



Prolongation Cost as a Remedy for Construction Contracts Delays

تعويضات المالية للتمديد الزمني الناتج عن التأخير في المشاريع الإنشائية

By

Student Name: Hazem Nabeel Khamis Hasweh

Student ID number: 2013122032

Dissertation submitted in partial fulfilment of the requirements for the
degree of MSc in Construction Law and Dispute Resolution

Faculty of Business

Dissertation Supervisor

Professor Abba Kolo

January 2016

ABSTRACT

Although the construction companies in the United Kingdom and the United Arab Emirates spend colossal amounts of monies to prepare time related cost claims, those claims usually do not reflect the contractor's actual loss or damage incurred. Indeed, it is complex task to determine the cause and effect of delays, notwithstanding the applicable contracts terms and the National statutes that usually encompass defined the claim boundaries. This dissertation discusses the various types of the head of claims and the methods for proving and quantifying claims in the United Kingdom and United Arab Emirates by using *Doctrinal Research* method supported by *Qualitative Research*. The various grounds for claims have been analysed, substantiated and quantified to broaden the understanding on how successful claims can be made. The dissertation therefore is likely to help the contractors to produce more credible claims whilst concentrating on well recognized heads of claims rather than pursuing unrecoverable and unjustified claims and damages.

Keywords: Prolongation Cost, Time Related Cost, Damages, Loss, Dispute, UAE

ملخص

على الرغم من أن شركات البناء في المملكة المتحدة والإمارات العربية المتحدة تنفق مبلغ ضخم من الأموال لإعداد مطالبات تكلفة الوقت الإضافي ذات الصلة، تلك المطالبات عادة لا تعكس الخسائر أو الأضرار الفعلية للمقاول. في الواقع، بل هي تعد مهمة معقدة من أجل تحديد السبب التأخر و نتيجته على الرغم من وجود العقود والقوانين التي في العادة تشتمل تعريف على حدود المطالبة. تتناول هذه الأطروحة أنواع مختلفة من المطالبات الرئيسية و الوسائل الكافية لإثبات وقياس المطالبات في المملكة المتحدة والإمارات العربية المتحدة باستخدام طريقة البحث العقائدي بدعم من البحث النوعي. وقد تم تحليل مختلف أسباب المطالبات، بالإضافة لإثباتها وتحديد كمياتها من أجل توسيع مفهوم حول كيفية القيام بالمطالبات الناجحة التي يمكن تقديمها. وبالتالي فإنه من المرجح للأطروحة أن تساعد المقاولين لإنتاج مطالبات أكثر مصداقية بالتركيز على المطالبات الرئيسية المعترف بها بدلا من متابعة المطالبات والأضرار الغير قابله للإسترداد.

ACKNOWLEDGEMENT

This research has been accomplished by the support of many people. My highest appreciation is dedicated to Dr. Abba Kolo, the dissertation supervisor, for all his guidance, support and generous advice in the compilation of this work.

Many warm and loving thanks is also extended to my parents, family and friends for all their encouragement, supports and prayers.

Table of Contents

CHAPTER 1: INTRODUCTION	8
1.1) Background.....	8
1.2) General Principle	8
1.3) Claim under terms of the Contract.....	9
1.4) Claim for Breach of Contract.....	9
1.4.1) The First Limb	9
1.4.2) The Second Limb	10
1.5) Prolongation Claim	10
1.6) Time Related Cost (Prolongation Cost)	11
1.7) Research Problem	11
1.7.1) Unclear Law for Damages in Construction Contracts	11
1.7.2) Standard of Proof and Quantification of the Claim	12
1.8) Research Questions	12
1.9) Aims and Objective.....	12
1.10) Research Methods	13
1.11) Structure of Dissertation	13
CHAPTER 2: INTEREST AND FINANCING CHARGES	15
2.1) Introduction.....	15
A) Interest Claim.....	15
B) Financing Charges	15
2.2) Statutory and Contractual Interest.....	16
2.2.1) Statutory Interest in the English Law.....	16
2.2.2) Contractual Interest	17
2.3) Financing Charges for Breach of Contract.....	20
2.3.1) Proof and Quantification of Financing Charges Claim.....	21
2.4) <i>FIDIC</i> (Red Book 1999) Perspective.....	24
2.4.1) Late Payment Contractual Provision.....	24
2.4.2) Late Payment as Breach of Contract.....	25
CHAPTER 3: OVERHEADS	28

3.1)	Introduction.....	28
A)	Overview.....	28
B)	Types of Overheads	28
3.2)	Overheads	31
3.2.1)	Loss of Opportunity	31
3.2.2)	Extra Cost Claim (Wasted Management Time and On-site Overheads)	34
3.3)	Breach of Contract	36
3.4)	<i>FIDIC</i> (Red Book 1999) Perspective.....	37
CHAPTER 4: LOSS OF PROFIT.....		40
4.1)	Introduction.....	40
4.2)	Loss of Profit Under Term of the Contract.....	40
4.3)	Breach of Contract	43
4.4)	<i>FIDIC</i> (Red Book 1999) Perspective.....	44
CHAPTER 5: COST OF CLAIM PREPARATION.....		46
5.1)	Introduction.....	46
5.2)	Proof and quantify the Cost of Claim Preparation	46
5.3)	<i>FIDIC</i> (Red Book 1999) Perspective	47
5.3.1)	Under the term of Contract	48
5.3.2)	In Connection with the Contract	49
CHAPTER 6: DISRUPTION		51
6.1)	Introduction.....	51
A)	Overview.....	51
6.2)	Proof of the Claim.....	52
6.3)	Quantification of Claim	53
6.4)	<i>FIDIC</i> (Red Book 1999) Perspective.....	54
CHAPTER 7: UAE PERSPECTIVE		55
7.1)	Introduction.....	55
A)	Overview.....	55
B)	UAE's Source for Obligations and the Basis to Claim	55
C)	Freedom of Contract	57
D)	Experts and Expert's Reports.....	58

E) The Effect of Article 390 of the CTC	60
7.2) Delay Damages in UAE Law	63
7.2.1) Direct Loss	63
7.2.2) Consequential Loss	64
7.2.3) Loss of profits and opportunity	64
7.2.4) Interest.....	66
7.2.5) Overheads	67
7.2.6) Cost of Claim Preparation.....	68
CHAPTER 8: CONCLUSION AND RECOMMENDATION.....	69

CHAPTER 1: INTRODUCTION

A construction contracts provides an unlimited basis for claims, which the contractor can claim for different cause of loss¹. The writer will focus in this paper on the most common category in the construction contract. In practice, *Prolongation Claim*² is the claim associated with the contractor entitlement for extension of time (*EOT*). However, the contractor's entitlement for *EOT* will not by default entitle him to prolongation cost. Indeed, several heads of claim shall be discussed in the following chapters which will feature in the most claims submitted for prolongation costs.

1.1) Background

Construction contracts will specify a completion date for the project; any delay in the completion will reasonably cause damages for both parties. Logically, the party who is responsible for the delay should bear the loss of the other party. Therefore, the aggrieved party has the right to claim for the damages associated with the delay. Usually, the employer will recover the loss of the delay through the liquidated damages clause. On the other hand, the contractor will generally claim for the prolongation cost. Indeed, the delay in the construction contract shall escalate the contractor's loss and expenses and the contractor will require additional resources to be involved longer than what have been priced to be deployed prior the employer's delay events.³

1.2) General Principle

Standard construction contracts, especially *FIDIC*⁴ (Red Book 1999), facilitates the provisions which allow the parties of the contract to adjust the total cost of the contract in the event of a delay occurrence. The cost adjustment depends on the responsible party for the delay and the risk allocation in the contract provisions, both are subject to the causation principle. The contractor's recovery for the loss will be based on provisions under terms and

¹ E Zaneldin, 'Construction Claims in the United Arab Emirates: Types, Causes, and Frequency' (2005) 2 United Arab Emirates University (UAEU) 813-818.

² D Chappell, D Marshall, V Powell-Smith, S Cavender, *Building Contract Dictionary* (3rd edn Blackwell Science, Oxford 2001) 335, has defined the prolongation claim as "A claim made by the contractor for financial reimbursement because the contract period has been extended as a result of the default of the employer".

³ J Bailey, *Construction Law* (Routledge CPS, London 2011) 863

⁴ Condition of Contract for Construction "for building and engineering works designed by the employer" Red Book published on 1999.

conditions of the contract or for any breach of contract. Definitely, the breach of contract will be evaluated in accordance with the *Hadley v Baxendale*⁵ rules⁶.

1.3) Claim under terms of the Contract

The contract provisions includes an express terms allow the contractor to recover the loss occurred by the other party. Subsequently, the contractor can claim for loss in accordance with the contract provision rather than claiming in accordance with the common law. Indeed, the contract provisions reduce hardship for the claimant party⁷.

Therefore, it's common practice for the parties to include all remedial terms in the contract provisions to regulate the parties' right to claim. On the other hand, the contract terms may include a clear provision that excludes the parties' right to claim. However, silent provisions will not exclude the contractor rights to pursue the claim in accordance with common law.

1.4) Claim for Breach of Contract

The breach of the contractor may cause damages that have not literally specified by the contract provisions, therefore such damages have to be determined based upon the remoteness of the damages with the breach. Eventually; the entitlement will be settled by the court's decision in the *Hadley v Baxendale*.

The liability has been broken into two limbs that they are related to the foreseeability and remoteness of the damages at the time of making the contract, the two limbs will be further detailed in the following subsections.

1.4.1) The First Limb

The first limb of *Hadley v Baxendale* rule covers the damages which arose naturally as a result of the breach, while the cause occurred within the usual practice of works. The damages related to the first limb are referred by some scholars as the *direct damages*^{8,9}.

⁵ *Hadley v Baxendale* (1854) 156 ER 145

⁶ J Bailey, *Construction Law* (Routledge CPS, London 2011) 864

⁷ J Bailey, *Construction Law* (Routledge CPS, London 2011) 864

⁸ J Bailey, *Construction Law* (Routledge CPS, London 2011) 1012 has quoted J Atkinson statement in *Saint Line Ltd v Richardsons Westgarth* [1940] 2 KB 99 at 103 that "*Direct damages is that which flows naturally from the breach without other intervening cause and independently of special circumstances, while indirect damage dose not so flow*"

⁹ J Bailey, *Construction Law* (Routledge CPS, London 2011) 1011 to 1013

1.4.2) The Second Limb

The second limb of *Hadley v Baxendale* rule covers the damages that have reasonably been within the parties' contemplation at the time of making the contract. Therefore, such losses will not occur within the usual practice of the works but however the parties are aware of the consequences.

The parties in the second limb undertake the liability to each other for the damages that could be foreseen, unless and until the contract expressly waives such liability, therefore the law will impliedly consider the parties undertaking for such foreseen liability and is subject to the contract conditions.¹⁰

The construction contract includes regular trends for various types of the breaches that the parties are most likely to be aware of and who are in best place to be aware of their consequences. However, this is not a settled rule. The law may consider obvious loss as either arise or not within the usual practice of the works. Therefore, some type of losses can be recovered for instance by the first limb, second limb or ultimately will not be awarded. Each case can be determined based on the facts surround it.

1.5) Prolongation Claim

The meaning of a claim for prolongation is the recovery of the actual loss that the contractor incurs as a result of the employer's delay event which causes delay in the project completion date. Certainly, the contractor has to prove *EOT* entitlement prior the submission of the prolongation claim since the evidences that entitles the contractor for *EOT* are almost similar to the evidence required to claim for prolongation cost but however, the quantification of any losses are conducted as separate exercise.¹¹

Not all delay or *EOT* events will provide an entitlement to claim for prolongation cost. *D. Chappell* has concluded the court acceptance at *The Diamond Trading v Atos Origin*¹² to

¹⁰ J Bailey, *Construction Law* (Routledge CPS, London 2011) 1014 to 1015

¹¹ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 136

¹² *The Diamond Trading Company Ltd v Atos Origin IT services UK Ltd* (2010) EWHC 3276 (TCC)

dismiss the contractor's entitlement for prolongation cost whenever the employer's delay event occurred in concurrent with the contractor's event by stating "*By contrast, the contractor cannot recover damages for delay in circumstance where he would have suffered exactly the same loss as a result of causes within his control or for which he is contractually responsible*".¹³

In addition, the contractual terms may exclude the parties from the liability for the reason related to delay. As such, the engineer has to in addition to the concurrency evaluation; he also has a duty to assess the validity of the employer's liability to the loss.

1.6) Time Related Cost (Prolongation Cost)

The *EOT* makes it more likely to claim for additional payment for the loss and expenses occurred to the contractor for the following head of claims:

- Interest and Financing Charges
- Overheads
- Loss of Profit
- Cost of Claim Preparation
- Disruption Claim (For Critical Delays)

1.7) Research Problem

1.7.1) Unclear Law for Damages in Construction Contracts

As will be discussed, UAE Law has not specifically addressed all the construction claims in the legal system. The courts in general will rely on the contractual liability to prove the cause and effect related to the claims stated in the statement of claim. There are some cases that allowed for the time related cost (Prolongation Cost) for whole or some of the aforementioned head of claims. The general principle for the damage recovery is the actual loss; however can they be easily identified?

¹³ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 138

Construction contracts may not include all damages that the contractor may encounter in association with the delay occurrence. Therefore, the law will intervene to recover the contractor's loss. The foreseeability of the damages and their remoteness are covered within the damages in the law of Tort.

1.7.2) Standard of Proof and Quantification of the Claim

The law is not clear, whether the contractor needs to provide written evidence for all head of claims. The construction contracts include thousands of activities, work force and material on site and it is logical that every specific extent can't be recorded and specified as clear written evidence. This is a critical subject as it will demonstrate the contractor's ability to prove the cause and effect of the delay event. Indeed, it is the contractor's responsibility to prove the actual loss and expenses that he claims under prolongation costs.

The law has not provided a significant mechanism to quantify the contractor's damages. The actual loss is the general rule but not all head of claims that the contractor may claim can be easily quantified. Therefore, the reasonableness in the quantification may lead the court for the final decision.

1.8) Research Questions

The writer seeks to reply to the following questions:

1. What are the damages related to prolongation cost claims?
2. How to prove the damages of prolongation cost claims?
3. How to quantify the damages of prolongation cost claims?

1.9) Aims and Objective

The aim of this research is to study the extent that English, as well as UAE Law, allows for recovery of incurred damages in accordance with the contractor's claim for prolongation cost.

To fulfil this aim, the following objectives have to be considered,

1. To understand the difference between the recovery under the terms of the contract and the actual breach of the contract;
2. To verify the occasions in which the contractor can claim the damages by the contract provision or by the law and legislation;
3. Analyse the possibility for the contractor's related time loss recovery whenever the actual loss cannot be identified; and
4. To provide a clear understanding for the law perspective and an overview to various head of claims.

1.10) Research Methods

Basically, the writer has adopted the *Doctrinal Research* method to respond to the previous questions. The response required in-depth study from different text books, scholars' articles, laws and case laws for the purpose of this research. All relative research assets have been cited in accordance with *OSCOLA*¹⁴ standards.

However, this approach for the *Doctrinal Research* has been supported with *Qualitative Research* by conducting face to face interviews with *Expert/ Arbitrator* for a limited scope of the research, specifically in relation to the expert's reports and the courts' consideration for the time related cost in UAE.

1.11) Structure of Dissertation

This dissertation contains eight chapters; the current chapter facilitates the background for the consequences of the delays in the construction contract in accordance with the contractor's and the employer's perspective. The contractual general principle to adjust the cost based on the responsible party has been mentioned. Also, this chapter has differentiated between the claim under terms of the contract and claim as breach of contract for either damages that may arise as natural result of the delay or has not been specified as too remote.

¹⁴ The Oxford Standard Citation of Legal Authorities, produced by the School of Law, Social Sciences and Communication and the Department of Learning & Information Services, 2009/10.

The definition of the prolongation claim and the time related head of claims are also included.

The dissertation also recognizes the research problems and the related questions that the writer seeks to answer. The writer's main aims and objectives that have been overlooked through various research methods are also included.

- Chapter 02 provides the English Law perspective for the interest and financing charges and the various method of prove and quantification for the statutory and contractual interest. Moreover, *FIDIC*'s perspective to allow for interest and financing charges as term under the contract.
- Chapter 03 provides the English Law perspective for the overheads and wasted management time and also provides the law definition and differentiation between the overheads and wasted management time. The chapter will include the method of proving the loss and the allowance that has been made by the law and to use the formulas for the loss quantification.
- Chapter 04 provides the English Law perspective for the loss of profit and the various necessities and requirements that the court requires in order to prove such a claim, the claim is not only required to prove the cause but also the fact that the loss was not remote.
- Chapter 05 provides the English Law perspective for when the court will accept the cost of claim preparation, various scenarios have been assumed to defend the contractor's position to claim for such assumed loss.
- Chapter 06 differentiates between the critical and non-critical Disruption Claim and further focus on the critical delay that will affect the contractor's performance at the site.
- Chapter 07 includes the UAE courts' understanding for the available laws to interpret the Articles to suit the requirements of the actual loss recovery. The chapter has partially relied on field expert opinion to conclude the courts understanding for construction loss recovery.
- Chapter 08 includes the writer's conclusion and final discussion which subsequently leads to the recommendations.

CHAPTER 2: INTEREST AND FINANCING CHARGES

2.1) Introduction

A) Interest Claim

The claim for interest is the most common head of claim for prolongation cost in construction contracts. The interest as a remedy to recover the damages for the delay can be divided based on its cause and effect into two main categories.

