limitations should be noted. First of all, this research adopted the FIDIC (2017) claim and dispute resolution timeline as the standard timeline along which the mapping of expert roles was done. However, by comparing all standard timelines, it can be observed that the FIDIC claim and dispute timeline encompasses the major phases included in any other standard timeline. Hence, by adopting the FIDIC claim and dispute timeline, the scenarios of experts' involvement and the mapping of the expert roles were developed for the typical phases of a standard timeline. To be noted is that, for each standard timeline (AIA, ConsensusDocs, EJCDC, JCT, or NEC), the order/sequence of phases may differ. Consequently, the stations (and timeframes) of experts' interventions would correspondingly vary for each standard timeline.

Secondly, this research relied on practice-related information, which is offered by the literature and through the expert-type roles assumed by the research principle over more than three decades of practicing claims and disputes resolution, in order to conceptualize the scenarios of experts' involvement. No further inquiries were as such sought from expert witness professionals by way of validating the contemplated scenarios.

Lastly, out of 22 legal cases extensively examined as part the performed research, only 15 cases directly or analogically contributed to drawing the boundaries of immunity (if any) that can be enjoyed by the various classes of expert roles. Further case law review may further validate the findings but is highly unlikely to negate the clearly derived immunity statuses.

5.5 Significance of the Research

This research strives to help experts, who are just paving their way in the claims and dispute resolution domain, learn more about the characteristics of each expert role involved in this domain, along with the time frames and scopes within which each expert role is convened. It also notifies the practitioners of the current immunity trends and warns them of their liability in case of negligence. Therefore, the research clarifies ambiguities and indirectly contributes to improving the performance of experts and positively affects the construction claim and dispute resolution process.

5.6 Future Work

Future effort may be put into studying the experts' immunity from liability against claims other than negligence, like claims for defamation, perjury, etc. Future research may also attempt to identify all forms of liability carried by experts in case of negligence and explain its apportionment based on case law review. This would make it easier for experts, who are not entitled to immunity from negligence liability, to better evaluate the risks of negligence. Moreover, future research may work on providing experts with guidelines to avoid negligence, follow the standard of care, and get protection against liability.

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