

ARE AUSTRALIAN STANDARD FORMS OF CONSTRUCTION CONTRACT CAPABLE OF DEALING WITH THE ISSUE OF EXTENSIONS OF TIME EFFICIENTLY AND EFFECTIVELY?

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The efficient and effective management of time on complex construction projects (especially when concerned with the development and resolution of extension of time claims) has long been considered a major issue in construction contracts. Recent research has culminated in the production of a new standard form of contract drafted specifically as an attempt to overcome these issues. This research identifies the perceived critical success factors that are recommended to be included in, and addressed by the new standard form of construction contract in an attempt to alleviate these issues, and reviews a selection of Australian standard forms of construction contract for the presence of the perceived critical success factors. A review of current literature was carried out to identify the perceived critical success factors for the effective and efficient management of time with respect to extension of time claims, together with a qualitative analysis of the new standard form of construction contract as verification of the identified critical success factors and their management and application. A comparative analysis was undertaken of the extension of time provisions of a selection of Australian standard forms of construction contract as a means of determining their efficiency and effectiveness for resolving extension of time claims in a modern construction industry. The research identified 69 critical success factors that should be present in the clauses of standard forms of construction contracts to efficiently and effectively enable the resolution of extension of time claims for the benefit of all parties involved. The selected Australian standard forms of construction contract were found to be vague with respect to the content and inclusion of the perceived critical success factors, providing a greater opportunity for an extension of time claim to evolve into a dispute between the contracting parties.

Keywords: claims, conflict, contract law, litigation.

INTRODUCTION

Disputes involving the management of time on construction projects causing delay and cost overruns are considered to be an ubiquitous feature of the industry (Love, Tse *et al.* 2005; Blake Dawson Waldron 2006) that are not unique to Australia, but are also present in other developed economies with adversarial based legal frameworks (Cooperative Research Centre for Construction Innovation 2009).

The costs involved in resolving these disputes are said to be substantial. In Australia it is estimated to be in excess of AU\$7 billion per year (Cooperative Research Centre for Construction Innovation 2009), in the United Kingdom (UK) it estimated to be in

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excess of eight billion pounds per annum (Pickavance 2003), whilst in the United States (US), the cost of construction litigation alone (not including the indirect costs associated with resolving these issues) are estimated to be in excess of US\$5 billion a year (DeSai 1997; Michel 1998).

There has been extensive research carried out to identify and classify the causes of disputes (as summarised in Love, Davis *et al* (2010)) and the processes of avoiding/resolving disputes in general (National Public Works Conference and National Building and Construction Council 1990; Yip and Chan 2004; Brand and Uher 2008; Cooperative Research Centre for Construction Innovation 2009), yet project delay disputes are still prolific and considered to be one of the most expensive and difficult to resolve.

Risk Management

The preferred industry risk management tool relied upon for dealing with the issue is typically the application and adherence to the requirements of the clauses of standard forms of contract, which are drafted with a presumption that delay 'events' will occur, and attempt to provide a mechanism for resolving such issues by including an extension of time clause that allows the employer (or the employer's representative) to extend the project completion date due to the occurrence of certain 'events', to protect the client from the contract becoming 'at large' in accordance with the prevention principle (Pease 2007).

Typically extension of time clauses are drafted in a straight forward manner and enable the contractor to apply (make a 'claim') for an extension of time to the agreed completion date of the project (plus any loss and expense incurred) as a result of the occurrence of an identified 'event'. The provisions of the contract clauses are meant to allocate the risk management/responsibility of the occurrence of such 'events' that may cause project delay in such a way as to ensure the successful, economical, and timely resolution of such issues to the satisfaction of all parties involved.

The identified 'event' has typically been agreed between the parties as an employer risk event, in which the employer accepts the responsibility for ensuring that the event does not occur, thereby, if the event does occur, the contractor will be given the additional equivalent amount of time to complete the project (without incurring liquidated damages), and any possible loss and/or expense incurred as a result of the 'event' causing delay to the project (there are variations to this principle depending upon the drafting of individual contract clauses and the occurrence of 'events' that neither party can control (neutral events)).