Late Payment as the Cause of Delay Event

In general, late payment is one of the employer's delay events that regularly can cause delay to the project and subsequently affects the completion date. Indeed, not all late payment events affects the project completion date, but the claim for late payment interest can be made irrespective of the contractor's entitlement for *EOT*.

Late Payment as the Effect for Delay Event

The contractor may obtain an entitlement for extension for time for reasons not related to the late payment. The contractor's schedule of payments will indeed be affected by the extended time. For instance, the contractor may obtain an *EOT* for reasons related to the delay in issuance of drawings which subsequently affects the contractor's restitution for the retention money. Accordingly, the contractor may claim for the interest for the delayed payment.

B) Financing Charges

The contractor may incur additional expenditure to maintain the contractor's obligations in progress. Indeed, additional funds are required to fill the obligatory gap. Therefore, the cost of performance will increase. In practice, the contractors are more reliant on the outsourced funds for their business development. Thus, the contractor may incur loss of interest for the borrowed money. On the other hand, the contractor's in-sourced fund and the unpaid sums

will affect the contractor's opportunity for investment¹⁵. Definitely, that may over turn the contractor's profit into a potential massive loss¹⁶. The financing charges claim can be a head of prolongation claim at the contractor's statement of claim¹⁷.

2.2) Statutory and Contractual Interest

2.2.1) Statutory Interest in the English Law

Proof and Quantification of the Statutory interest Claim

In general, the English Law will only award the claims that they are included in the contractor's statement of claim and it would be entitled to be awarded in accordance with the law and contract.

The certainty of interest for late progress payment was in doubt till the issuance of the "*Late Payment of Commercial Debts (Interest) Act 1998*"¹⁸ which has settled the final step in this matter¹⁹. Notwithstanding, the English Law has respected the freedom of contract between the parties, except in the "*Unfair Contract Terms Act 1977*"²⁰. Thus, the "*Late Payment Act*" is not mandatory law to be applied in the presence of an express contractual term²¹. However, in the absence of contractual remedy for debt as a whole or in the absence of significant term in the remedy provision such as "*Period for which statutory interest runs*"²², the *Act*²³ will prevail. In addition, the parties are precluded from excluding the statutory right for interest in the late payment, except when there exists substantial contract terms for remedy to substitute.²⁴

¹⁵ I Wallace, *Hudson's Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1019

¹⁶ I Wallace, *Hudson's Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1016

¹⁷ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 96

¹⁸ Late Payment of Commercial Debts (Interest) Act 1998, c.20

¹⁹ J Glover, S Hughes, C Thomas, *Understanding the New FIDIC Red Book a Clause By Clause Commentary* (2nd Sweet & Maxwell, London 2006) 293

²⁰ Unfair Contract Terms Act 1977, c.50

²¹ The "*Late Payment of Commercial Debts (Interest) Act*" 1998 states in the sub-term S.8 (2) that "*Where the parties agree a contractual remedy for late payment of the debt that is a substantial remedy, statutory interest is not carried by the debt (unless they agree otherwise)*".

²² The "*Late Payment of Commercial Debts (Interest) Act*" 1998 states in the sub-term S.4 (7) that "*Statutory interest ceases to run when the interest would cease to run if it were carried under an express contract term*".

²³ Late Payment of Commercial Debts (Interest) Act 1998, c.20.

²⁴ The "*Late Payment of Commercial Debts (Interest) Act*" 1998 states in the sub-term S.8 (1) that "*Any contract terms are void to the extent that they purport to exclude the right to statutory interest in relation to the debt, unless there is a substantial contractual remedy for late payment of the debt*".

The substantial contract term for remedy should have interest at least 8 *percent* in simple rate above the official rate otherwise the statute rate will apply. Nowadays, the arbitrators have been granted the power by the “*Arbitration Act 1996*”²⁵ to award a compound interest rate.²⁶

To conclude, the statutory interest is an implied term in the construction contracts. The parties are not obliged to refer expressly in the contract to the *Act*²⁷ in order to reserve a statutory right for remedies for the late payment. However, it is suggested to include an express term for interest remedies either as referral to the statute or as contractual term.

The contract administrator has to consider the legal aspects in relation to the late payment remedies. The debt provision should include at least substantial rate for interest and the period of interest for late payment; otherwise the court will compensate the contractor based on the *Act* terms or the worst case scenario, the penalty contractual term will not be enforceable and will be substituted by the terms of the *Act*.

Therefore, the contract administrator who’s drafting the terms of the contract has to take into consideration both the variety of remedies in the construction field as well as the practicality of law that governs the precise remedies such as interest and financing charges.

2.2.2) Contractual Interest

Interest as a head of claim for prolongation cost can be claimed for the contractual debt and as damages for breach of contract. The claims for the contractual debt are formed whenever the benefit is confirmed to the other party. Indeed, the claim for contractual debt is subsidiary claim for breach of contract. However, both claims have different legal remedy procedures. Accordingly, as a matter of necessity, the contractor has to distinguish the occasions in which the contractor can claim for interest as contractual debt

²⁵ Arbitration Act 1996, c.23

²⁶ K Pickavance, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010) 1174

²⁷ Late Payment of Commercial Debts (Interest) Act 1998, c.20

or as damages for breach of contract. Also, the contractor has to make a distinction in how to prove and quantify the loss of interest for each scenario.²⁸

Interest as Contractual Debt

The interest on the late progress payment provision is most common contractual remedy in the construction contracts. However, the claim for late payment remedies as stated above is a controversial subject and has passed into many law precedents to settle the entitlements.

The standard forms of contracts contain explicit provisions to recover remedies for contractual debt. Mostly, the late payment provision associated with the engineer's failure to certify or associated with the employer's failure to pay the certified payment. Indeed, both are the employer's delay events that may entitle the contractor for *EOT*.

Proof of the Contractual Interest Claim

Originally, the remedies for the debts including late payment were conditional to express provisions in the contract. The remedies were formed from the interest of the due contractual debt. In restricted circumstances, English courts have allowed indirect damages as remedies for the late payment²⁹, in accordance with the *Hadley v Baxendale* limbs.³⁰

In fact, the contractor may prefer to claim remedies as interest for late payment as contractual debt rather than damages for breach of contract since, the judgment for debts and its associated interest can be granted without any hesitant irrespective of any counterclaim made by the defendant. On the other hand, the judgment for the breach of contract are mostly delayed in the courts as the courts are more comfortable to consider the defendant's counterclaim in parallel with the plaintiff's claim for

²⁸ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 13 to 14

²⁹ *Wadsworth v Lydell* [1981] 1 WLR 598

³⁰ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 263-264

damage in the breach of contract³¹; the same has occurred in the case of *Blue Chip v. Concrete Constructions*³².

As such, the contractor's claim for interest as debt is not restricted to the contractual provision. Indeed, the *Act* contains the minimum requirements that are required to prove the explicit claim for late payment. However, the contractor may also claim the late payment interest as breach of contract. Without a doubt, the claim for breach of contract for the late payment is not preferable especially when the contractor has to prove the loss in accordance with *Hadley v. Baxendale* rule.

Therefore, the interest as remedy for the contractual debts has to be written in due care with express provision that considers all debts scenarios. Prior the *Act*³³, the uncertainty in the late payment provision will give the plaintiff no choice but to prove the interest as special damages for breach of contract instead of contractual debt. Also, the courts follow a complicated procedure for proving the breach of contract claim rather than for the contractual debt.

Quantification of the Contractual Interest Claim

Subsequent to the *Act*³⁴, the agreed interest rates for contractual debt will have the effect until and unless the contract remedies are less than the statutory compensation rates and also in the event where the contract rates have not been specified, so the statute rates shall prevail. At the same time, the agreed interest rates have to be “substantial remedy”³⁵ and should not be interpreted as penalty; otherwise the statutory rates will be enforced³⁶; the decision of *Jeancharm Ltd v Barnet*³⁷ case has the same effect.

³¹ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 13 to 15

³² *Blue Chip Pty Ltd v Concrete Constructions Group Pty Ltd* [1996] 13 BCL 31

³³ Late Payment of Commercial Debts (Interest) Act 1998, c.20

³⁴ Late Payment of Commercial Debts (Interest) Act 1998, c.20

³⁵ The “Late Payment of Commercial Debts (Interest) Act” 1998 defines the substantial remedy in the sub-term S.9 that “A remedy for the late payment of the debt shall be regarded as a substantial remedy unless [...] (b) it would not be fair or reasonable to allow the remedy to be relied on to oust or (as the case may be) to vary the right to statutory interest that would otherwise apply in relation to the debt”.

³⁶ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 98 to 100

³⁷ *Jeancharm Ltd v Barnet Football Club Ltd* [2003] EWCA Civ 58

The English Law allows for minimum late payment interest, the parties can't agree for less but however can agree for more to the extent that the remedies are not excessive. The definition of *substantial remedy* is debated and has not been specifically interpreted; the courts still have the last words for the fairness of the amount of the remedies.

To conclude, the English Law has not only secured the contractor's statutory right for minimum rates of interest but also has protected the inexperienced employer to agree on interest at excessive rates. Unlike the maximum rates, the minimum interest rates have been precisely specified as at least 8 percent in simple rate above the official rate. Therefore, no doubts surround the minimum interest rates. The maximum rates are conditional to exceed the substantial remedy. Indeed, the contract administrator has to consider the court's interpretation for the substantial remedies in order to not to exceed.

The *Act* as well as the standard form of contracts do not address the contractor's entitlement for interest as remedies for the scenarios in which the paid payment is under-certified or for improperly withheld payment. The engineer's improper evaluation for progress payment or *EOT* shall for both cause unjustified reduction to the contractor's certified payment. The following section will discuss in detail the scenarios that are not included in the late payment provisions.

2.3) Financing Charges for Breach of Contract

The decision of the Australian's high court in the case of "*Hungerfords Ltd v. Walker*"³⁸ is the turning point for the interest claims concept. "*Hungerfords interest*" is not an interest as the phrase emphasis; it is damages for actual loss occurred due to the finance charges³⁹. *D. Chappell* has defined the Finance Charges as "*The financial burden to the contractor who receives money later than they should have received it under the terms of the contract. It is settled that such charges are a constituent part of 'direct loss and/or expense' [...]. Financing charges may also be recoverable as a head of special damages [...]*"⁴⁰.

³⁸ *Hungerfords v Walker* (1989) 17 CLR 125

³⁹ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 102

⁴⁰ D Chappell, D Marshall, V Powell-Smith, S Cavender, *Building Contract Dictionary* (3rd edn Blackwell Science, Oxford 2001) 166

The general concept of *Hungerfords interest* is where the plaintiff has suffered damages from the interest on the money that he has borrowed or loss of earning for the money that he would have been invested. The benchmark for *Hungerfords interest* remedies is the actual loss and that is conditional on the lack of interest debt agreements on various scenarios.⁴¹

In other words, the financing charges as remedies are categorized as damages for breach of contract rather than contractual debt. Thus, if the engineer fail to certify or the employer fails to pay is considered as contractual debt within the “*Late Payment Act*” scope. Meanwhile, the issuance of the payment certificate by the engineer with certified amounts which are less than the actual physical progress or for progress amount less than the minimum amount allowed to be issued in accordance with the contract then the “*Late Payment Act*” will not apply⁴². Therefore, the contractor has to prove the engineer’s breach of contract to recover the loss occurred for the financing charges.

As stated by Mason C.J in the case of *Hungerfords Ltd v. Walker* that the first and second limb circumstances in *Hadley v. Baxendale* has to be differentiated to assign the loss at specific limb, at the first direct loss or in the second indirect loss then the loss will be quantified⁴³.

2.3.1) Proof and Quantification of Financing Charges Claim

In the event of breach, *Hadley v. Baxendale* rules will apply for such remedy. Thus, the contractor has to prove that he has borrowed money to maintain the work or he has lost the earning of the money that he would invest. Also, the contractor has to prove that the loss was foreseeable and within the parties contemplation at the time of making the contract.

⁴¹ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 102 to105

⁴² FIDIC (Red Book 1999) Sub-Clause 14.6 stated “the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deduction) be less than the minimum amount of Interim Payment Certificate (if any) stated in the Appendix to Tender”

⁴³ I Wallace, *Hudson’s Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1019

Direct Damages for Breach of Contract

The English leading case *Minter v Welsh*⁴⁴ for late instruction and breach of contract had relied on the general provision from the 1963 RIBA form of contract in remedies which was related to “*direct loss and expenses*”. The provision wording was compatible with the first limb of *Hadley v. Baxendale* for damages that arose naturally from the works. For such a breach, the contractor is obliged to maintain the progress and mitigate the delays as appropriate. As a result, additional cost will be incurred by the contractor to progress with the works⁴⁵. Thus, the court has allowed for damages in the scope of financing charges⁴⁶. Later on, *Goff L.J* has concluded in the case of *Rees and Kirby*⁴⁷ that the interest rate has to be calculated in compound rates rather than simple rates since the banks are calculating interest for the borrowed money in compound rates for the financing charges in the *Minter’s* case.⁴⁸

In view of the above, the construction contract may not include provisions for all debts scenarios. Thus, the plaintiff’s only choice then is to claim remedies as damages under the breach of contract. In general, the contractor can prove the breach by the second limb of *Hadley v. Baxendale* rule; however, the general contractual terms for recovery of the damages can be interpreted as they have been naturally arisen by the breach of contract.

The loss that the contractor will suffer by the withheld or under-certified payments can be considered as direct reason for delay. Indeed, both should be immediately notified to the engineer to ensure the engineer’s awareness for the loss incurred and that shall entitle the contractor for *EOT*. Not only that, the contract should also include a general provision that can be used to demonstrate that the loss was naturally arisen from such a breach, otherwise, the contractor has to claim the loss associated with the breach of contract by the second limb of *Hadley v. Baxendale* rule.

⁴⁴ F.G. *Minter v Welsh Health Technical Services Organization* (1980) 13 BLR1

⁴⁵ I Wallace, *Hudson’s Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1019

⁴⁶ I Wallace, *Hudson’s Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1020

⁴⁷ *Rees and Kirby Ltd v Swansea City Council* (1985) 30 B.L.R. 1

⁴⁸ K Pickavance, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010) 1173

Indirect Damages for Breach of Contract

In English Law, the legal category for the late payment has always been a contractual debt. Therefore, the interest on the late payment can't be recovered as indirect damages for the breach in accordance with the second limb of *Hadley v. Baxendale* rule. Thus, remedial provision for the late payment is required to recover the loss of interest.

Until recently, this approach has been overruled by “*Sempra Metal*”⁴⁹ case, which allowed for damages for the late payment to be claimed as financing charges for the overdraft amount or for the loss of investment. However, the allowance was conditional on the reasonableness of the loss. In that effect, *Lord Nicholls* commented on *Sempra Metal* case “*These losses will be recoverable, subject to the principles governing all claims for damages for breach of contract, such as remoteness, failure to mitigate and so forth [...]*”⁵⁰. Based on that, late payment financial charges are recoverable as damages for the breach of contract whenever the loss is within the parties' contemplation and foreseeable at the time of making the contract, then the second limb of *Hadley v. Baxendale* is fulfilled.⁵¹

Accordingly, the contractor has to prove that the indirect loss has reasonably caused delay to the contractor's rate of progress. Indeed, the withheld payment and under-certified consequences have to be within the parties' contemplation at the time of making the contract. Subsequently, the contractor can claim for *EOT* for reasons related to the breach of contract in accordance with the second limb of *Hadley v. Baxendale* rule. Otherwise, the contractor can claim for the loss associated with the under-certification and withheld as a disruption claim.

⁴⁹ *Sempra Metals Ltd v Inland Revenue Commissioners* [2007] UKHL 34

⁵⁰ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 264 and also *Lord Nicholls* stated in the same reference “*In the nature of things the proof required to establish a claimed interest loss will depend on the nature of the loss and the circumstances of the case. The loss may be the cost of borrowing the money. That cost may include an element of compound interest. Or the loss may be loss of an opportunity to invest he promised money. [...] there are no special rules for the proof of facts in this area of law*”

⁵¹ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 264

2.4) *FIDIC* (Red Book 1999) Perspective

FIDIC has provided the parties in Sub-Clause 14.7 [*Payment*]⁵² with adequate process for payment lifecycle. The contractor's claims are revolving around the progress payment, additional cost for *EOT* and reimbursement of the money that has been expended or ought to be expended in the work. In general, the contractor has to prove the entitlement as prerequisite requirement to certify the progress payment, except for the late payment's financing charges⁵³.

2.4.1) Late Payment Contractual Provision

FIDIC herein has called the contractual interest as financing charges despite the fact that Sub-Clause 14.8 [*Delayed Payment*]⁵⁴ is an express provision for unpaid money. However, *FIDIC* has argued in the term inference at Sub-Clause 14.8 [*Delayed Payment*]⁵⁵ that financing charges are deemed to be expended whenever the payment become due with three percent rate above the central bank discounted rate. Thus, the contractor is not required to prove the financing charges associated with the late payment breach. In other words, *FIDIC*'s definitions for financing charges in late payment provision is same as contractual debt.

