THE PURPOSE OF RETENTIONS: A REVIEW OF THE EXISTING LITERATURE

Priyanka Raina* and John Tookey School of Engineering, Auckland University of Technology, New Zealand

ABSTRACT

Retention is a phenomenon practiced in the construction industry for well over a century. It is a contractual mechanism whereby a portion of money, due to the contractor/subcontractor is held back till the completion stage of the project. Half of it is released at the time of practical completion and the other half is released at the end of the defects liability or the maintenance period. Some countries have abolished this practice, others have tried to outlaw the practice but failed. Yet others seem to be content with the ongoing practice and find it useful, which is why it is important to understand as to why it is so. To achieve this objective it is first of all important to understand the 'purpose of retentions' or why are retentions used in today's construction industry even though the industry has undergone radical changes in the past century or so. A review of the current literature suggests that retentions exist for a variety of purposes. Hence there seems to exist some form of disconnect between the actual and the intended purpose of retentions. Perhaps it is important to understand whether retentions are actually serving the purpose they are set up for. In this paper the author through an extensive literature review has identified a number of purposes of retentions. Data has been collected from 27 publications including books, journal articles, magazines, reports etc. Ten main purposes/themes have been identified from the data. A matrix has then been formed with the purposes on one axis and author/publication on the other. This has been done to find out what most authors/publications have said regarding the purpose of retentions. Having found the numbers with the help of the matrix the purposes are numbered in the order of most recurring to the least recurring. The top three purposes of retentions are found to be performance security followed by defect rectification and motivation for early or timely completion.

Keywords: Retentions, Construction Industry, Construction Contracts.

1. INTRODUCTION

The payment mechanism of construction projects is different compared to other industries. For every payment made to a contractor or subcontractor a sum of money is held back which can vary from a low of 2% to as high as 10%. This deduction is a phenomenon peculiar to construction and is known as retention, retainage or hold back.

There have been debates and discussion on the merits and demerits of retentions (Fullerton, 2000; Abeysekera, 2003; Construction Manager, 2002). In the US the practice has been abolished (in public contracts of some states though) whereas in the UK they have tried and failed to have it abolished (House of Commons, 2002; Bausman, 2004).

Retentions are held both by the clients and the contractors. The clients hold retentions when they make payments to the contractors and the contractors when they make payments to the subcontractors. The contractor tries to achieve its profit margin by all means and it is the same case with the subcontractors. Therefore being focused on their profits contractors and subcontractors are generally seen compromising project performance. The reason for introducing retentions into construction contracts was to protect project performance. In the present day construction industry, retention is the most commonly used performance security.

^{*} Corresponding Author: E-mail- priyanka.raina@aut.ac.nz

2. WHAT ARE RETENTIONS?

In its essential form, retention is a sum of money kept back from payment to a contractor or subcontractor until later in the contract (Hughes *et al.*, 1998). The accumulated money through retention is actually earned by the contractor as a part of the progress payment based on the interim valuation of the work completed. The retention is commonly between 5%-10%, of the total value of the contract, however the figure can be lower or considerably higher. It can also be ascertained differently, as it has become increasingly popular to set up retention as a fixed amount rather than a percentage (say \$100,000) or to vary the absolute amount or percentage representing retention as the work progresses (Gilbreath, 1992).

The client holds on to the retention money until the completion stage of the contract. The retention sum is released once the client is reasonably assured by the architect/engineer that the project is completed as per the terms of the contract, and progress payments have been accurately prepared (Wyatt, 2003). The retention release mechanism is such that half of this is released to the main contractor once the project is certified practically complete whereas the other half is withheld until the end of the defects liability period or the maintenance period, during which the contractor must rectify any defects identified.

2.1. HISTORICAL BACKGROUND

The concept of retentions is at least as old as the Industrial Revolution (Wyatt, 2003). The original retention system began in Victorian times and was first utilised in railway construction during the 1840s. The rapid expansion of the rail network at the time created a high demand for construction labourers with an increase in the number of construction companies. Due to the increasing rate of insolvency (frequent at that time) among such construction companies and the consequent delays to building projects, the clients needed a mechanism to protect themselves and came up with a solution. The purpose of introducing retentions into construction contracts in those times was in order to be assured that there was availability of funds to help defray the cost of completion of project in case of insolvency of the contractor executing the project (Gilbreath, 1992). The practice spread to the rest of the construction industry, and until today, the retention system has become a vital part of any contract document for construction projects (House of Commons, 2002).

2.2. WHY HOLD RETENTIONS?

Retention is a phenomenon practiced in the construction industry for well over a century. It is a contractual mechanism enforced by legislation in most parts of the world. However some countries have abolished this practice finding other provisions of dealing with the risk, for which retentions exist. Others have tried to outlaw the practice but failed, yet others seem to be content with the ongoing practice and find it useful, which is why it is important to understand why it is so (Abeysekera, *et al.*, 2009). To achieve this objective it is first of all important to understand the 'purpose of retentions' or why are retentions used in today's construction industry even though the industry has undergone radical changes in the past century or so. According to Williams (2005) "given the volatile circumstances in which retainage originated, it is a historical oddity that retainage remains commonplace today when construction markets are so very different". Hence there seems to exist some form of disconnect between the actual and the intended purpose of retentions. The existing literature on retentions sets out a number of its uses; perhaps it is important to understand whether retentions are actually serving the purpose for which they were set up.