If the employer agrees with and accepts the contractors claim, the contractual remedy is undertaken, and the matter is resolved. However, where the employer does not agree with and accept the contractors claim, then, subject to the failure of negotiations between the parties, the matter would be considered to be in dispute.

The disagreement and non-acceptance of the contractors claim for an extension of time is the crux of the growth of the issue into a dispute.

Typically the contractual clauses require the contractor to substantiate the claim. This requires the production and collation of suitable evidence/witnesses/experts (normally undertaken by both parties as a means of substantiating or defeating the claim), often from inadequate and poorly kept and disorganised project records and disbanded project teams, to determine exactly what events took place, when, where, and what their likely or actual consequences to the outcome of the project were.

The compiling of suitable evidence is another element of the issue. The quality and comprehensiveness of construction organisations records and record keeping practices have often been criticised (Wood 1975; Brewer 1993; Kangari 1995; Vidogah and Ndekugri 1998; Chappell, Powell-Smith *et al.* 2005). This is said to be due to the complex nature of the construction process, where “*few events ... occur in a way or at a time they were intended to occur*” (Pickavance 2000), and the fact that “*the construction industry is notorious for not documenting procedures and transactions ... [with] ... most of the information being of a cost accounting nature ... [that] ... does not contain information relating directly to resource usage on scheduled project activities but only indicates apparent fluctuations in the cost of the project*” (Vidogah and Ndekugri 1997). The cost implications due to the time and effort involved in the retrospective identification, collection, validation, and collation of suitable evidence from unsuitable construction project records can be excessive.

The availability of comprehensive project documentation that fully records what events actually took place, when those events occurred, what resources were involved, and what the likely consequences of those events were, would provide the information necessary for the parties to agree on the outcome of those events and hence resolve the issues and minimise the risks of claims escalating into disputes.

Typically standard forms of construction contracts rarely state the type, form, and frequency of the gathering and updating of project records that if carried out would provide suitable evidence to assist in the establishment and quantification of delay 'events', and potentially reduce the number of delay and disruption disputes.

Add to this the growing opinion that the majority of the drafted clauses of current standard forms of construction contracts are no longer representative of, or reflect, the modern processes and technologies that are used (or available to be used) by the modern construction industry (Chartered Institute of Building 2011), increases the dilemma, causing one to consider if these clauses are adequately drafted and suitable for the effective and efficient resolution of delay issues by the modern construction industry.

There is broad support within the construction industry for the availability and use of standard forms of contract which are capable of being used without substantial amendment. However, in Australia, there is evidence to suggest that there is no such form available, with extension of time clauses, and delay damages clauses being the most common and frequently amended contractual clauses (Sharkey, Bell *et al.* 2014).

Establishing Entitlement

Where a claim due to the occurrence of certain 'events' arises, objections to the claim (which elevates the matter to a dispute) are normally on the grounds of:

- The claimants right to make a claim for the 'event' in question;
- Disagreement as to:
 - If, how and/or when the 'event' in question happened;
 - The effects of the 'event' on the construction project;
 - Responsibility for the occurrence of the 'event';
 - Quantification of the effects of the 'event' (time and/or money).

To establish entitlement due to the occurrence of an 'event', the claimant typically needs to:

14. Establish or prove that the contract allows an extension of time (and/or loss and expense) for the occurrence of the 'event';

15. Comply with the procedural requirements of the contract with regard to notices and notification of the party's intention to make a claim;
16. Prove that the claimed 'event' was the cause of the delay;
17. Identify who was responsible for the occurrence of the 'event';
18. Quantify the consequences of the occurrence of the 'event' (time and/or money);

The essential part of this process is for the parties to provide evidence in support/rejection of the claim (typically mirroring the legislative requirement for the production of evidence), that when tested would demonstrate 'on the balance of probabilities' indisputable support/rejection of the claim. This is where the difficulty in agreeing the disputed issues arises. The contract clauses may clearly identify the legal rights, obligations and duties of the parties involved, but rarely go into sufficient detail as to give guidance as to what (and what format) the submissions should be in order to be accepted as being indisputable evidence by both parties.