FIDIC has only defined the late payment financing charges reimbursement as damage for breach of contract in the event where the engineer has failed to certify or the employer

⁵² *FIDIC* (Red Book 1999) Sub-Clause 14.7 states that "The Employer shall pay to the Contractor: (a) the first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents[...], (b) the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; and (c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate"

⁵³ B Barr, L Grutters, B Totterdill, *FIDIC User's Guide a Partial Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014) 44

⁵⁴ *FIDIC* (Red Book 1999) Sub-Clause 14.8 states that "If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [*Payment*], the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay"

⁵⁵ *FIDIC* (Red Book 1999) Sub-Clause 14.8 states that "Unless otherwise stated in the Particular Conditions, these financing charges shall be calculated at the annual rate of three percentage points above the discount rate of the central bank in the country of the currency of payment, and shall be paid in such currency".

has failed to pay⁵⁶. Other than that, all claims are to be in accordance with the Contractor's claim procedure in the *Sub-Clause 20.1 [Contractor's Claims]*^{57 58}.

In practice, the late payment may have other scenarios than the engineer's failure to certify or the employer to pay such as the under-certified paid certificate and the withheld payment. Thus, the contractor has to prove the engineer's breach of contract terms that allows the engineer to withhold the payment and not to fairly determine the amount due in accordance with *Sub-Clause 14.6 [Issue of Interim Payment Certificates]*⁵⁹.

After the decision in the "*Morgan Grenfell v Seven Seas*"⁶⁰ case, the *ICE*⁶¹ form of contract has noticed the gap in the ICE 5th edition. Therefore, *Sub-Clause 60.6* has been modified to include the interest remedies for under-certified payment. However, *FIDIC* did not follow the *ICE*'s enhancement for the under-certified payment which leaves no choice but to claim for breach of contract⁶².

2.4.2) Late Payment as Breach of Contract

Indirect Damages for Breach of Contract

In general, the contractor has the right to claim for additional time and cost for any reason but conditional to claim within reasonable time in accordance with *Sub-Clause*

⁵⁶ B Barr, L Grutters, B Totterdill, *FIDIC User's Guide a Partical Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014) 223

⁵⁷ *FIDIC* (Red Book 1999) Sub-Clause 20.1 states that "If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim"

⁵⁸ B Barr, L Grutters, B Totterdill, *FIDIC User's Guide a Partical Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014) 46

⁵⁹ *FIDIC* (Red Book 1999) Sub-Clause 14.6 states that "An Interim Payment Certificate shall not be withheld for any other reason, although: (a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed"

⁶⁰ *Morgan Grenfell Ltd and Sunderland Borough Council v Seven Seas Dredging Ltd* (1991) 49 B.L.R 31

⁶¹ ICE Conditions of Contract, 6th Edition by Institution of Civil Engineers

⁶² --, 'Commentary on FIDIC IV Clauses' <https://www.scribd.com/doc/13286166/62/CLAUSE-60-Certificates-Payments-of-the-Contractor> accessed 21 November 2015 and the paper states at page 3 that "Readers may find it strange that references will be found in this work to both the ICE's 5th and 6th Edition. The ICE 5th Edition is referred to because the draftsman of FIDIC's 4th Edition was plainly heavily influenced by ICE's 5th Edition" and also states at page 198 that "Interim certificates shall be paid within 28 days of their delivery to the Employer and the Final Certificate within 8 weeks. Interest will accumulate on late payment at the rate stated in the Appendix. This clause represents FIDIC's first attempt to draft in detail the payment clause. In the 3rd and preceding editions, clause 60 merely suggested that the detailed provision should be drafted by the parties to the contract following a menu of subjects set out in Part II. The influence of ICE 5th, the payment clauses of which were often used to fill the void in earlier editions, is clearly visible"

20.1 [*Contractor's Claims*] procedure⁶³. Therefore, the contractor has to notify the engineer in accordance with *Sub-Clause 20.1* that the payment certificate is under-certified or the payment suspension is not in accordance with *Sub-Clause 14.6*. By doing so, the contractor has guaranteed his contractual right in accordance with the *Sub-Clause 20.1* for remedies and provided the engineer with the adequate substantiation to prove the engineer's breach of contract; otherwise the contractor will lose his contractual right for breach of contract remedies⁶⁴.

Accordingly, the contractor has to claim for *EOT* and financing charges as damages in accordance with the first or second limb of *Hadley v Baxendale*. The latter is obviously more complicated and hard to prove since the engineer has issued the certificate in bona fide manner and in accordance with correct principles⁶⁵. Also, the contractor has to prove the actual loss on the overdraft or loss of investment which may be in contradiction with the contractor's submitted cash flow.

The contractor has to submit in coordination with the contractor's programme in accordance with *Sub-Clause 14.4 [Schedule of Payments]* the monthly estimate cash flow. The contractor's cash flow demonstrates the contractor's breakeven point between for the overdraft and earning level. Arguably, the contractor has to prove not only that the actual expenses but also that the actual expenses was not within the contractor's contemplation at the estimated cash flow. Indeed, the variance was not serious between the overall actual cash flow and cumulative estimated cash flow prior the payment withheld or under-certified.

Thus, the contractor will be more successful to obtain *EOT* and to reimburse the late payment financing charges for the under-certified and the withheld payment by the second limb *Hadley v. Baxendale* rule.

⁶³ B Barr, L Grutters, B Totterdill, *FIDIC User's Guide a Partical Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014) 263

⁶⁴ *Lubenham Fidelities and Investment Co Ltd v South Pembrokeshire District Council* (1986) 33 B.L.R. 39

⁶⁵ I Wallace, *Hudson's Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995) 1022-1023

Direct Damages for Breach of Contract

On the other hand, *FIDIC* has included the expression in the employer's risk events for the contractor's entitlement to recover the cost incurred or ought to be incurred. For instance, *Sub-Clause 1.9 [Delayed Drawings or Instructions]*⁶⁶ has referred to the incurred "Cost" due to the engineer's failure to issue drawings or instruction on a timely manner. *FIDIC* has exhaustively detailed the contractor's entitlement as "*all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges*"⁶⁷. Thus, the contractor shall be entitled to *EOT* for the breach of contract which is related to late instruction and drawings issuance event and also to reimburse the financing charges as a natural result of the breach in the first limb of *Hadley v Baxendale* rule.

⁶⁶ *FIDIC* (Red Book 1999) Sub-Clause 1.9 states that "The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable [...]. If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price"

⁶⁷ *FIDIC* (Red Book 1999) Sub-Clause 1.1.4.3 states that "Cost means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit"

CHAPTER 3: OVERHEADS

3.1) Introduction

A) Overview

The *Overheads* or in other term has been referred to as *Management Charges* are commonly claimed by the contractor as head of prolongation cost claim. It is more suitable and also preferable to contractually pre-agree the mechanism of quantifying the overheads under the contract terms⁶⁸. On the other hand, the damages for breach of contract are regularly quantified based on the actual loss of the aggrieved party.

B) Types of Overheads

The overheads are not limited to the *on-site* direct expenses, but also include the project's *off-site* indirect expenses. The contractor recoups the overheads expenses related to the project through preliminaries or in any other mechanism such as the specific percentage in the bill of quantity rates⁶⁹. Therefore, the bill rates which contains the overheads have to be treated with special caution as the additional works are evaluated based on the bill rates that may by the overheads claim be mistakenly repaid⁷⁰.

If the contractual provision that initiated the entitlement for *EOT* is silent on the remedies of the overheads and not influenced by exclusive clause then the contractor can claim for overheads prolongation cost as damages for the breach of contract. In opposite, the contract provision may either expressly include or also exclude the overheads claim for the cost incurred or ought to be incurred in association with the entitlement for *EOT* claim.⁷¹

The *off-site* cost which is not related to time such as insurances and bonds are also easy to quantify. However, the time related *off-site* cost which will be incurred anyhow with or without the *EOT* such as head-office's consumable items, head-office operation cost and also

⁶⁸ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) page 138

⁶⁹ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 174-175

⁷⁰ F Mastrandrea, 'The Evaluation of Preliminaries (or Site Overheads) in Construction Prolongation Claims' (2009) ICLR 438

⁷¹ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 175-178

the head-office staff involvement at specific site, are all complicated and difficult to prove and quantify.⁷²

Types of Formulas and Uses

The essential reasons to decline the usage of the formulas are not only the uncertainty of the head-office overheads percentage out-come but also the wrong application of the formulas. Indeed, the contractor may claim the head-office overheads for *loss of opportunity* or *extra cost* claim under the contract. The method for applying the head-office claim with the formula plays a significant role to reject or accept the claim.⁷³

Type of Formulas

A) Hudson's Formula:

The formula was first initiated in the construction law text book "*Hudson's Building and Engineering Contracts*"⁷⁴; the application of the formula is by multiplying the tender's percentage for overheads contribution with the period of delay and the contract sum per the contract period⁷⁵. The other way to present the formula is as follows,

$$\frac{\% \text{ of Head office overhead}}{100} \times \frac{\text{Contract Sum}}{\text{Contract Period}} \times \text{Period of delay}$$

B) Emden's Formula:

The formula was first initiated in the construction law text book "*Emden's Building Contracts and Practice*"; the formula is an enhancement and continuity to the Hudson's formula, the application of the formula is same as Hudson's formula but the "% of Head office overheads" are not extracted from the tender rates, it equivalent to

⁷² R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 174 & F Mastrandrea, 'The Evaluation of Preliminaries (or Site Overheads) in Construction Prolongation Claims' (2009) ICLR 434

⁷³ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 139

⁷⁴ I Wallace, *Hudson's Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995)

⁷⁵ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 127 & F Mastrandrea, 'The Evaluation of Contractor's Overheads Claim in Construction' (2010) ICLR 314-318

overheads total cost per the actual turnover⁷⁶. The other way to present the formula is as follows,

$$\frac{\text{Overheads total cost}}{\text{Actual Turnover}} \times \frac{\text{Contract Sum}}{\text{Contract Period}} \times \text{Period of delay}$$

C) Eichleay's Formula:

The formula was first initiated in American's appeal case for *Eichleay Corporation*⁷⁷; the formula differs from the previous formulas as it depends on daily rates as follows.⁷⁸

$$\begin{aligned} & \frac{\text{Contract Bills}}{\text{Total contractor bills for contract period}} \times \text{Total HO overheads for contract period} = \text{Allowance overhead} \\ & \frac{\text{Allocable overhead}}{\text{Days of performance}} = \text{Daily contract HO overhead, Daily contract HO overhead} \times \text{Days of compensable delay} \\ & = \text{Amount of recovery} \end{aligned}$$

From the above, the writer concludes that the formulas in general or any quantification mechanism for the overheads includes various assumptions and constraints in relation to the resource allocation and the general construction environment. Indeed, the formulas have not considered the contractor's ability to arrange for out-source work-force other than the current available resources and also has denied the contractor's ability to relocate the ideal resources at the current delayed or suspended projects into another running projects for the contractor. On the other hand, the overall construction atmosphere has been considered as healthy as possible, without considering any market reversals or slowdowns.

Therefore, it's more appropriate for the parties to pre-agree the overheads quantification method that ensures the contractor's fair remedies for the compensable delay. Indeed, that should be allocated with caution in order not to duplicate the contract's bill rates or to over evaluate the contractor's remedies.

⁷⁶ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 127-128 & F Mastrandrea, 'The Evaluation of Contractor's Overheads Claim in Construction' (2010) ICLR 314-318

⁷⁷ *Eichleay Corporation, ASBCA 5183, 60-2- BCA (CCH) 2688 (1960)*

⁷⁸ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 159

3.2) Overheads

The contractor's claim can be made by the referral to the terms under the contract or as damages for breach of contract. Either scenario, the overheads will be claimed for *loss of opportunity* or claim for *extra cost*. In general, standard contracts do not specifically differentiate between both types of the overheads claim but however has left the choice to the contractor to choose.

3.2.1) Loss of Opportunity

Prove the Loss of Opportunity for the Head-office Overheads Claim

The loss of opportunity or in other words "*Unabsorbed*" overheads are the loss of making use of the overheads at another secured project due to the contractor's delay in the current project, subsequently the loss of contribution of head-office overheads has to be recovered by the current delayed project.⁷⁹

The contractor's ability to prove the loss of opportunity differs based on the company size. A small construction companies are more likely to be able to prove that the delay in a specific project has played a significant role not to be engaged in another secured project especially when the company's strategy is to carry-out one project at the time⁸⁰.

Meanwhile, the larger size companies are unlikely to prove the causal link between the delays of the current project with the loss of opportunity of another secured project. Indeed, the more confident contractors are more likely to use another projects work-force or to secure specialist sub-contractors for the works as nowadays common trend and practice, the court decision for "*Kansas City Bridge*"⁸¹ demonstrate the same conclusion. On the other hand, the initial stage for the lifecycle of any project is mostly calling for underground trades rather than the trades that the current delayed project demand such as the finishes or electromechanical work-forces⁸². In "*Amec Building Ltd*

⁷⁹ K Pickavance, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010)1178

⁸⁰ *J F Finnegan Ltd v Sheffield City Council* (1988) 43 BLR 124

⁸¹ *Kansas City Bridge Co v Kansas City Structure Sheet Co* (1980) SW 2nd 370 (Mo), & also *FJ Finnegan v Sheffield City Council* (1988) 43 BLR 124

⁸² D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 150

*v Cadmus Investment Co. Ltd*⁸³ the contractor failed to prove the loss of opportunity as the contractor's company size demonstrate that the contractor had the ability to carry-with another project without being affected by the current engaged project delays.⁸⁴

In view of the above, the contractual entitlement to claim for head-office overheads does not relieve the contractor from his responsibility to prove the causal link between the delay in the current project and the loss of head-office overheads contribution at another project. Indeed, the contractor has to record all engaged tenders and their probability to obtain but for the contractor's excusable delay in the current project, the contractor has declined.

In general, the contractor can recover the shortage of the contractor's own work-force and their involvement at the current delayed project by hiring specialist sub-contractors. However, the cost of subcontracting the works will have a negative influence at the contractor's bid price. Subsequently, the contractor's quote will be dramatically increased in comparison with the contractor's own work-force cost. Therefore, the contractor may not be in a position to obtain another project.

Thus, the loss of opportunity to contribute the head-office overheads claim will be successfully granted. Definitely, the loss of opportunity claim is not theoretical assumption but however the contractor has to defend his claim from all mitigation scenarios that have to be implemented by the contractor otherwise the courts will consider the head-office overheads shall be anyhow incurred.

Quantification of the Loss of Opportunity for the Head-office Overheads Claim by using Formulas

The contractor in the proceedings may argue that he had lost the opportunity to make use of the overheads at another secured project due to the contractor's delay in the current project, which is simply can be said that is the most accepted scenario to begin with in order to claim for head-office overheads. Once the contractor has proved the loss of opportunity then despite the theoretically of the formulas; the courts are more

⁸³ *Amec Building Ltd v Cadmus Investment Co. Ltd* [1997] 51 ConLR 105

⁸⁴ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 155

likely to accept the formula's percentage for overheads contribution. In the same regard, *R. Kallipetis* has defined loss of opportunity on "*Amec Building Ltd v Cadmus Investment Co. Ltd*"⁸⁵ and stated that "[...] in my view, that the contractor places some evidence before the court that there was other work available which, but for the delay, he would have secured, but which, in fact, he did not secure because the delay; thus, he is able to demonstrate that he would have recouped his overheads from those other contracts and thus, is entitled to an extra payment in respect of any delay period awarded in the instant contract"⁸⁶.

Thus, applying the formulas or any other reasonable quantification measures to calculate the loss of the head-office overheads contribution requires the contractor to produce solid evidence that the loss of opportunity to make use of overheads at another secured project was resulted from the delay in the current project⁸⁷. In "*Ellis-Don*"⁸⁸ case, the Canadian court has accepted the application of the formulas in the case where the claim has been applied as loss of opportunity and the plaintiff has proved that the delay in the current project was the reason to loss the head-office overheads contribution from another secured project⁸⁹. In further case, the court "*Allied Maples Group*"⁹⁰ has allowed the using of the formula to evaluate the loss of head-office contribution. Nevertheless, the court had reduced the estimation of the formula's contribution percentage to reflect the more accurate and realistic contribution.⁹¹

Nevertheless, in rare occasions, whenever the construction industries can be somehow called to be in the peak growth then the requirements to prove the loss of opportunity is not required anymore since the construction environment at that stage allows the contractor to secure any project. In "*St Modwen Development*"⁹² the use of formula was accepted without the needs to prove the loss of opportunity⁹³. The court of appeal decision to accept the entitlement not for the formal but for the loss of opportunity

⁸⁵ *Amec Building Ltd v Cadmus Investment Co. Ltd* [1997] 51 ConLR 105

⁸⁶ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 130

⁸⁷ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 140

⁸⁸ *Ellis-Don Ltd v Parking Authority of Toronto* (1987) 28 Build LR 98

⁸⁹ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 140

⁹⁰ *Allied Maples Group Ltd v Simmons & Simmons* (1996) 46 Con LR 134

⁹¹ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 152

⁹² *St Modwen Developments Ltd v Bowmer and Kirkland Ltd* (1996) 14 CLD-02-04

⁹³ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 129-130

entitlement without proving the loss of contribution with another secured project is unusual and mostly will not be repeated⁹⁴.

In view of the above, the formulas are more likely to be useful in the case where the contractor's records are not sufficient to demonstrate the contractor's actual loss and willing to avoid proving the actual loss. Nevertheless, the large construction companies are expected to facilitate such records. Thus, the pre-agreement to use the formulas and the method of claim plays a significant role to reject or accept the contractor's claim for overheads. On the other hand, the contractor may lose entitlement for head-office overheads for non-availability of the opportunity or the delay beyond the completion has been mitigated and recovered by the contractor's acceleration measures. In those circumstances, the contractor may claim for acceleration cost.

The formulas do not prove the contractor's entitlement for overhead's claim; the formulas are only useful when the loss of opportunity is proved and the actual loss is hard to be recognized and estimated.

3.2.2) Extra Cost Claim (Wasted Management Time and On-site Overheads)

Prove of *Extra Cost* for the Wasted Management Time Claim

The principle of *extra cost* has turned the head-office overheads and *on-site* claims to different aspect, the contractor herein do not claim for head-office contribution for loss of opportunity at another secured project but however has focused on claiming the actual incurred loss for the additional time spent by the contractor's management to resolve the current project issues and to resolve the employer's breaches. In addition, the contractor claims for the additional incurred cost for the work forces at the period which exceeds the contract completion date.⁹⁵ Thus, the actual loss has to be supported with the contractor's records and not to be merely assumed or theoretical.⁹⁶

⁹⁴ K Pickavance, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010) 1185

⁹⁵ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 139

⁹⁶ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 151 & S Carmichael and M Murray, 'Record Keeping for Contemporaneous Delay Analysis: A Model for Effective Event Management' (2006) 24 Construction Management and Economics (CME) 1011-1012.

Therefore, the claim for extra cost is reasonably adequate to be used whenever the actual loss is identified. Therefore, the formulas outcomes are not credible to be considered as actual loss for its mere theoretical usage. In fact, the identification of the *on-site* actual loss is easier to be identified than the wasted management time at the site. Therefore, the contractor has to update the employer with the daily work-forces available at the site since the employer's silence can be interpreted as deemed acceptance for the available work-forces and head-office involvement.

Quantification of the Extra Cost for the Wasted Management Time Claim by using Formulas

The principle of the *extra cost* has restricted the contractor to only prove the actual incurred loss instead of allowing for formulas or mere evaluation to the loss. In the “*Amec Building Ltd v Cadmus Investment Co. Ltd*”⁹⁷ case noted above the court defined the extra cost as “*it is the contractor to demonstrate, in respect of individuals whose time is claimed, that they spent extra time allocated to particular contract. This proof must include the keeping of some form of record that the time was excessive, and that their attention was diverted in such a way that loss was incurred*”⁹⁸

Thus, applying the formulas or any other reasonable quantification measures for the contractor's extra cost for the managerial spent time and the *on-site* costs are not accepted practice. Therefore, the contractor has to keep all records for the managerial time spent at the current project in order to grant the recovery for the extra cost. In the *Tate & Lyle*⁹⁹ case, the court has declined the broad usage of the formulas as to claim for extra cost to the wasted management time. Besides that, the court has concluded that the remedies for extra cost should not be awarded in formulas where the percentage of contribution in the head-office overheads is purely speculation and the contractor has to specifically quantify the actual loss that has been incurred.¹⁰⁰

Furthermore, Forbes J has concluded at the same case that it is obvious and factual that the extra managerial time has been expended and it is also hard to be quantified.

⁹⁷ *Amec Building Ltd v Cadmus Investment Co. Ltd* [1997] 51 ConLR 105

⁹⁸ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 150

⁹⁹ *Tate and Lyle Food and Distribution Ltd v Greater London Council* [1982] 1 WLR 149 at 152

¹⁰⁰ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 153-154

However, records have to be available to support the claim for extra cost¹⁰¹. In further case, “*Alfred McAlpine Homes North Ltd*”¹⁰² the court has commented on the application of formulas in the claim for *on-site* extra cost and concluded that the loss is subject to be proved by the factual incurred loss¹⁰³.

Thus, the *extra cost* claim has to be not theoretical but merely defined with the actual loss for wasted management time overheads and *on-site* additional cost. Meanwhile, the loss of opportunity has to be proved as a fact at the first place. Secondly, if there is no other mechanism available to evaluate the loss of overheads in the contract, the courts have the discretion to rely on the formulas or any other identification methods to evaluate the loss of overheads contribution.

To conclude, the contractor has to claim for loss of opportunity whenever the delay in the current project has affected the contractor’s opportunity to be engaged in other project. At the same time, the contractor’s records for the actual loss are also not available. Subsequently, the formulas are allowed to be used to quantify the approximate loss. Therefore, the formulas have not been used as an evidence for the contractor’s entitlement but however they have been dealt as fundamental bases for the courts to evaluate the contractor’s loss only. On the other hand, the contractor’s ability to prove the actual loss shall relieve the contractor from proving the loss of another project; subsequently using of the formulas will not be required.

Meanwhile, the company’s capabilities and level of profession plays significant role in the loss of opportunity claim, unlike the extra cost claim that irrelevant to the company’s profession is relying on the actual wasted management time expended and *on-site* additional cost in the site.

3.3) Breach of Contract

The contract provisions may not include all contractual remedies in the contract. Thus, the contractor may claim for damages in the breach of contract. The direct cost and expenses

¹⁰¹ R Wilmot-Smith, *Wilmot-Smith on Construction Contracts* (3rd edn Oxford, Oxford 2014) 387

¹⁰² *Alfred McAlpine Homes North Ltd v Property and Land Contractors Ltd* (1995) 76 BLR 65

¹⁰³ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 177

paid by the contractor as consequence for the delay are relatively arise naturally in the breach of contract and thus the contractor can claim for the damages on the first limb of *Hadley v Baxendale*. Nevertheless, the contractor has to have all supporting records that prove the contractor's actual expenses and cost since, the formulas are not credible for calculating the contractor's expenses.¹⁰⁴

Meanwhile, the contractor's loss of income can be claimed either by the first or by the second limb of *Hadley v Baxendale*. Indeed, the causal link between the delay and the loss of income has to be initiated. The contracted parties should be aware at the time of making the contract that the delay in the current project may constitute loss of income in another project, otherwise the contractor's application can be collided with the remoteness principle in accordance with the second limb of *Hadley v Baxendale*. On the other hand, the loss of income may flow naturally within the first limb of recovery rule.¹⁰⁵

In general, the contractor direct cost and expenses are more likely to be recoverable, in the event when the loss of income is more than the contractor's expenses then the contractor may prefer to claim the loss of income subject to prove the foreseeability and causal link between the current project delay and the subsequent project.

3.4) *FIDIC* (Red Book 1999) Perspective

The first approach that the contractor has to follow is to claim for overheads by the recovery term under the contract; the lack of express provision will not deny the contractor's entitlement to damages for the breach of contract. The standard forms of contracts including *FIDIC* are designed to agree the damages by an express provision rather than being claimed as consequence to the breach.

Not all *FIDIC*'s provisions are expressly recovers the contractor's overheads. Therefore, *FIDIC* has provided the contractor with sufficient flexibility to recover the non-included scenarios for the breach of contract damages by the “otherwise” term at the *Sub-Clause*

¹⁰⁴ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 150

¹⁰⁵ P Davenport, H Durham, *Construction Claims* (3rd edn The Federation Press, Sydney 2013) 150

20.1[Contractor's Claim]¹⁰⁶. Without a doubt, the “otherwise” scenarios are very generic term and have to fulfil the requirements of *Hadley v Baxendale* in order to be granted. Thus, it is more practical as a first step to aim for claiming by the terms under the contract, or else the “otherwise” reasons have to be claimed as breach of contract.

FIDIC has differentiated between the *EOT* claim under Sub-Clause 8.4 [Extension of Time for Completion]¹⁰⁷ and the cost associated with it. The contractor entitlement for *EOT* does not automatically provide the contractor with the associated cost. The contractor has to claim for the associated cost in accordance with the cost allowance made at the sub-clause that initiated the *EOT*.

FIDIC has expressly allowed for the overheads in the Sub-Clause 1.1.4.3 [Cost]¹⁰⁸ for the off-site and on-site including the head-office overheads, as an example, Sub-Clause 1.9 [Delayed Drawings or instruction]¹⁰⁹ has provided the contractor with the contractual right to recover the overheads associated with the *EOT*. Nevertheless, the contractor has to follow the contractual procedure and the agreed pre-conditions in order to claim for the associated cost, the non-compliance with the procedure will totally deny the contractor's entitlement or else, the contractor may claim for damages as breach of contract.

Sub-clause 20.1 has also allowed the contractor to claim for any events that they are not fully described by the contract condition as governed by the “otherwise” claim in connection with the contract. The contractor has to follow the contract pre-condition procedure, the “otherwise” should include the events that they are not within the exclusion clause if available and not under the contract.

¹⁰⁶ *FIDIC* (Red Book 1999) Sub-Clause 20.1 states that “If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, [...]”

¹⁰⁷ *FIDIC* (Red Book 1999) Sub-Clause 8.4 states that “The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes: [...]. If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time”

¹⁰⁸ *FIDIC* (Red Book 1999) Sub-Clause 1.1.4.3 states that “Cost means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit”

¹⁰⁹ *FIDIC* (Red Book 1999) Sub-Clause 1.9 states that “The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and details of the nature and amount of the delay or disruption likely to be suffered if it is late. [...], (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price”

The contractor claim for unforeseen physical conditions may award the contractor for *EOT* but however the contractor's entitlement for head-office overheads are not mentioned in the sub-clause, thus the contractor can claim for the overheads as damages for breach of contract under *Hadley v. Baxendale* rule.

In view of the above, *FIDIC* has referred to the contractor's entitlement for the cost of the overheads at certain events. Definitely, *FIDIC* was confident that the causal link between the entitlement for *EOT* and the incurred cost of overheads are secured. Thus, the contractor has to quantify the actual loss. The quantification mechanism has not been identified by the *FIDIC*; the contract parties are free to agree the suitable mechanism.

In general, the *on-site* overheads are easy to identify, the contractor has to keep the engineer informed about all available records related to the employer's delay event otherwise the engineer may deny the accuracy of the contractor's records. On the other hand, the *off-site* overheads are mostly does not include records or either can be monitored by the engineer. The contractor has no choice but to prove the loss of opportunity for another secured project. Subsequently, the loss of contribution can be proportionally determined with the head-office running cost.

CHAPTER 4: LOSS OF PROFIT

4.1) Introduction

The contractor as well as the employer may claim for loss of profit by different mechanisms.¹¹⁰ The loss of profit is another head of claim that the contractor would claim as prolongation cost, the contractor's profit as a result of justified cause of delay and disruption can be either claimed for the loss of earning at the current engaged contract or loss of opportunity at another secured contract. Julian B. has defined the loss of profit as "*Damages may be recoverable by a person [...] has missed out, or is likely to have missed out, on the opportunity of making a profit*"¹¹¹. In general, other than loss of opportunity scenario, the contractor may not be able to recover the loss of profit¹¹².

In fact, the loss of opportunity as previously discussed forms the bases for the over-heads claim is almost the same principle on the loss of profit claim, for the same reasons O'Leary J has described the relation as "*If [C] is entitled to damages for loss of income to cover head-office overheads, why should he not be entitled to damages for loss of income that would result in normal profit?*"¹¹³. Indeed, the basis of overheads has been discussed in chapter three. Notwithstanding this, there are fundamental differences between both types of claims. The loss of opportunity is an important factor for a claim for loss of profit however the loss of profit is not a default entitlement for the contractor's delays and disruptions.¹¹⁴

4.2) Loss of Profit Under Term of the Contract

Proof of the Loss of Profit

The claim for loss of profit and over-heads coincides with the peak growth of the construction industry. In fact, the court in the case of "*Whittall Builders v Chester-le-*

¹¹⁰ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 171-172

¹¹¹ J Bailey, *Construction Law* (Routledge CPS, London 2011) 974

¹¹² A. Haidar, *Global Claims in Construction* (Springer, London 2011) 136 & T Cunningham, 'Contractor's Claims for loss and Expensive under the Principle 'Traditional' Forms of Irish Building Contract' (2014) Dublin Institute of Technology 18

¹¹³ K Pickavance, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010) 1174

¹¹⁴ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 160-161 & F Mastrandrea, 'The Evaluation of Plant Claims in Construction' (2011) ICLR 320-322.

*Street*¹¹⁵ has accepted the claimant argument that it is reasonably sufficient to assume the ability to get hold of profitable project.¹¹⁶

The loss of opportunity can be claimed for over-heads contribution at another secured project despite the profitability factor of that project. Meanwhile, the claim for loss of profit has to be reasonably related to the profitability of that opportunity. In other words, the contractor has to prove not only the employer's breach of contract but also has to prove that the employer's breach has prevented him from earning income or likely to earn income from the opportunity which the contractor would earn if the breach did not happen¹¹⁷. Indeed, the contractor's determination and quantification of loss are relatively not easy to prove and quantify; chapter three has described the method of evaluation.

In addition, the contractor may by the balance of probability prove that he would be of capable to get other contract but for the other delay did not, that shall suffice to be adequate base for the loss of profit claim, the same demonstrated in the case of "*Capital Electric Co. v. United States*"¹¹⁸ and "*Sellars v Adelaide Petroleum NL*"^{119, 120}.

To conclude, the contractor has to keep all records and evidence that prove the contractor's involvement at all tenders and opportunities which have been declined or ought to be awarded as result of current engaged project delays. Also, the loss of profit basis are generally not complicated, the contractor has to demonstrate the availability of sufficient demand for construction at the market as well as the ability for being involved in other project is appropriate enough to shape a claim for loss of profit.

Quantification of Loss of profit

When the liability is recognized, the quantum of loss has to be defined. The courts may accept various methods that quantify the amount of damage.¹²¹ The Courts may rely on the previous yearly turnover as the contractor's profit fluctuate from time to time, the contractor's previous yearly profit turnover is the key reference to evaluate the proportion

¹¹⁵ *Whittall Builders Co Ltd v Chester-le-Street DC* (1987) 40 BLR 82. 179

¹¹⁶ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 133

¹¹⁷ A. Haidar, *Global Claims in Construction* (Springer, London 2011) 136

¹¹⁸ *Capital Electric Company v. United States* (Appeal No. 88/965,7.2.84) 729 F.2d 743 (1984)

¹¹⁹ *Sellars v Adelaide Petroleum NL* (1992) 179 CLR 332 at 355

¹²⁰ R Thomas, *Construction Contract Claims* (2nd edn Palgrave, London 2001) 132

¹²¹ R. Chshman, J. Carter, P. Gorman, D. Coppi, *Proving and Pricing Construction Claims* (3rd end Aspen, New York 2001) 384-402

of the loss of profit since the value of profit are not certain in a specific project, Salmon LJ in the case of *Peak Construction (Liverpool)*¹²² has stated that “a judge might think it useful to have an analysis of yearly turnover from [...] he would be helped in forming an assessment of any loss of profit sustained by the plaintiffs”^{123 124}.

In addition, in “*Castle Construction v Fekala*”¹²⁵ case, the court has confirmed on the general principle that the contractor’s position has to be not better than what he would be in, if the breach has not occurred¹²⁶.

Also, the courts may rely on the contractor’s amount of profit in the appendix to tender as reference to the loss of profit for the other project. In other words, the loss of profit has to be approximately similar to the amount included in the tender¹²⁷. However, it’s not always the case; the profit has to be reasonable and justifiable to the courts and the law in practice¹²⁸.

In addition, the well-known formulas that have been described in chapter three can also be used with the same principle to quantify the loss of profit¹²⁹. However, sufficient substantiation is still required prior relying to any formula¹³⁰; at least the contractor has to demonstrate in accordance with the balance of probabilities that he has lost an opportunity¹³¹.

Notwithstanding, the courts have to consider the contractor’s profit reimbursed by the additional varied works. As such, the contractor may recover a proportion of reasonable certain profit.¹³²

In view of the above, the adopted method to quantify the loss of profit has not taken into consideration the period of the additional time required to complete the project as well as

¹²² *Peak Construction (Liverpool) Ltd v McKinney Foundations Ltd* (1970) 1 BLR 114

¹²³ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 162

¹²⁴ J Bailey, *Construction Law* (Routledge CPS, London 2011) 872-873

¹²⁵ *Castle Constructions Pty Ltd v Fekala Pty Ltd* [2006] NSWCA 133 at [24]

¹²⁶ J Bailey, *Construction Law* (Routledge CPS, London 2011) 975

¹²⁷ L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 216

¹²⁸ A. Jaeger, G. Hok, *FIDIC-A Guide for Practitioners* (Springer, New York 2010) 386

¹²⁹ W. Hughes, R. Champion, J. Murdoch, *Construction Contracts Law and Management* (5th edn Routledge, London 2015) 262

¹³⁰ *Lobster Group Ltd v Heidelberg Graphic Equipment Ltd* [2009] EWHC 1919 (TCC) at [206]

¹³¹ J Bailey, *Construction Law* (Routledge CPS, London 2011) 975

¹³² R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 171

the company's situation after the completion of the current engaged project. The contractor may secure more profitable project subsequent to the completion of the current delayed project, in which, as such the contractor shall recover the assumed loss in the profit. Meanwhile, the claim expert has to consider the deduction of the profit awarded through the additional works in order not to duplicate the contractor's recovery.

4.3) Breach of Contract

The loss of profit is not limited to an express provision in the Contract, but also can be claimed as damage for breach of contract¹³³. The recovery of loss of profit damage has not been specified to a certain limb in accordance with *Hadley v Baxendale* rule¹³⁴.

The terms of contract have defined the scenarios in which the contractor can obtain additional time for completion, but however; not all scenarios permit the contractor for loss of profit¹³⁵. Indeed, the profit which can be reasonably earned by the contractor in the normal circumstances is recoverable as general damage for breach of contract; the first limb of *Hadley v Baxendale* represents that situation.

Meanwhile, the allowance for special damages for exceptional loss is subject to remoteness principle under the second limb of *Hadley v Baxendale* as demonstrated by the case of "*Lewis Jorge v Pomona*"¹³⁶. Therefore, the contractor has to demonstrate the causal link between the delay and loss of profit, and both are reasonable to incur as a consequences of breach of contract.¹³⁷

In view of the above, the loss of profit associated with the prolongation cost is not recoverable unless the contract provides otherwise. In this case, the contractor has to prove that he has lost an opportunity for reasons related to the current project delays.