Typically the contract clauses would be expected to address these issues in such a way as to enable an adequate resolution. The effective contractual approach of doing so would be to clearly express, in the wording of the contract, the prescribed outcome should an 'event' occur that causes delay. The wording of the 'expressed' terms would be in such a format as to ensure that there could be no misinterpretation of their meaning as to what and how suitable evidence should be provided and accepted as way of proof. In reality however, expressed terms specifically addressing the occurrence of such 'events' and issues, and how to handle them, are rarely present in current standard forms of construction contracts. Instead, amendments to the existing clauses of the standard forms are typically made (by way of altering existing contract provisions, and/or adding additional clauses/specifications into the contract) that are usually untested by the courts, leaving the parties open to the discretion of those attempting to apply the amended/additional clauses/specifications by way of interpreting their meanings, or 'implying' the interpretation of the amendments with the original contract provisions (either individually or together), that have typically originally been drafted and included in the contract to deal with completely different issues. Needless to say, this increases the likelihood of disagreement between the parties, and an increased likelihood of the disagreement evolving into a dispute.

CRITICAL SUCCESS FACTORS

In October 2002, after a two year consultation period with the UK construction industry, the Society of Construction Law (SCL) produced a Delay and Disruption Protocol (Society of Construction Law 2002) aimed at addressing these issues, which McCredie (2002) identified as being:

- Preparation, approval and updating of the contract programme;
- Entitlement to an extension of time;
- Ownership of float built into the programme;
- Concurrent delays attributable to separate employer and contractor risk events;
- Delay analysis techniques;
- Compensation payments.

Additional research into the problem was undertaken by the Chartered Institute of Building (2008). The thesis underpinning this research was that, despite the advice of the SCL Protocol and availability of advanced computerised facilities, little had changed in the practice of time management since the development of the bar chart nearly 100 years ago. The essence of the research was to gain an understanding of

industry performance, the techniques used, and the competence of those engaged in the process of time management. This led to the publication of a *"Guide to Good Practice in the Management of Time in Complex Projects"* whose purpose was to set down the strategy and the standards necessary in order to facilitate the effective and competent management of time in complex projects (Chartered Institute of Building 2011) by:

- Defining the standards by which project schedules are to be prepared, quality controlled, updated, reviewed and revised in practice;
- Describing the standards of performance which should reasonably be required of a project scheduler, as well as forming the basis for the education of project schedulers; and
- Without compromising its primary purpose, will be developed as a scheduling reference document capable of wide application.

The Chartered Institute of Building extended this work by drafting and publishing a new standard form of construction contract: *"The Contract for use with Complex Projects"* (Chartered Institute of Building 2013) aimed at overcoming such issues.

RESEARCH AIM AND OBJECTIVES

The aim of this research was to review and analyse a selection of Australian standard forms of construction contracts to assess their suitability for use with the processes and technologies available to a modern construction industry, by comparing and contrasting the clauses of those contracts that deal with extensions of time claims, with those perceived to be the essential critical success factors (CSF) for successfully dealing with extension of time claims, effectively and efficiently, that are available for use by the modern construction industry.

Research Objectives

The objectives of this research were to:

19. Carry out a literature review to identify the perceived critical success factors that should be present in standard forms of construction contracts for dealing with extension of time claims that are representative of the processes and technologies available to a modern construction industry;
20. Review, analyse, compare, and contrast the extension of time clauses of a selection of Australian standard forms of construction contract for the presence of the perceived critical success factors.