Otherwise, it's hard to prove the foreseeability of the loss of profit at the second limb of *Hadley v Baxendale*. Therefore, the contractor is usually not entitled for indirect loss for loss of profit unless and until the loss is within the contemplation of the parties. Indeed, the

¹³³ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 160-161

¹³⁴ J Bailey, *Construction Law* (Routledge CPS, London 2011) 976

¹³⁵ R Haar, C Haar, *Remedies in Construction Contracts* (Informa, London 2010) 171-172

¹³⁶ *Lewis Jorge Construction Management, Inc v Pomona Unified School District* (2004) 34 Cal.4th 960

¹³⁷ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 160-161

parties shall include the foreseeable loss in the contract. Therefore, the indirect loss of profit is usually not recoverable. On the other hand, the direct loss has to be reasonably foreseeable to the parties, for the amount of loss or reasoning subject to be prevented from preforming the contract.

In practice, the contract administrator usually excludes the indirect damages from the damage recovery in the contract. Therefore, the losses of the contract parties are not recoverable under the second limb of *Hadley v Baxandal* rule.

4.4) *FIDIC* (Red Book 1999) Perspective

FIDIC has clearly defined the delay events that entitle the contractor to claim for loss of profit. *FIDIC* has differentiated between the incurred expenditure and the profit by intentionally separating the “reasonable profit” entitlement from the definition of the “Cost”.

The loss of profit liability has been restricted by the *FIDIC* within Sub-Clause 17.6 [*Limitation of Liability*]¹³⁸ to govern the losses which are naturally flow from the breach of contract only. Subsequently, the definition for “Cost” and “reasonable profit” has to be read in conjunction with the Sub-Clause 17.6. Indeed, Sub-Clause 17.6 does not permit the contractor to recover the indirect loss that falls within the second limb of *Hadley v Baxendale*. Thus, the term “reasonable profit” includes only the direct but however not the indirect loss of profit.¹³⁹

In fact, *FIDIC* has realized the insurance companies regular practice, the insurance policy usually exclude the indirect and consequential loss. Thus, the parties are only liable for certain type of loss other than the excluded losses. Also, *FIDIC* has limited each party liability to the other by the amount stated in the particular conditions, if not available, will be equivalent to the contract amount. Thus, the insurance companies are more likely to be

¹³⁸ *FIDIC* (Red Book 1999) Sub-Clause 17.6 states that “Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than under Sub-Clause 16.4 [Payment on Termination] and Sub-Clause 17.1 [Indemnities]”

¹³⁹ A. Jaeger, G. Hok, *FIDIC-A Guide for Practitioners* (Springer, New York 2010) 385-386

certain on the maximum amount of liability which shall be reflected in the insurance policy.¹⁴⁰

FIDIC has not only restricted the indirect loss claim, but also has suggested to limit the “reasonable profit” to 5% of the contractor’s claim for “Cost”. Therefore, the contractor’s profit amount is not necessary the contract’s profit margin within the contract. Indeed, *FIDIC* “reasonable profit” defined as 5% of the contractor’s claim for “Cost”.¹⁴¹

On the other hand, *FIDIC* has differentiated between the uncontrolled delays events from the employer’s risk events. Indeed, *FIDIC* has balanced the risk of uncontrolled delay events between the employer and the contractor, as such; the contractor will grant *EOT* for completion without being entitled to claim for loss of profit. Indeed, unforeseen physical condition, fossils and delay caused by authorities are adequate example for the events that do not constitute loss of profit but however include terms to recover the contractor’s expenses¹⁴². Therefore, the contractor has to segregate the excusable events to the extent of the type of permitted loss that allowed to be claimed¹⁴³.

¹⁴⁰ N. Bunni, *The FIDIC Forms of Contract* (3rd edn Blackwell, Oxford 2005) 532

¹⁴¹ International Federation of Consulting Engineers, *FIDIC Contracts Guide* (FIDIC, 2000) 53-54

¹⁴² L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 215-216

¹⁴³ J Bailey, *Construction Law* (Routledge CPS, London 2011) 171

CHAPTER 5: COST OF CLAIM PREPARATION

5.1) Introduction

Currently, the contractors more often rely on external claim consultant to prepare more comprehensive detailed report for the *EOT* claim and prolongation cost. Indeed, the project complexity and the contract requirements play significant role into the contractor's submission. Accordingly, considerable fees and cost are anticipated to be incurred by the contractor to satisfy the contract requirements for the claim submission.¹⁴⁴

In general, the cost of claim preparation is an inseparable part of the overheads claim. Therefore, the contractor's claim for the cost of claim preparation for the external consultant is usually irrecoverable¹⁴⁵. However, many factors can overrule the general principle.

5.2) Proof and quantify the Cost of Claim Preparation

The contractor is not obliged to provide the engineer and the employer with detailed analysis of the contractor's entitlement and the cost associated with the *EOT* other than what is required in the contract. Thus, the incurred cost for making the claim as well as the cost of reviewing the claim are not recoverable¹⁴⁶. However, whenever the case requires an additional substantiation than the regular and practice, then additional managerial time or external consultant involvement is required, accordingly the additional incurred cost shall be reimbursable in accordance with "*James Longley v South West Regional Health*"¹⁴⁷ case.¹⁴⁸

The protocol of "*Society of Construction Law*" (2002)¹⁴⁹ has dealt with the claim preparation cost issues and concluded that the contractor will not recover the additional cost incurred to prepare the contractor's claim until and unless the contract administrator

¹⁴⁴ W. Hughes, R. Champion, J. Murdoch, *Construction Contracts Law and Management* (5th edn Routledge, London 2015) 265

¹⁴⁵ A. Haidar, *Global Claims in Construction* (Springer, London 2011) 136

¹⁴⁶ W. Hughes, R. Champion, J. Murdoch, *Construction Contracts Law and Management* (5th edn Routledge, London 2015) 265

¹⁴⁷ *James Longley and Co Ltd v South West Regional Health Authority* [1983] 25 BLR 56

¹⁴⁸ R. Knowles, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012) 203-204

¹⁴⁹ The Society of Construction Law Delay and Disruption Protocol (2002)

has unreasonably dealt with the claim. Subsequently, the contractor can claim for claim preparation cost recovery.¹⁵⁰

In view of the above, the cost of producing a claim is not recoverable especially when the contractor is merely acting in accordance with the contract requirements. Therefore, the contractor requires an express contract provision to be entitled to recover the incurred cost. However, the requests for additional substantiation by the employer beyond the contract requirements and common practice shall be the basis for the contractor's entitlement to recover the cost of further preparation, either for managerial time or for external consultant. Nevertheless, the contractor will not recover the additional cost incurred due to the contractor's resubmission of a poor presented claim. The contractor will be liable to satisfy the contract requirements to the extent of the engineer and practice requirements.

5.3) FIDIC (Red Book 1999) Perspective

FIDIC has provided the contractor with fair mechanism to claim for the additional incurred cost for each delay event. Each delay event requires the submission of the particular in accordance with Sub-Clause 20.1 [*Contractor's Claims*]¹⁵¹ within 42 days after the contractor being aware or ought to be aware of the event. The Contractor submission should be fully detailed and includes all substantiation that supports the contractor's entitlement for *EOT* and the associated cost. Also, the contractor has to submit interim for the engineer's review at specified time intervals.¹⁵²

Thus, the contractor is obliged in accordance with *FIDIC* to prepare and submit a full detailed claim for the engineer review and approval. Therefore, the cost of claim preparation is not recoverable; the contractor is liable for the cost to a certain extent.

¹⁵⁰ SCL has stated that "The Contractor should not be entitled to additional costs for the preparation of the information, unless it can show that it has been put to additional cost as a result of the unreasonable actions or inactions of the CA in dealing with the Contractor's claim. Similarly, unreasonable actions or inactions by the Contractor in prosecuting its claim should not entitle the Employer to recover its costs"

¹⁵¹ *FIDIC* (Red Book 1999) Sub-Clause 20.1 states that "Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect: [...]"

¹⁵² B Barr, L Grutters, B Totterdill, *FIDIC User's Guide a Partial Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014) 265

However, *FIDIC* has not expressly disallowed the contractor from reimbursement the additional cost incurred to prepare the claim. Indeed, some of the *FIDIC* terms provide the contractor with reasonable entitlement to claim for the additional cost associated with the claim preparation.

FIDIC's Sub-Clause 20.1 [*Contractor's Claims*] facilitates the contractor's ability to raise a claim as stated for "*any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract*"¹⁵³. Accordingly, the contractor may claim the cost of the claim preparation by either under the term of contract or in connection with the contract.

5.3.1) Under the term of Contract

The employer's delay events include particular right for the contractor to claim for any "*Cost*" incurred or ought to be incurred as a result of the delay event. As stated above, the contractor is responsible for the cost of claim preparation. However, the contractor's liability is limited to the reasonability of the engineer requirements and quantum of the event works.

Reasonable Particular

At the this situation, the contractor is required to submit to the engineer the full detailed particulars, the submitted particular has to fulfil the contract and engineer requirements, *FIDIC* has not specified other than the contemporary records, the engineer requirements. Thus, the engineer requirements have to be reasonable to be addressed. Indeed, *FIDIC* has confirmed the definition of the full detailed particular as to be "*and such further particulars as the Engineer may reasonably require*". Therefore, any additional requirements that cause additional cost can be interpreted as unreasonable shall be treated as recoverable incurred cost.

Quantum of Works

In addition, *FIDIC* has limited the definition of "*Cost*" to reasonable incurred or ought to be incurred; accordingly the contractor has to prove that the additional cost is

¹⁵³ *FIDIC* (Red Book 1999) Sub-Clause 20.1

reasonable to be incurred beyond the contractor's contractual liability to prepare for claim.

For instant, the contractor may receive revised drawings in accordance with Sub-Clause 1.9 [*Delayed Drawings or Instructions*] that affects the contractor's progress at the site and has influence on the contractor's critical path. Indeed, the changes may constitute major impact on the design; the contractor may require more staff and resources to deal with the change evaluation beyond the tender obligation for staff involvement. Thus, the contractor claim for claim preparation cost either for external consultant or off-site contractor's team is reasonable and may be recovered by the contractor.¹⁵⁴

In view of the above, the contractor is liable for the cost of claim preparation unless and until the contractor can prove that the engineer has exceeded the common reasonable level of details that he requires to determine the contractor's entitlement in accordance with Sub-Clause 3.5 [*Determinations*]¹⁵⁵. Also, the quantum of works required to evaluate the employer's delay event may exceed the contractor's on-site ability to manage. Accordingly, the contractor may recover the cost of claim preparation. Nevertheless, the contractor is still obliged to prove the engineer's unreasonable requirements and the major changes by the employer by at least expert witness to support the contractor's claim for additional incurred cost.

5.3.2) In Connection with the Contract

Extra works

The contractor has to differentiate between the contractual variation and extra works, the variation is a contractual right by the employer can be requested to the contractor though the engineer at any time prior the issuance of Taking-Over Certificate, the contractor is bound to execute the variation until and unless the contractor cant fulfil

¹⁵⁴ K. Lam, 'Claim Preparation Costs: Are They Recoverable?' (2012) issue 15 ADR Partnership 2

¹⁵⁵ FIDIC (Red Book 1999) Sub-Clause 3.5 states that "*Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances [...]*"

the variation requirements in accordance with Sub-Clause 13.1 [*Right to Vary*]¹⁵⁶. On the other hand, the contractor is not obliged to execute the extra works especially that the contractor's execution of the works shall not by itself entitle him to additional payment¹⁵⁷.

First of all, the contractor has to understand the difference between the extra work and additional work. Indeed, the additional works are not required but however necessary to be done. Meanwhile, the extra work is works that is out of scope and they are not required at all¹⁵⁸. Therefore, the contractor has to agree with the engineer for all rate prices for all items which may not be in accordance with the original contract. As such, the claim for cost of the claim preparation for additional and/ or extra work is recoverable.

¹⁵⁶ FIDIC (Red Book 1999) Sub-Clause 13.1 states that "*Variations may be initiated by the Engineer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that the Contractor cannot readily obtain the Goods required for the Variation. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction [...]*"

¹⁵⁷ J Glover, S Hughes, C Thomas, *Understanding the New FIDIC Red Book a Clause By Clause Commentary* (2nd Sweet & Maxwell, London 2006) 262-263

¹⁵⁸ G. Kelley, *Construction Law: An Introduction For Engineers, Architects and Contractors* (John Wiley & Sons, New Jersey 2013)163

CHAPTER 6: DISRUPTION

6.1) Introduction

A) Overview

The employer's delay event may reduce the contractor actual rate of performance, the rate of performance can be either affected by binding the contractor to change the intended sequence of works or changing the contractor's work methodology, such scenario has been defined as *Disruption* or the other term is "*Loss of Productivity*".

In Practice, the disruption claim is not really a claim for prolongation. The disruption claim is basically an individual claim but however can be also claimed within the prolongation cost. Indeed, the disruption claim entitlement reasons are merely same as for prolongation claim. Therefore, the contractor has to recognize the situation when the disruption claim can be included with or without the prolongation claim.¹⁵⁹

The *SCL Protocol* has defined the disruption as "*Disturbance, hindrance or interruption of the Contractor's normal work progress, resulting in lower efficiency or lower productivity than would otherwise be achieved*"¹⁶⁰. Also, has clearly separated the concept of delay from the disruption by using different terms to distinguish between them as "Delay to Progress" which shall represent the disruption event not on the critical path¹⁶¹ and "Delay to Completion" which shall represent the delay event¹⁶² on the critical path¹⁶³.

¹⁵⁹ L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 218

¹⁶⁰ The Society of Construction Law Delay and Disruption Protocol October 2002 reprinted 2004, 9

¹⁶¹ L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 218 has described the disruption on the non-critical path as the delay in non-critical activities will not affect the contractor's completion date but however shall consume the schedule's total float. The employer's delay events may delay the non-critical activities. As such, the performance time shall be longer than the time that should be performed in accordance with tender. At the same time, the subsequent activities shall be affected and they will be delayed beyond the planned commencement date. For instance, the completion date is not affected by the employer's delay event. However, the actual performance is less than the works assumed to be performed at the same duration. In other words, the disrupted activities will cost more to perform than the ideal cost

¹⁶² J Glover, S Hughes, C Thomas, *Understanding the New FIDIC Red Book a Clause By Clause Commentary* (2nd Sweet & Maxwell, London 2006) 196

¹⁶³ L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 218 has described the disruption on the critical path as the consumption of the total float of the disrupted activities may lead to convert the non-critical activities to critical. Subsequently, the completion date will be delayed. For that reason, the contractor will claim not only for prolongation cost but also for the loss of productivity

In view of the above, the contractor has to differentiate the difference between the employer's delay events that may entitle him for prolongation and disruption cost or disruption cost only. Indeed, the influence of disruption doctrine will not for certain cause delay to the project completion date. Thus, the cost of performance will increase as a result of the contractor's inefficiency to perform not for the delay in the completion date. Therefore, the reduction of the contractor's rate of progress will require sufficient increment to the physical resources available on the site and with them also increase the hours of working. On the other hand, the disruption cost will be claimed with the prolongation cost for the delays that affect the completion date. Indeed, those delays are on the Contractor's schedule critical path.

6.2) Proof of the Claim

The accuracy of records plays significant role in the success of the disruption claim; the contractor's record should include at least the rate of performance, employed resources and increased cost before and after the employer's delay event¹⁶⁴. *The SCL Protocol* has suggested the same in determining the contractor's entitlement by stating that “*The starting point for any disruption analysis is to understand what work was carried out, when it was carried out and what resources were used. For this reason, record keeping is just as important for disruption analysis as it is for delay analysis*”¹⁶⁵.

However, disruption claim is still difficult to prove, not because the courts are not willing to give entitlement but because the usual inaccurate records. In addition, the decision of “*Wharf Properties v Eric Cumine*”¹⁶⁶ introduces the importance of the causal link between the cause and effect.¹⁶⁷

In view of the above, the disruption claim is not an easy task to undertake and prove, the contractor has to be confident that he can fulfil the basic requirements and prove his entitlement for the cost of disruption in order to proceed with the claim quantification. Indeed, the sufficient records that precisely detail the incurred cost for the disrupted activities

¹⁶⁴ L. Klee, *International Construction Contract Law* (Wiley Blackwell, London 2015) 218

¹⁶⁵ The Society of Construction Law Delay and Disruption Protocol October 2002 reprinted 2004, 32

¹⁶⁶ *Wharf Properties v Eric Cumine Associates* (1991) 52 BLR 1

¹⁶⁷ R. Knowles, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012) 225-226

are required. At the same time, the causal relation between the employer's delay event and disrupted activities has to be established.

The contractor has to be proactive by notifying the engineer and making him aware with all relevant data related to the disruption cost. The lack of the Engineer's involvement may reduce the contractor's chance to prove the loss, especially when the employer may not mitigate the impact of the delay as a result for lack of notification.

6.3) Quantification of Claim

In the past, the contractors have claimed for disruption cost by relying on the tender resource costs for the disrupted activities against the actual resource costs. Indeed, the contractor's rate of performance included in the tender is the first reference to compare with but however these rates are not for certain will be achieved in the normal circumstances¹⁶⁸. This traditional approach faded with the time as per the court decision in *London Borough v. Stanley Hugh*¹⁶⁹ case¹⁷⁰. On the other hand, the industrial standard for the rate of performance is in somehow accepted if it is compared with the actual performance. Therefore, it was more appropriate to introduce reliable method to evaluate the disruption cost¹⁷¹ such as *Measured Mile*¹⁷² which has been supported by the classic English case "*Whittall Builders v Chester-le Street*"¹⁷³ in accordance with *R. Knowles*¹⁷⁴.

In view of the above, the ability to use the *Measured Miles* approach is limited to identify a free period that has performed the same task without being disruption. Indeed, that may not be easy task to identify since the contractor's learning curve change for each period of time; the contractor performance shall increase gradually till reach the maximum rate to perform. The contractor has to ensure when the event has occurred and its relation with the undisturbed area, taking into consideration the contractor's delay events.

¹⁶⁸ R. Knowles, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012) 227

¹⁶⁹ *London Borough of Merton v Stanley Hugh Leach Ltd* (1985) 32 BLR 51

¹⁷⁰ D Chappel, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005) 138

¹⁷¹ R. Knowles, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012) 225-227

¹⁷² Measure Mile is one of the methods that evaluate the contractor's disruption cost, the general principle of the "*Measured Mile*" is to compare the contractor's outcome in the disrupted period with the same outcome for the undisrupted period and then to apply the percentage with the resource cost. The Measured Mile approach has been recommended by the *SCL Protocol*. *SCL* stated that "*The most appropriate way to establish disruption is to apply technique known as the Measured Mile*"

¹⁷³ *Whittall Builders Co Ltd v Chester-le-Street District Council* (1985) 11 Con LR 40

¹⁷⁴ R. Knowles, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012) 225-227

6.4) *FIDIC* (Red Book 1999) Perspective

Very often, the practitioners are exchanging how they use the delay and disruption words for the same meaning. In fact, each term represents different aspect in the contractor's claim. *FIDIC* has recognized those differences and has allowed for *EOT* entitlement whenever the meaning is clear and related to the delay in the completion date¹⁷⁵.

FIDIC has included the scenarios in which the contractor can claim contractually for the disruption cost. Mostly, Sub-clause 1.9 [Delayed Drawings or Instructions] and Sub-clause 8.5 [*Delay Caused by Authorities*] are the common sub-clause that provides the contractors entitlement for pursuing a disruption claim.

In both Sub-clauses, *FIDIC* clearly requires accurate records that support the contractor's claim for disruption. Therefore, the contractor is required to issue notice of delay whenever the contractor expects the work may be delayed or the works may be disrupted. On the other hand, a claim for disruption costs is not allowed for all delay events that is included in the contracts terms and conditions. Accordingly, *FIDIC* has allocated the burden of proof for the breach of contract in accordance with *Hadley v Baxendale* rules. Indeed, the argument of float ownership will float to the surface prior dealing with the case¹⁷⁶.

¹⁷⁵ J Glover, S Hughes, C Thomas, *Understanding the New FIDIC Red Book a Clause By Clause Commentary* (2nd Sweet & Maxwell, London 2006) 196

¹⁷⁶ The ownership of float is different subject and will not be part of this dissertation.

CHAPTER 7: UAE PERSPECTIVE

7.1) Introduction

A) Overview

In general, UAE Law recognizes and accepts the various types of damages that may arise from the execution of a construction contract. The writer seeks to discuss those damages and their contractual liability with any pre-condition requirements that is required for a successful claim for prolongation costs¹⁷⁷.

B) UAE's Source for Obligations and the Basis to Claim

Contract

Contract is the first source of obligation under the UAE's Civil Transactions Code¹⁷⁸ (*CTC*), *Article 124*¹⁷⁹. Thus, the contractual liability is the mere obligation that the parties conclude from the breach of any construction contract.

The court of cassation in Dubai has settled the three mandatory elements that give rise to contractual liability; fault of delay, not carrying out the specified or implied contractual obligations and the occurrence of the loss and the causal link between the loss and the fault¹⁸⁰.

Furthermore, the burden of proof for the contractual liability in accordance with the *Article 113*¹⁸¹ of the *CTC* is placed on the claimant's responsibility, at the Dubai's

¹⁷⁷ K Nassif, H Al-Mulla, 'Damages and contracts in the UAE' <http://www.inhouselawyer.co.uk/index.php/united-arab-emirates/7893-damages-and-contracts-in-the-uae.html> accessed 11 November 2015

¹⁷⁸ Federal Law No. 5 of 1985 concerning the issuance of the civil transactions law of the United Arab Emirates

¹⁷⁹ Article 124 of the Civil Transaction Code states that "*Personal obligations or rights shall arise out of dispositions, legal events and the law, and the sources of obligations shall be as follows: 1. contracts; 2. unilateral acts; 3. acts causing harm (torts); 4. acts conferring a benefit; and 5. the law*"

¹⁸⁰ The Dubai Court of Cassation held, in the case 37 Judicial year 2004 (220), that "*The contractual obligation is established with the availability of three fault elements: the failure of either contracting party to fulfil any obligation resulting from the contract or the delay in fulfilment of such obligation and the establishment of damage and the establishment of causal relation between the fault and the damage*"

¹⁸¹ Article 113 of the Civil Transaction Code states that "*The burden lies on an obligee to prove his right, and on an obligor to refute it*"

cassation court and also refers to the claimant's responsibility to fulfil the pre-condition requirements for the contractual liability¹⁸².

Tort

On the other hand, the Law of Tort places further obligations under *Article 124* from the CTC, which is not specifically created from the breach of construction contract. The Tort liability maybe initiated from the breach of duty under the law. Therefore, the contractor may pursue the claim from the employer for the breach as being under the contract or tortious act. However, not all breaches can be treated as tortious act. The contractor has to choose the head of claim basis prior the submission of the claim.¹⁸³

Despite tort-feasor intention, the wrongful act in accordance with *Article 282*¹⁸⁴ of the CTC has to unconditionally make the harm good as being the direct result of the wrongful act. However, if the harm is the consequence of the act then the act has to be wrongfully or deliberately occurred. Indeed, the causal link has to be initiated between the wrongful act and the harm, referred to in *Article 283*¹⁸⁵ of the CTC¹⁸⁶; Dubai court of cassation in the case No. 188/2009 which has interpreted the law perspective¹⁸⁷.

¹⁸² The Dubai Court of Cassation held, in the case 37 Judicial year 2004 (220), that "*the creditor shall be responsible to prove the debtor's fault by the non-fulfillment of the obligations resulting from the contract and establishment of the incurred damage. The causal relation is supposed to exist as the debtor cannot deny his obligation unless he proves that the damage is due to a force majeure, a sudden act, a creditor's fault or a third party's act*"

¹⁸³ B McKenzie, H Al-Mulla, 'United Arab Emirates: Tortious Liability In The UAE – An Unexplored Trail To Justice' [2010] <http://www.mondaq.com/x/80358/trials+appeals+compensation/Tortious+Liability+In+The+UAE+An+Unexplored+Trail+To+Justice.html> accessed 10 October 2015.

¹⁸⁴ Article 282 of the Civil Transaction Code states that "*Any harm done to another shall render the actor, even though not a person of discretion, liable to make good the harm*"

¹⁸⁵ Article 283 of the Civil Transaction Code states that "*(1) Harm may be direct or consequential (2) If the harm is direct, it must unconditionally be made good, and if it is consequential there must be a wrongful or deliberate element and the act must have led to the damage*"

¹⁸⁶ B McKenzie, H Al-Mulla, 'United Arab Emirates: Tortious Liability in the UAE – An Unexplored Trail to Justice' [2010] <http://www.mondaq.com/x/80358/trials+appeals+compensation/Tortious+Liability+In+The+UAE+An+Unexplored+Trail+To+Justice.html> accessed 10 October 2015.

¹⁸⁷ The Dubai Court of Cassation held, in the case 188 Judicial year 2009, that "*It is well settled in the precedents of this court that under articles 282 and 283 of the Civil Code, any act resulting in harm to another, whether done directly or indirectly, will render the doer thereof liable to make good. The harm may be direct, if there is a link between the harmful act and the occurrence of the harm, such as the link between the instrument of destruction and the property destroyed. The same applies to any act done by the wrongdoer without any other act intervening, from which the damage results. The damage will be by indirect causation if there intervenes between it and the doer thereof another act out of which the damage arises, or something that is a cause of the damage, but if the original act did not of itself cause the damage save indirectly. If damage occurs by direct causation then the doer must unconditionally make it good, whether the doer is acting wrongfully or not. If the act is by indirect causation, then it is a condition of the doer being liable for it that he should have been guilty of a wrongdoing, that is to say that he should not have had the right to do the act out of which the damage arose, or he did it deliberately or with the intention of causing damage as opposed to the intention of doing the act, and the act must have led causatively to the damage. If two acts combine to cause damage, one of them direct and the other indirect, then the basic rule is that compensation will be payable by the doer of the direct act. It is a matter of fact for the discretion of the trial court whether an act was the direct or indirect cause of the harm*".

C) Freedom of Contract

In general, UAE Law adopts the freedom of contract principle for the construction contracts. However, UAE Law includes implied and explicit legislative terms such as *Article 296*¹⁸⁸ of *CTC* that can't be excluded or limited by any exclusion clauses. However, the contract parties are free to agree in accordance with *Article 287*¹⁸⁹ of the *CTC* to allocate specific events to the contractor's liabilities, such as in the underground condition liability. Subsequently, the contractor's argument herein that the cause of harm event is not foreseeable is not valid. Notwithstanding, the parties agreement are still restricted to the law and custom in accordance with *Article 246*^{190 191}.

In view of the above, the claimant whom in our article is the contractor has the duty not only to prove the employer's responsibility for the delay but also has to prove the causal link between employer's fault and the incurred damages.

Without a doubt, the claim for the breach under the contract is more reliable than the claim under the law of Tort. The claim under the contract ensures the foreseeability of the effect for the breach. Meanwhile, the Tort claim is usually applied whenever the contract is not concluded. However, the courts will accept the contractor's claim in Tort despite the contract being in existence. Actually, the contract may not include all breaches scenarios; the Tort claim will cover the liability gaps in the contract.

The contractor may choose to claim for damages irrelevant to its source of obligation. The contractor should not restrict himself to specific source of obligations until and unless the court requests the contractor to specify the source. Commonly, the courts do not reject this kind of approach.

¹⁸⁸ Article 296 of the Civil Transaction Code states that "*Any condition purporting to provide exemption from liability for a harmful act shall be void*"

¹⁸⁹ Article 287 of the Civil Transaction Code states that "*If a person proves that the loss arose out of an extraneous cause in which he played no part such as a natural disaster, unavoidable accident, force majeure, act of a third party, or act of the person suffering loss, he shall not be bound to make it good in the absence of a legal provision or agreement to the contrary*"

¹⁹⁰ Article 246 of the Civil Transaction Code states that "*The contract shall not be restricted to an obligation upon the contracting party to do that which is (expressly) contained in it, but shall also embrace that which is appurtenant to it by virtue of the law, custom, and the nature of the transaction*"

¹⁹¹ M Nelson, W Marshall, H Turner, A Kirk, S Khan, K Hacking, P Masons, 'Construction Arbitration' [2015] <http://globalarbitrationreview.com/know-how/topics/73/jurisdictions/33/Specialised-masters-degrees-international-arbitration-multiplying-dizzying-rate-ndash-useful-when-comes-finding-job-private-practice-Sebastian-Perry-reports.html> accessed 28 October 2015

On the other hand, the courts will enforce the contract terms for allocation of specific risks, whether the allocated risk's provision is fair to the contractor or not. Indeed, the wording of contract has to be clear and unambiguous in order to be enforced. However, the contract's provision has to not to be intended to cause harm to the contractor, eventually the court will exclude the harmful act provision from the contractor's liabilities.

D) Experts and Expert's Reports¹⁹²

UAE's judges are experts in law interpretation and facts finding. However, some specific technical and scientific issues are not within the facts that the judge can sufficiently evaluate¹⁹³. Therefore, UAE's judges usually assign experts for the construction disputes to assist the court with their adequate skills and knowledge in accordance with *Law of Experts*¹⁹⁴, referred to in *Article 69*¹⁹⁵ of the *LOE*¹⁹⁶.¹⁹⁷

It is still not a mandatory obligation for the courts to appoint experts; however the court will have the discretion to decide based on the facts available and the technicality of the dispute¹⁹⁸. Indeed, the evaluation of the *EOT* and the concurrent delays are beyond the court technical knowledge. Therefore, the courts usually require the expert opinion to determine the factuality of the cause and their effect of the disputed delay event.

The UAE Law has also not explicitly addressed the concurrent delay principle in the legal system. Indeed, the English Law perspective for the concurrent delay as stated in the *SCL* may contradict with the UAE Law perspective¹⁹⁹. However, UAE Law *Articles 290*²⁰⁰ and

¹⁹² For more information about the court procedure and the experts duties, refer to E Al-Tamimi, *Practical Guide to Litigation and Arbitration in the United Arab Emirates* (Kluwer Law International, Great Britain 2003) 56-58

¹⁹³ E Al-Tamimi, *Practical Guide to Litigation and Arbitration in the United Arab Emirates* (Kluwer Law International, Great Britain 2003) 58

¹⁹⁴ Federal Law No . 7 of 2012, issued on 10/10/2012 AD

¹⁹⁵ Article 69 of the Law of Evidence Transaction Codes states that "*The Court may, when necessary, rule to appoint one or more experts from amongst the employees of the State or those listed in the register of experts, in order to seek their opinion to give insight on the issues on which judgment is to be made in the case. The Court shall determine the deposit which must be lodged with the Treasury Department of the Court on account of the expenses of the expert and his fees, the party who shall be required to lodge this deposit, and the time by which it must be lodged; also the amount which may be drawn by the expert towards his expenses*"

¹⁹⁶ Federal Law No. (10) of 1992 concerning Law of Evidence in Civil & Commercial Transactions of the United Arab Emirates.

¹⁹⁷ D O'Leary, 'The use of experts in construction disputes in the UAE' <http://www.tamimi.com/en/magazine/law-update/section-8/may-7/the-use-of-experts-in-construction-disputes-in-the-uae-2.html> accessed 02 November 2015

¹⁹⁸ The Dubai Court of Cassation held, in the case 171 Judicial year 2008, that "*An application by a party for the appointment of an expert in the action is not a right vested in him that the court must grant in every case. It may reject such application if it finds in the papers in the case sufficient material to enable it to form a view and pass judgment thereon case*"

¹⁹⁹ D O'Leary, 'Dealing with Concurrency in Construction Delay Claims' <http://www.tamimi.com/en/magazine/law-update/section-8/april-7/dealing-with-concurrency-in-construction-delay-claims.html> accessed 18 November 2015

291²⁰¹ have demonstrated the law approach to apportion and distribute the liability of the delay between the defaulted parties²⁰².

Nevertheless, the courts in accordance with *Article 90*²⁰³ of the *LOE* are still not obliged to follow the expert report as whole or part of it; the court may reach to different conclusions. Indeed, the courts are required to support their judgment with the legal basis, especially for issues related to the technical matters.²⁰⁴

To conclude, the experts for the construction disputes are the key reference for the courts decisions. Indeed, the expert report results are not mandatory to be considered by the court notwithstanding; the courts do mostly follow the expert's report opinion. As such, the courts' source of facts will be found within the expert report but however, reflecting the facts of the law's articles is merely within the judge's sole discretion.

Therefore, upon the disputant beneficial results they may reject or accept the expert's report for either partial or full report results. Accordingly, the court may return the report to the expert for further justification. However, the last decision will be made by the court. The courts are free subject to the expert's technical conclusion to either to take into consideration or not the expert's report.

An *Expert/ Arbitrator* has been consulted and interviewed by the writer for the purpose of this dissertation and had discussed about the experts role and courts overview on the

²⁰⁰ Article 290 of the Civil Transaction Code states that "*It shall be permissible for the judge to reduce the level by which an act has to be made good or to order that it need not be made good if the person suffering harm participated by his own act in bringing about or aggravating the damage*"

²⁰¹ Article 291 of the Civil Transaction Code states that "*If a number of persons are responsible for a harmful act, each of them shall be liable in proportion to his share in it, and the judge may make an order against them in equal shares or by way of joint or several liability*"

²⁰² M Nelson, W Marshall, H Turner, A Kirk, S Khan, K Hacking, P Masons, 'Construction Arbitration' [2015] <http://globalarbitrationreview.com/know-how/topics/73/jurisdictions/33/Specialised-masters-degrees-international-arbitration-multiplying-dizzying-rate-and-useful-when-comes-finding-job-private-practice-Sebastian-Perry-reports.html> accessed 28 October 2015

²⁰³ Article 90 of the Law of Evidence Transaction Codes states that "(1) The opinion of the expert shall not bind the Court. (2) If the Court rules in contradiction to the opinion of the expert, it shall show in its ruling the reasons which led it not to accept this opinion in full or in part"

²⁰⁴ The Dubai Court of Cassation held, in the case 41 Judicial year 2007, that "*It is settled law that the trial court may adopt the report of the expert in whole or in part and may reject part of it, or it may not adopt it at all, as the court must pass judgment only on the basis of the matters by which it is satisfied. The court can also reach a result different from the opinion of the expert, on the grounds that his opinion is just one of the elements of proof subject to the discretion of the court. The court may uphold all or some or none of what is in his report, but a condition of so doing is that the matter on which the court makes a pronouncement of opinion must not be a purely technical matter, and it must state the evidence and grounds on which it bases its judgment, and its reasons in this regard must be sound, and have their proven basis in the papers, and be sufficient to support the judgment*"

prolongation cost claims with their general principle for how to prove and quantify the contractor's prolongation claim in their reports.