METHODOLOGY

A comparative analysis of the following standard forms of construction contracts (chosen for their perceived popularity of use and similarity for the types of project undertaken (Sharkey, Bell *et al.* 2014)):

- CIOB Contract for Use With Complex Projects (UK);
- Australian Standards 4000 (1997) General Conditions of Contract;
- Australian Standards 2124 (1992) General Conditions of Contract;
- NSW Government GC21 Edition 2;
- Property Council of Australia PC-1 1998.

Was undertaken by:

21. Carrying out a literature review to identify the common issues associated with delay disputes;

22. Identifying and tabulating the perceived critical success factors that enable the successful resolution of delay results (Table 1);
23. Carrying out a comparative analysis of the clauses of several Australian standard forms of construction contracts for the presence of the critical success factors;
24. Tabulating the results of the analysis (Table 1) to identify, categorise, and assess if the selected Australian standard forms of construction contract contained equivalent or suitable provisions for dealing with the critical success factor by:
 - a. Express Term: where the contract explicitly deals with the issue in detail within the wording of the contract clause;
 - b. Implied Term: where the contract deals with the issue by relying on the application and/or interpretation of one or more other contract clauses;
 - c. At the discretion of the Employer: where the contract provides for the matter to be dealt with at the discretion of the employer.

Where the contract was silent on the issue, or provided for the matter to be dealt with at the discretion of the contractor, no categorisation was made as it was considered that the contractor was free to use whatever process (if any) they considered suitable, which could have included those prescribed by the critical success factors. However, the opportunity for the contractor to apply their own perceived 'best practice' approach and procedures for documenting, presenting, and administering a claim could provide further opportunity for disagreement between the parties, and more potential disputes.

Table 1: Comparative Analysis of Australian Standard Forms of Construction Contract

Critical Success Factor	Contract				
	CPC 2013	AS 2124	AS 4000	GC21	PC 1
PROGRAMME					
Requirement for provision of a programme	a	c	c		a
Requirement for programme to be a critical path method	a	c	c	b	c
Mechanism for specifying programming software	a	c	c		
Programme to be prepared to specified guides/codes	a	c	c		c
Within a specified timescale	a		c		a
Specify information to be included in programme	a		c		c
Approval of programme procedures	a				a
Mechanism for non-provision of programme	a				
Regular QA procedures for programme	a				
METHOD STATEMENT					
Requirement for provisions of a method statement	a				
Within a specified timescale	a				
Specify information to be included in progress records	a				
Approval of method statement procedures	a				
Mechanism for non-provision of method statement	a				
Regular QA procedures for method statement	a				
PROGRESS					
Requirement for progress meetings	a			c	
Requirement for maintaining progress records	a			c	
Within a specified timescale	a				
Approval of progress record procedures	a				

UPDATING OF PROGRAMME

Requirement for updating of programme	a	c	c	a
Within a specified timescale	a	c	c	a
Specify information included in updated programme	a	c	c	c
Approval of updated programme procedures	a			c
Requirement for final programme on completion	a			c
Mechanism for non-provision of updated programme	a			
Regular QA procedures for programme	a			

UPDATING OF METHOD STATEMENT

Requirement for updating method statement	a			
Within a specified timescale	a			
Specify information to be updated in method statement	a			
Approval of updated method statement procedures	a			
Mechanism for non-provision of method statement	a			
Regular QA procedures for method statement	a			

ENTITLEMENT

Mechanism for identifying/agreeing events	a	a	c	a
Procedures for early notification of "event" occurrence	a	a		a
Determine actions for "event"	a	a	c	c
... within a specified time	a	a		a
Update programme due to "event" occurrence	a			
Update method statement due to "event" occurrence	a			
Give instructions as a consequence of the "event"	a		c	
... within a specified time period	a			
Amend consequences due to more accurate data	a		c	

FLOAT

Defines meaning of float	a			
Identifies ownership of float	a	b	b	
Defines meaning of contingency	a			
Identifies ownership of contingency	a			