The *Expert/ Arbitrator* has been asked about the frequency that the disputant parties and the courts accept the expert report and *Expert/ Arbitrator* has advised as follows:

"The disputant parties always object to the expert report results albeit the report's accuracy and fairness, the objection is mainly from the losing party but however, sometimes the winning party also objects the report's result in order to request for more entitlement. On the other hand, the court mostly but not always accept the expert's report, the approximate court's acceptance of the reports handled by him is 75% to 85% of the cases".

E) The Effect of Article 390 of the CTC

The agreed damages provision in the construction contract attempts to recover the damages for the beneficial party subsequent to the delay in the contract completion date with the adequate amount of money. Indeed, the agreed damages provision will alter the liability to prove the damages to the contractor rather than from the employer. The contractor herein may defend his position by either proves that the three mandatory elements for the contractual liability mentioned above have not been fulfilled. In other words, the contractor is entitled to *EOT* and the delay events that have delayed the project completion date are attributed to the employer or the contractor's delay has not caused any loss or damages to the employer.

Also, the defendant may rely on *Article 390*²⁰⁵ that supports the UAE's legal position which quantifies the damages as being equivalent to the actual loss and not just mere

²⁰⁵Article 390 of the Civil Transaction Code states that "(1) The contracting parties may fix the amount of compensation in advance by making a provision therefor in the contract or in a subsequent agreement, subject to the provisions of the law. (2) The judge may in all cases, upon the application of either of the parties, vary such agreement so as to make the compensation equal to the loss, and any agreement to the contrary shall be void"

penalty; refer to the Abu Dhabi Cassation case 941/2003²⁰⁶. If the defence succeeds, the claimant has to prove his loss as general or special damages.²⁰⁷

Accordingly, the agreed damages are made to allocate the liability of prove from the claimant to the defendant. Indeed, the employer is responsible to prove the actual loss but however herein the contractor will be liable to prove by disappearance of the contractual liability elements and vice versa. Thus, the UAE Law has restricted the compensation of the aggrieved party and quantified the loss to the loss occurred actually and to the extent of reasonable amount.

Therefore, the law has provided the court with significant discretion to take priority over the enforcement of contract provision, notwithstanding that the aggrieved party still has an obligation to initiate the decent objection to allow the court to reconsider the compensation. Thus, UAE Law would put the contractor not better but in the same position that he would be if the fault has not occurred.

Proof of the Claim²⁰⁸

*Article 1*²⁰⁹ of the *LOE* and the *CTC's Articles 113*²¹⁰ have both ruled that the claimant – in our case is the contractor – is responsible to facilitate the adequate evidence that proves the employer's liability for the loss²¹¹. Indeed, the employer's contractual liability for the loss initiated by occurrence of the contractor's loss of income or additional

²⁰⁶ The Abu Dhabi Court of Cassation held, in the case 941 Judicial year 2003, that "Article 390 of the Civil Code shows, as has been held by this court, that a stipulation for a penalty clause renders the assessment of harm a matter for the contracting parties, and the obligee does not have to prove it. Rather, the obligor has the burden of proving that it did not take place. There is a presumption that the assessment of compensation agreed is commensurate with the harm suffered by the obligee, and the judge must abide by that clause and give effect to it unless the obligor proves that the agreed compensation is excessive or that the obligee did not suffer any harm at all. All of the above is a matter for a finding of fact by the trial court"

²⁰⁷ J Ede, 'Liquidated Damages' <http://www.tamimi.com/en/magazine/law-update/section-5/january-2/liquidated-damages.html> accessed 17 September 2015

²⁰⁸ For more information about the written evidence and electrical evidence, refer to E Al-Tamimi, *Practical Guide to Litigation and Arbitration in the United Arab Emirates* (Kluwer Law International, Great Britain 2003) 60-65

²⁰⁹ Article 01 of the Law of Evidence Transaction Codes states that "(1) It is the responsibility of the claimant to prove his claim and that of the respondent to refute it [...]".

²¹⁰ Article 113 of the Civil Transaction Code states that "The burden lies on an obligee to prove his right, and on an obligor to refute it"

²¹¹ The Abu Dhabi Court of Cassation held, in the case 15 Judicial year 2003, that "It is settled law that contractual liability does not arise unless the three elements for it are made out, namely default, harm, and the causal relationship between them. Thus, if one of those elements is missing, contractual liability will not arise. The obligee must prove the default of the obligor and the harm suffered by him in accordance with the general rules laid down in article 1 of the Law of Proof. It is a matter of fact within the independent discretion of the trial court whether the harm has been proved".

expenses through the employer's delay event and both are relatively related to each other, refer to *Union Supreme Court Case 731/25*²¹².

The contractor has to submit productive and material evidence that is specifically related to the subject of the claim; *Article 1*²¹³ of the *LOE* has confirmed the need for facts as essential requirements. Accordingly, written evidence is the strongest method for proof which has to be submitted as the head of the evidences to the court, refer to *Article 8*²¹⁴ of the *LOE*.

However, the construction dispute contains more technical facts that exceed the judge capability. Indeed, the judge has to support his decision by the all relevant reasons and facts. Therefore, the judges are prohibited from deciding based on their individual knowledge²¹⁵. Accordingly, UAE judges assign the manner of fact finding to the experts to conclude the technical issue.

Recently, UAE has recognized the electrical transactions via the *Federal Law no. 1/2006*²¹⁶. Thus, the emails have become legally element for proof that could be relied on by the court. However, such evidence is more preferable to be heavily weighted whenever written evidence is not in place.²¹⁷

To conclude, it's not the matter what you know or what you believe, the matter is what you can prove. Definitely, the contractor's evidence has to be related specifically to the subject matter of the claim, the court is not in position to call for evidences but however they have to be offered to the court by both parties.

²¹² The Union Supreme Court held, in the case 731 Judicial year 2005, that "*The effect of article 1 of the Law of Proof, and of articles 113 and 118 of the Civil Code, is that the claimant must prove his claim, and the defendant may refute it. There is a presumption of non-liability, and liability as a supervening condition. Therefore, the burden of proof lies on the person who alleges the contrary of what is apparent, and what is demonstrated by presumption, whether he be the plaintiff or the defendant. If the person alleging the contrary of what is apparent fails to adduce evidence and documents, then he will be regarded as having failed in so proving, and his claim must be dismissed*"

²¹³ Article 01 of the Law of Evidence Transaction Codes states that "[...] (2) *The facts which are to be proved must relate to the claim and material to it and acceptance of them must be permissible. [...]*"

²¹⁴ Article 08 of the Law of Evidence Transaction Codes states that "*A legal document shall be evidence for all matters recorded in it, be they undertaken by the official within the limits of his capacity, or signed before him by the parties concerned, so long as it is not shown to be forged by any of the legally agreed means*"

²¹⁵ Article 01 of the Law of Evidence Transaction Codes states that "[...] (3) *The judge is not permitted to make rulings on the basis of his personal knowledge*"

²¹⁶ Federal Law No (1) of 2006 concerning Electronic Transactions and Commerce

²¹⁷ J Page, M El-Mahdy, 'Electronic evidence in the UAE Courts' <http://www.tamimi.com/en/magazine/law-update/section-6/october-2/electronic-evidence-in-the-uae-courts.html> accessed 15 October 2015

The contractor is legally responsible to prove the contractual liability elements. Accordingly, it is not only a traditional and common head of claims that the contractor can claim as prolongation cost, the contractor has to introduce all the documents which support his claim for entitlement.

The *Expert/ Arbitrator* has been asked about the main elements that the experts are using to determine the cause and effect of the contractor's claim that subsequently leads to prove the contractor's claim and *Expert/ Arbitrator* has advised the following:

"The contractor has to provide all contractual documents, daily reports, monthly reports, notices and correspondence related to the subject of the claim. Then expert will reflect the employer's cause of delay events provided by the contractor in the contractor's program of works to determine the effect. The expert will receive the employer's counter claim and response to the contractor's claim within the allowable time. Subsequently, the expert will evaluate the contractor's claim and the employer's counter claim based on the evidence provided. Indeed, the expert has to not to exceed the assigned mission made by the court. The expert will not accept argument with contractual or legal background".

7.2) Delay Damages in UAE Law

Similar to the English Law, UAE Law has in different aspect recognized the damages for direct loss, consequential loss, loss of opportunity, interest, overheads, claim preparation cost and the loss of profits.

7.2.1) Direct Loss

The direct loss compensation should be made for the least anticipated losses by the parties at the time making the contract; the *CTC*'s explanatory note has highlighted the law perspective as previously described. Indeed, the contract parties have the right to contractually pre-agree the amount of the compensation, otherwise, the courts will rely on *Article 389*²¹⁸ of the *CTC* to assess and quantify the equivalent recovery²¹⁹. The amount

²¹⁸ Article 389 of the Civil Transaction Code states that "If the amount of compensation is not fixed by law or by the contract, the judge shall assess it in an amount equivalent to the damage in fact suffered at the time of the occurrence thereof"

²¹⁹ K Nassif, H Al-Mulla, 'Damages and contracts in the UAE' <http://www.inhouselawyer.co.uk/index.php/united-arab-emirates/7893-damages-and-contracts-in-the-uae.html> accessed 11 November 2015

of compensation has to be quantified based on the actual loss unless the law offers otherwise.

However, there will no concluded debts until and unless the contractor fulfils his contractual or at least the legal responsibility to provide the employer with the sufficient notice for claim, *Article 387*²²⁰ from the *CTC* has referred to the importance of issuance of the notice.

7.2.2) Consequential Loss

The UAE law adopts the consequential loss at the tortious scope of liability. The consequence loss has to reasonably foreseen by the parties at the time of making the contract, otherwise the loss will be merely remote to be considered.

In reality, the expert report will not include or decide the nature of the loss. However, the expert reports may include the analysis of the facts. Indeed, the judge may rely on the expert's report for the cause, effect and the causal link between them but however, the court will have the last word on the contractor's liability for the delay in accordance with the contract and law. The expert report aim is to simplify the technical issues to the judge language. The Judge will interpret the contract and the causal link which accordingly leads to the party's liabilities.

7.2.3) Loss of profits and opportunity

Proof and Quantification of the Claim

Despite the fact that, *Article 292*²²¹ of the *CTC* is related to the tortious liability, Dubai cassation court has accepted the loss of profit term in this article to be treated as contractual liability²²². However, the courts will not award damages for uncertain future

²²⁰ Article 387 of the Civil Transaction Code states that "*Compensation shall not be due until after the obligor has been put on notice, unless there is a contrary provision in the law or in the contract*"

²²¹ Article 292 of the Civil Transaction Code states that "*In all cases the compensation shall be assessed on the basis of the amount of harm suffered by the victim, together with loss of profit, provided that that is a natural result of the harmful act*"

²²² The Dubai Court of Cassation held, in the case 51 Judicial year 2007, that "*In matters of contractual liability, the obligee has the burden of proving default on the part of the obligor in not performing his obligations arising out of the contract, or being in breach in the performance thereof, or making delay therein, and in proving the damage sustained by him as a result thereof. As for the causal relationship, that is presumed to exist upon the proof of default and loss, and the obligee may not evade it save by proof of force majeure or an extraneous cause or default on the part of the obligee or a third party*" and, Abu Dhabi Court of Cassation held, in the case 125 Judicial year 2001, that "*articles 282, 291 and 293 provide that any harm done shall render the doer liable to make good the harm, and that the indemnity shall in all cases be commensurate with the harm suffered and loss of profit,*

loss. The contractor's loss of profit and opportunity has to be supported with not theoretical but reasonable fact finding that makes the loss as good as possible^{223, 224}.

At the same time, UAE Law by *Article 292* of the *CTC* has differentiated between the direct loss and loss of profit. The article concludes that the loss of profit is another word for the consequential loss. Indeed, the compensation has to be quantified in accordance with the amount of harm and the loss of profit, ensuring that the causal link between the harm and the loss²²⁵. Therefore, the law has restricted the contractor from claiming for loss of profit and opportunity and that indeed will be subject to reasonable quantification for the future loss²²⁶.

The *Expert/ Arbitrator* had been asked about the loss of profit and opportunity claim associated with the *EOT* prolongation cost and he advised the following:

"In all cases that I handled either as arbitrator or expert, the final decision that I reached did not include the loss of profit or loss of opportunity. Such claim is hard to be provided or quantify, however if the contractor can prove either of them, the quantification shall be based on the contractor's yearly gross profit trend".

provided that that is a result of the harmful act. Loss of opportunity suffered by the employer in a muqawala contract in the exploitation and enjoyment of his building by unjustified non-performance on the part of the contractor of his obligations under the muqawala contract, or defective execution of the work precluding enjoyment of the land, will be an element of damage in respect of which an indemnity will be payable to the employer, if such opportunity was probable, and he has in fact been deprived of it. The law does not preclude missed earnings being taken into account provided that the aggrieved party had a hope of making such earnings, provided that such hope was based on reasonable causes. It is settled law that the contract is the law of the contracting parties, and the contract binds the parties to it to the matters agreed upon if the contract has been validly made. It is not open to either of the parties unilaterally to set aside or vary the contract, and it is open to the contracting parties to vary the rules of liability in tort within the limits of publ order, and they may agree to increase or decrease such liability"

²²³ The Dubai Court of Cassation held, in the case 171 Judicial year 2008, that "A finding of fact as to the elements of damage sustained by a victim, and an assessment of the amount of compensation to make it good, are matters of fact within the independent jurisdiction of the trial court, provided that there is no provision of law mandating that certain particular criteria should be followed in the quantification"

²²⁴ K Nassif, H Al-Mulla, 'Damages and contracts in the UAE' <http://www.inhouselawyer.co.uk/index.php/united-arab-emirates/7893-damages-and-contracts-in-the-uae.html> accessed 11 November 2015

²²⁵ The Dubai Court of Cassation held, in the case 90 Judicial year 2009, that "Under the provisions of articles 282 and 292 of the Civil Code, compensation is to be assessed in every case according to the amount of loss and damage and loss of profit sustained by the aggrieved. The damage claimed must be the direct result of the default, that has happened or will befall in the future, and the aggrieved has the burden of proving the elements of the damage sustained by him"

²²⁶ The Dubai Court of Cassation held, in the case 93 Judicial year 2009, that "The effect of articles 282, 292, and 293 (1) of the Civil Code is that any harm done to another obliges the doer thereof to make compensation. Compensation will be assessed in accordance with the amount of harm done to the victim, and his loss of profit, provided that that is a natural result of the harmful act, and if it has been established that it has occurred, but there is nothing in the law to prevent calculation for loss of profit that the aggrieved had an expectation of making, provided that such expectation is based on reasonable cause"

7.2.4) Interest

Not all civil law countries have allowed for interest and financing charges in their legal system, Saudi Arabia is a clear example of that prohibition. Therefore, any contractual provisions if they include the interest as the remedy for the contractor's loss in the Saudi's construction contracts will be not enforceable. Nevertheless, UAE Law and namely the *Commercial Transactions Code*²²⁷ (CoTC) has adopted the interest as the remedy for the claimant's loss for the late and the non-payments but however with various restrictions²²⁸.

Prove of the Claim

*Article 89*²²⁹ and *90*²³⁰ of the CoTC has accepted the mere fact that the delay of the debtor to pay the due money shall automatically cause damage to the creditor, the creditor has to prove only the amount of the claim and the same has become due then the creditor will be entitled for compensation²³¹.

Quantification of the Claim

Moreover, the contract parties may agree the percentage of interest in the contract but however the interest rate should not exceed 12% of the yearly sum. On the other hand, the lack of agreement on the interest will not hold the contractor from claiming interest for the delayed payment in accordance with the market rate as per the CoTC's *Article*

²²⁷ Federal Law No. 18 of 1993 on the Commercial Transactions Law of the United Arab Emirates

²²⁸ S Skaik, 'FIDIC Red Book Comes to The Contractor's rescue' <http://www.cmguide.org/archives/1960> accessed 12 November 2015

²²⁹ Article 89 of the Commercial Transaction Code states that "*For the accrual of delay interest, it is not a condition that the creditor proves that he sustained damages as a result of such delay*"

²³⁰ Article 90 of the Commercial Transaction Code states that "*Interests for delay of payment of commercial debts shall accrue from the maturity date of such debts, unless it is otherwise provided for by Law or agreement*"

²³¹ The Abu Dhabi Court of Cassation held, in the case 610 Judicial year 2002, that "*The effect of the provisions of article 88 of the Commercial Code is that in order for interest to be due on a delay made by the debtor in performance of his obligation, the subject matter of the obligation must be a sum of money of an amount that is ascertained at the date of the demand, in the sense that the determination of the amount rests on fixed bases and is not within the discretion of the judge. If the creditor specifies in his statement of claim the amount that he claims, and proves that it is due, then failure by the defendant to pay will of itself be deemed to be a default giving rise on the part of the debtor to pay interest by way of compensation for procrastination and delay, because the legislature presumes that the mere fact of the delay will result in damage being caused to the creditor giving rise to liability to pay compensation, in that he has been deprived of the use of that money, or has lost it, and has been compelled to [take other steps to] deal with that delay in borrowing in order to meet his needs for that amount, and in either case he will have sustained a loss of profit or will have suffered some loss, whereby the law imposes interest as from the date the judicial claim is made*"

76²³², 77²³³ and 88²³⁴. Nevertheless, the non-availability of the market rate will not be also a reason to deny the contractor's right for due payment's interest. For instance, the courts will decide the interest at 9% rate for the annual amount due²³⁵.