CONCURRENCY

Defines concurrency	a			
Clearly identifies entitlement due to concurrency	a	a	a	

DELAY ANALYSIS TECHNIQUES

Detailed breakdown of time effects of "event"	a			a
... within a specified time	a		a	a
Prepare a logically linked <u>fragnet</u> for each "event"	a			
Detailed identification of work suspension periods	a	a		a
Update programme with suspension periods/ <u>fragnets</u>	a			
Identify effects on draft impacted working schedule	a			
Publish draft working schedule (DWS)	a			
... within a specified time	a			
Approval procedures for DWS	a			
Procedures for non-publishing of DWS	a			
Publish draft impacted planning method statement	a			
... within a specified time	a			

Approval procedures for DIPMS	a			
Procedures for non-publishing of DIPMS	a			
Mechanism for calculating the effects multiple events	a			
COMPENSATION PAYMENTS				
Notification of "event" loss and/or expense procedures	a	a	a	a
... within a specified time	a			
Notification of "event" non-completion procedures	a			
... within a specified time	a			
Detailed description of the "event"	a			a
Detailed valuation of the "event"	a			a
Calculation procedures due to failure to provide detail	a			

RESULTS

Sixty nine perceived critical success factors that provided for the effective and efficient processing and resolution of delay claims were identified (and tabulated in Table 1).

A summary of the results of the comparative analysis of the selected contracts are tabulated in table 2.

Table 2: Summary of the Analysis of Australian Standard Forms of Construction Contract

Contract	Expressed No. (%)	Implied No. (%)	Employer Discretion No. (%)
CPC 2013	69 (100)		
AS 2124	7 (10)	1 (1)	7 (10)
AS 4000	3 (5)	1 (1)	13 (19)
C21	8 (12)	1 (1)	3 (5)
PC1	5 (7)		6 (9)

Of the standard forms of construction contracts analysed, only the new CPC 2013 contract dealt explicitly with all of the perceived critical success factors in detail.

Of the Australian standard forms of construction contracts analysed:

- AS 2124 only dealt with 15 of the perceived 69 critical success factors, of which 7 were clearly expressed, 1 was implied, and a further 7 were left to the employers' discretion, providing a high potential for disagreement between the parties concerning the issues a contractor may raise in support of an extension of time claim.
- AS 4000 only dealt with 17 of the perceived 69 critical success factors, of which 3 were clearly expressed, 1 was implied, and 13 were left to the employers discretion, providing a high potential for disagreement between the parties concerning the issues a contractor may raise in support of an extension of time claim.
- C21 only dealt with 12 of the perceived 69 critical success factors, of which 8 were clearly expressed, 1 was implied, and 3 were left to the employers' discretion, providing a high potential for disagreement between the parties concerning the issues a contractor may raise in support of an extension of time claim.
- PC1 only dealt with 11 of the perceived 69 critical success factors, of which 5 were clearly expressed, and 6 were left to the employers' discretion, providing a high potential for disagreement between the parties concerning the issues a contractor may raise in support of an extension of time claim.

CONCLUSIONS

The selected Australian standard forms of construction contracts analysed have a high potential for disagreement between the parties when trying to effectively and efficiently resolve an extension of time claim, with a high potential for the matter to evolve into a dispute due to lack of agreement between the parties when compared with the new CPC 2013 standard form of contract.

The selected Australian standard forms of construction contract are typically vague as to the use of modern processes and technology available to the modern construction industry for the effective and efficient resolution of an extension of time claim when compared with the new CPC 2013 standard form of contract.

The vagueness of the selected Australian standard forms of construction contract towards the use of modern processes and technology available to the modern construction industry for the effective and efficient resolution of an extension of time claim, and their reliance and adherence to contractual clauses and terms that give an implied understanding as to the meaning and application of one or more clauses, and to contractual clauses and terms that give the client, and/or the contractor discretion as to how to resolve any disagreements with respect to any claim, provide a greater opportunity for the issue to evolve into a dispute.

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