Nevertheless, the court may also in unusual circumstances modify the interest rate that has been awarded by the Arbitrator whenever the interest rate can be interpreted as excessive and extremely high²³⁶.

To conclude, the interest is an implied term in the construction contracts. Thus, the parties are not obliged to refer expressly in the contract to the interest in order to reserve a statutory right for remedies for the late payment. However, it is suggested to include an express term for interest remedies either as referral to the law or as contractual term.

The contractor is not required to prove the damages for the late payment; the law presumes that the interest is the mere result for the delay and will be concluded as the reasonable compensation. Therefore, the parties can agree the rate of the interest prior or after the damage occurrence. However, the parties can't agree to exceed the statutory limits but they can agree to exclude the interest.

7.2.5) Overheads

The *Expert/ Arbitrator* has been asked about the cost of overhead associated with the *EOT* and prolongation cost and he advised the following:

²³² Article 76 of the Commercial Transaction Code states that "A creditor is entitled to receive interest on a commercial loan as per the rate of interest stipulated in the contract. If such rate is not stated in the contract, it shall be calculated according to the rate of interest current in the market at the time of dealing, provided that it shall not exceed 12% until full settlement"

²³³ Article 77 of the Commercial Transaction Code states that "Where the contract stipulates the rate of interest and the debtor delays payment, the delay interest shall be calculated on the basis of the agreed rate until full settlement"

²³⁴ Article 88 of the Commercial Transaction Code states that "Where the commercial obligation is a sum of money which was known when the obligation arose and the debtor delays payment thereof, he shall be bound to pay to the creditors as compensation for the delay, the interest fixed in and , unless otherwise agreed"

²³⁵ The Dubai Court of Cassation held, in the case 3 Judicial year 2007, that "Under articles 76, 77, 88 and 90 of the Commercial Code, if the debt the subject matter of the obligation is money of ascertained amount at the time the obligation arose, and the debtor makes delay in paying it, the creditor may claim interest thereon by way of compensation for delay. Such interest will apply as from the date the debt became payable. Interest due on that date will be calculated at the rate agreed in the contract made between the parties, and if the interest rate is not specified in the contract then it will be calculated at the prevailing market rate at the time of the transaction, but provided that it does not exceed 12% per annum until payment is made in full. If the creditor fails to prove that the prevailing market rate at the time the transaction was made was equal to or greater than 12% per annum, then the general rule will apply that interest will be calculated at the rate of 9% per annum as from the date of maturity"

²³⁶ E Al-Tamimi, *Practical Guide to Litigation and Arbitration in the United Arab Emirates* (Kluwer Law International, Great Britain 2003) 161

“Once the cause and effect is finalized and it has been established, the employer is liable for the delay; the contractor is not usually required to prove the actual loss of the overheads. Traditionally, the expert relies on the previous year actual overheads and the delayed site contribution to the overall overheads. Therefore, the quantification of the loss is not related to the actual since it’s hard to be quantified, however the average will be sufficient as reasonable quantum. However, if the reason of the delay is variation, mostly the contractor will receive the overheads based on the BOQ rates. Therefore, further consideration not to double the contractor’s compensation”.

7.2.6) Cost of Claim Preparation

The *Expert/ Arbitrator* has been asked about the cost of claim preparation associated with the *EOT* and prolongation cost and he advised the following:

“The disputed parties are free to out-source their prolongation cost claim to external expert; however, there will be no reason or justifications to accept such claim. Indeed, the claims are common in construction contract. Therefore, contractors have to assume allowance in their tender for any cost associated with the claim. The cost of claim preparation is foreseeable and to remote to the contractor”.

CHAPTER 8: CONCLUSION AND RECOMMENDATION

The contractors are required to ensure that the employers and the engineers have been made aware of all circumstances that give rise to claims, project's resources that they are available on and *off-site* and also their exact allocations. All records and reports have to be submitted in timely manner in accordance with the contract to ensure the engineer's validation as that would likely to reduce the contractor's burdens in proving and justifying claims.

The contractor has to submit delay and disruption notices within the allowable time in the contract and the contractor's potential rights will not be due until the notices are in-place. The contractor has to update the employer for any foreseeable delays and consequences especially when the engineer's acts are generally presumed to be within good faith limits while the employer is deemed not always a professional entity.

The contract administrator has to limit or exclude the liability for the undesired indirect or direct loss by allocating the risks into the contractor's liability. In other words, the contractor has to price for all foreseeable loss scenarios. Meanwhile, the contract should include all well-known loss scenarios or otherwise the work environment would likely be unsuitable for progress and the real focus will be in claims submissions.

The legislation may cover the title of loss but unfortunately not all loss scenarios are embedded in legal systems. Nevertheless, the contractor is responsible to prove the loss that the employer's actions have certainly caused. The contract administrator must not rely on the general law to assess the contractor's claims; the contract has to literally specify all possible claim circumstances.

The contractor has to know that the courts in general will be reasonable in awarding the time related costs. The excessive and unjustified claims may disrupt the call of justice especially when the claims overcome with each other. The court may dismiss a valuable claim for the contractor in order to award another less beneficial claim. The contractor therefore must understand the claims that are accepted by courts and then he must regularly define and

include material heads of claim. Subsequently, the contractor will have upper hand being his claim successful and on the other hand that will reduce the efforts of all parties.

Experts play significant role in the construction industry. In general, the courts rely on experts to determine the cause and effect and causal link between them. Given the complexity of the claim, the contractor must ensure to request the court for experts if the court did not initially call for their attendance.

Once the contractor proves cause and effect, the damage will be quantified based on the records and actual loss. Indeed, the evaluation will be based on material evidences that will be presented in front of the judges/expert for their consideration. The impossibility of exact quantification that surrounds some of the head of claims will not hold the judge/expert to estimate the actual loss. Indeed, the loss of overheads contribution is a clear illustration for lack of actual loss.

FIDIC as the common standard form of contract contains provisions that need to be amended and adjusted to ensure adequate time related cost recovery. Some of its provisions are silent and others do not cover full scope of recovery. The contractor therefore must consider the risk of the *FIDIC* general conditions in their pricing and respective risk allocations.

Finally, the UAE Law has almost adopted the head of claims recovery for the prolongation cost in English Law. Not only that, the requirements for proof and quantification are also much similar to English Law. Indeed, both require the cause and effect occurrence prior to any loss quantification. The contractor will not be entitled for recovery if the employer's delay has not caused actual loss to the contractor.

BIBLIOGRAPHY

Books:

- Al-Tamimi E, *Practical Guide to Litigation and Arbitration in the United Arab Emirates* (Kluwer Law International, Great Britain 2003);
- Bailey J, *Construction Law* (Routledge CPS, London 2011);
- Barr B, Grutters L and Totterdill B, *FIDIC User's Guide a Partical Guide to the Red, Yellow, MDB Harmonised and Subcontract Books* (3rd edn ICE Publishing, London 2014);
- Bunni N, *The FIDIC Forms of Contract* (3rd edn Blackwell, Oxford 2005);
- Chappell D, Marshall D, Powell-Smith V and Cavender S, *Building Contract Dictionary* (3rd edn Blackwell Science, Oxford 2001);
- Chappel D, *Building Contract Claims* (5th edn Wiley-Blackwell, London 2005);
- Chshman R, Carter J, Gorman P and Coppi D, *Proving and Pricing Construction Claims* (3rd end Aspen, New York 2001);
- Davenport P and Durham H, *Construction Claims* (3rd edn The Federation Press, Sydney 2013);
- Glover J, Hughes S and Thomas C, *Understanding the New FIDIC Red Book a Clause By Clause Commentary* (2nd Sweet & Maxwell, London 2006);
- Haar R and Haar C, *Remedies in Construction Contracts* (Informa, London 2010);
- Haidar A, *Global Claims in Construction* (Springer, London 2011);
- Hughes W, Champion R and Murdoch J, *Construction Contracts Law and Management* (5th edn Routledge, London 2015);
- Jaeger A and Hok G, *FIDIC-A Guide for Practitioners* (Springer, New York 2010);
- Klee L, *International Construction Contract Law* (Wiley Blackwell, London 2015);
- Kelley G, *Construction Law: An Introduction For Engineers, Architects and Contractors* (John Wiley & Sons, New Jersey 2013);
- Knowles R, *200 Contractual Problems and their Solutions* (3rd edn Wiley BlackWell, West Sussex 2012);
- Pickavance K, *Delay and Disruption in Construction Contracts* (4th edn Sweet & Maxwell, London 2010);
- Thomas, R *Construction Contract Claims* (2nd edn Palgrave, London 2001);
- Wilmot-Smith R, *Wilmot-Smith on Construction Contracts* (3rd edn Oxford, Oxford 2014);
- Wallace I, *Hudson's Building and Engineering Contracts* (11th edn Sweet & Maxwell, London 1995).

Articles & Journal

- Carmichael, S and Murray, M, 'Record Keeping for Contemporaneous Delay Analysis: A Model for Effective Event Management' (2006) 24 Construction Management and Economics (CME),
- Cunningham, T, 'Contractor's Claims for loss and Expensive under the Principle 'Traditional' Forms of Irish Building Contract' (2014) Dublin Institute of Technology,
- Lam, K, 'Claim Preparation Costs: Are They Recoverable?' (2012) issue 15 ADR Partnership 2,
- Mastrandrea, F, 'The Evaluation of Contractor's Overheads Claim in Construction' (2010) ICLR,
- Mastrandrea, F, 'The Evaluation of Preliminaries (or Site Overheads) in Construction Prolongation Claims' (2009) ICLR,
- Mastrandrea, F, 'The Evaluation of Plant Claims in Construction' (2011) ICLR,
- Zaneldin, E, 'Construction Claims in the United Arab Emirates: Types, Causes, and Frequency' (2005) 2 United Arab Emirates University (UAEU),

Law, Statutes and Standards

- English Law:
 - Late Payment of Commercial Debts (Interest) Act 1998, c.20
 - Unfair Contract Terms Act 1977, c.50
 - Arbitration Act 1996, c.23
- UAE Law:
 - Federal Law No. 5 of 1985 concerning the issuance of the civil transactions law of the United Arab Emirates.
 - Federal Law No . 7 of 2012, issued on 10/10/2012 AD of the United Arab Emirates.
 - Federal Law No. (10) of 1992 concerning Law of Evidence in Civil & Commercial Transactions of the United Arab Emirates.
 - Federal Law No (1) of 2006 concerning Electronic Transactions and Commerce
 - Federal Law No. 18 of 1993 on the Commercial Transactions Law of the United Arab Emirates.
- Standard Contracts:
 - Condition of Contract for Construction "for building and engineering works designed by the employer" Red Book published on 1999.
 - ICE Conditions of Contract, 6th Edition by Institution of Civil Engineers.

➤ Guidance

- The Oxford Standard Citation of Legal Authorities, produced by the School of Law, Social Sciences and Communication and the Department of Learning & Information Services, 2009/10.
- International Federation of Consulting Engineers, FIDIC Contracts Guide (FIDIC, 2000).
- The Society of Construction Law Delay and Disruption Protocol October 2002 reprinted 2004

Case Law

Common Law Cases

- *Hadley v Baxendale* (1854) 156 ER 145
- *The Diamond Trading Company Ltd v Atos Origin IT services UK Ltd* (2010) EWHC 3276 (TCC)
- *Wadsworth v Lydell* [1981] 1 WLR 598
- *Blue Chip Pty Ltd v Concrete Constructions Group Pty Ltd* [1996] 13 BCL 31
- *Jeancharm Ltd v Barnet Football Club Ltd* [2003] EWCA Civ 58
- *Hungerfords v Walker* (1989) 17 CLR 125
- *F.G. Minter v Welsh Health Technical Services Organization* (1980) 13 BLR1.
- *Ress and Kirby Ltd v Swansea City Council* (1985) 30 B.L.R. 1.
- *Sempra Metals Ltd v Inland Revenue Commissioners* [2007] UKHL 34
- *Morgan Grenfell Ltd and Sunderland Borough Council v Seven Seas Dredging Ltd* (1991) 49 B.L.R 31
- *Lubenham Fidelitiles and Investment Co Ltd v South Pembrokeshire District Council* (1986) 33 B.L.R. 39.
- *Eichleay Corporation, ASBCA 5183, 60-2- BCA (CCH) 2688* (1960)
- *J F Finnegan Ltd v Sheffield City Council* (1988) 43 BLR 124
- *Kansas City Bridge Co v Kansas City Structure Sheet Co* (1980) SW 2nd 370
- *Amec Building Ltd v Cadmus Investment Co. Ltd* [1997] 51 ConLR 105
- *Ellis-Don Ltd v Parking Authority of Toronto* (1987) 28 Build LR 98
- *Allied Maples Group Ltd v Simmons & Simmons* (1996) 46 Con LR 134
- *St Modwen Developments Ltd v Bowmer and Kirkland Ltd* (1996) 14 CLD-02-04
- *Tate and Lyle Food and Distribution Ltd v Greater London Council* [1982] 1 WLR 149 at 152
- *Alfred McAlpine Homes North Ltd v Property and Land Contractors Ltd* (1995) 76 BLR 65
- *Whittall Builders Co Ltd v Chester-le-Street DC* (1987) 40 BLR 82. 179
- *Capital Electric Company v. United States* (Appeal No. 88/965,7.2.84) 729 F.2d 743 (1984)
- *Sellars v Adelaide Petroleum NL* (1992) 179 CLR 332 at 355
- *Peak Construction (Liverpool) Ltd v Mckinney Foundations Ltd* (1970) 1 BLR 114.
- *Castle Constructions Pty Ltd v Fekala Pty Ltd* [2006] NSWCA 133 at [24].

- *Lobster Group Ltd v Heidelberg Graphic Equipment Ltd* [2009] EWHC 1919 (TCC) at [206]
- *Lewis Jorge Construction Management, Inc v Pomona Unified School District* (2004) 34 Cal.4th 960.
- *James Longley and Co Ltd v South West Regional Health Authority* [1983] 25 BLR 56.
- *Wharf Properties v Eric Cumine Associates* (1991) 52 BLR 1
- *London Borough of Merton v Stanley Hugh Leach Ltd* (1985) 32 BLR 51.
- *Whittall Builders Co Ltd v Chester-le-Street District Council* (1985) 11 Con LR 40

UAE Cases

- The Dubai Court of Cassation held, in the case 37 Judicial year 2004 (220);
- The Dubai Court of Cassation held, in the case 188 Judicial year 2009;
- The Dubai Court of Cassation held, in the case 171 Judicial year 2008;
- The Dubai Court of Cassation held, in the case 41 Judicial year 2007;
- The Abu Dhabi Court of Cassation held, in the case 941 Judicial year 2003;
- The Abu Dhabi Court of Cassation held, in the case 15 Judicial year 2003;
- The Union Supreme Court held, in the case 731 Judicial year 2005;
- The Dubai Court of Cassation held, in the case 51 Judicial year 2007;
- The Dubai Court of Cassation held, in the case 171 Judicial year 2008;
- The Dubai Court of Cassation held, in the case 90 Judicial year 2009;
- The Dubai Court of Cassation held, in the case 93 Judicial year 2009;
- The Abu Dhabi Court of Cassation held, in the case 610 Judicial year 2002;
- The Dubai Court of Cassation held, in the case 3 Judicial year 2007.

Electrical Resources

- --, 'Commentary on FIDIC IV Clauses' <https://www.scribd.com/doc/13286166/62/CLAUSE-60-Certificates-Payments-of-the-Contractor> accessed 21 November 2015
- K Nassif, H Al-Mulla, 'Damages and contracts in the UAE' <http://www.inhouselawyer.co.uk/index.php/united-arab-emirates/7893-damages-and-contracts-in-the-uae.html> accessed 11 November 2015.
- B McKenzie, H Al-Mulla, 'United Arab Emirates: Tortious Liability In The UAE – An Unexplored Trail To Justice' [2010] <http://www.mondaq.com/x/80358/trials+appeals+compensation/Tortious+Liability+In+The+UAE+An+Unexplored+Trail+To+Justice.html> accessed 10 October 2015.
- M Nelson, W Marshall, H Turner, A Kirk, S Khan, K Hacking, P Masons, 'Construction Arbitration' [2015] <http://globalarbitrationreview.com/know-how/topics/73/jurisdictions/33/Specialised-masters-degrees-international-arbitration-multiplying-dizzying-rate-and-useful-when-comes-finding-job-private-practice-Sebastian-Perry-reports.html> accessed 28 October 2015

- D O'Leary, 'The use of experts in construction disputes in the UAE' <http://www.tamimi.com/en/magazine/law-update/section-8/may-7/the-use-of-experts-in-construction-disputes-in-the-uae-2.html> accessed 02 November 2015
- D O'Leary, 'Dealing with Concurrency in Construction Delay Claims' <http://www.tamimi.com/en/magazine/law-update/section-8/april-7/dealing-with-concurrency-in-construction-delay-claims.html> accessed 18 November 2015
- J Ede, 'Liquidated Damages' <http://www.tamimi.com/en/magazine/law-update/section-5/january-2/liquidated-damages.html> accessed 17 September 2015
- J Page, M El-Mahdy, 'Electronic evidence in the UAE Courts' <http://www.tamimi.com/en/magazine/law-update/section-6/october-2/electronic-evidence-in-the-uae-courts.html> accessed 15 October 2015
- S Skaik, 'FIDIC Red Book Comes to The Contractor's rescue' <http://www.cmguide.org/archives/1960> accessed 12 November 2015