3. PURPOSE OF RETENTIONS

A review of the existing literature suggests that retentions exist for a variety of purposes. According to Champion (2005) retention provision is universally used by clients in the UK because it is understood by all. Also it provides a means of building small cash in hand fund during the course of the works which can be useful for cash flow. Using the retention provision avoids dealing with surety and it is already a part of the contract. The overriding reason Champion (2005) suggests for the use of retentions is administrative convenience. Retention terms are found in the standard forms of contract, the percentage to be withheld is

set in advance and the retention amount grows subsequently by the month as part of the payment process. Interestingly no standard forms of contract define the purpose of retentions or what retentions are used for (Abeysekara, 2008). Therefore it may be contended that retentions are used only because the provisions exist in most of the standard forms of contract. This could well be a significant observation if it were demonstrable. As a conceptual rationale for use their existence as an option meaning that they should be used is very troubling.

Various authors and publications have identified a number of different purposes of retentions which have been tabulated in Table 1. All or most of the purposes stated in the table include a common element of performance security in one form or the other; be it to rectify defects or non-performance due to insolvency or simply to encourage good performance. Some of the uses of retentions are valid for the construction period whereas the rest are for the defects liability period or the maintenance period. The difference between the construction period and the defects liability period is that during construction the contractor/subcontractor is available on site whereas after practical completion the contractor is off site and the motivation to come back to site to rectify any defective or incomplete work has to be considerably high. The latter argument can be supported by the findings of Hughes *et al.* (1998) that the retention fund becomes limited after the payment of the retention money for practical completion. This amount may be insufficient in case of contractor or subcontractor not being able to perform due to serious defects and causing delays. Another argument in support of this notion by Wearne (1989) is that the retention amount may not be helpful in case the contractor determines that his resources can earn him more money if used in other contracts rather than to gain the retentions back.

3.1. Research Methodology

The objective of this paper is to identify the main purpose of the retention practice in the construction industry with a view to understand whether the practice is actually serving the purpose for which it is used in the industry. Although the retention system was introduced to protect the client from contractor insolvency, the periodic reform in the provisions of retention system fulfils many purposes. This paper reviews 27 publications including books, journal/conference articles, magazines and reports to identify the various purposes of retentions.

3.2. AN ANALYSIS OF THE PURPOSE OF RETENTIONS

An analysis of the purpose of retentions was carried out by using the data tabulated and presented in Appendix 1 (attached at the end of the paper). Appendix 1 sets out the different purposes of retentions identified in a total of 27 publications including books, journal articles, magazines, reports, etc. This has been done to gather the varied purposes of retentions as stated by different authors and organisations. From every publication the purpose/purposes of retention have been identified and subsequently the main theme stated. Ten main themes (purposes) have been identified from the tabulated data and presented in Table 1 below. The ten themes have been coded as P1, P2....P10 and the authors or publishers as A1, A2....A27 corresponding to the data in Appendix 1. A matrix has then been formed with the purposes on one axis and the publications/authors on the other as presented in Table 2 overleaf. This has been done to find out what these authors/publications have said regarding the purpose of retention. The last row of Table 2 shows by way of numbers the purpose identified by maximum publication followed by the rest. Having found the numbers with the help of the matrix as shown in Table 2 the purposes are ranked and numbered in the order of most recurring to the least recurring in column 3 of Table 1.

Code	Description of Purposes of Retentions	Rank
P1	Rectify defects during construction	5
P2	Rectify defects during defects liability period	2
P3	Leverage to get defects put right	3
P4	Performance security e.g. to assure project completion or complete outstanding work or in case of non-performance or won't perform	1
Р5	Motivation/Incentive for early or timely completion	3
P6	Protection against insolvency	4
P7	Financial security in case of over payment	5
P8	Administrative convenience	5
Р9	Funds to pay mechanic's lien	5
P10	Quality assurance	5

Table 1: Description of Purposes of Retentions with Ranks

Table 2: Retention Purpose Matrix

	Purpose of Retentions											
S No	Type of Source	Article	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
1	Conference proceedings	A1			✓	✓						
2	Book	A2			✓		✓				✓	
3	Report	A3		~		✓		~	✓			
4	Book	A4			✓		✓					
5	Journal article	A5								✓		
6	Book	A6		~								
7	Report	A7		~			✓					✓
8	Magazine	A8	\checkmark			✓	✓				✓	
9	Book	A9		~		\checkmark	\checkmark					
10	Report	A10			✓			✓				
11	Book	A11	\checkmark	✓	✓	✓		✓		✓		
12	Journal article	A12		~			~	✓				
13	Book	A13				✓						
14	Book	A14		~	✓	✓						
15	Book	A15			\checkmark							✓
16	Book	A16		~								
17	Magazine	A17			✓							
18	Book	A18				\checkmark		✓				
19	Book	A19		~		✓						
20	Book	A20				✓	✓					
21	Book	A21		~								
22	Report	A22			✓		✓					
23	Magazine	A23		\checkmark		✓						
24	Journal article	A24				✓	✓					
25	Book	A25		~		✓						
26	Magazine	A26		✓								
27	Report	A27				✓			✓			
	Total		2	13	9	14	9	5	2	2	2	2

From this literature review analysis it can be concluded that most authors/publications have identified the primary purpose of retentions to be P4, i.e. "Performance Security" and P2, i.e. "Rectifying defects during the defects liability period". Out of the 27 publications 14 have identified performance security and 13 have identified rectifying defects during DLP as the primary purpose of retentions. This is followed by 9 each having identified P3, i.e. 'leverage to get defects put right' and P5, i.e. 'motivation/incentive for timely or early completion' as the secondary purpose of retentions. Next of importance is the use of retentions as a 'protection against insolvency' (P6) supported by 5 authors, followed by the remaining purposes P1, P7, P8, P9, P10 as shown in Table 1.

4. CONCLUSIONS

The conclusion drawn from this literature review analysis is that retention is perceived to be used for many different purposes. However the primary purpose identified for its existence in the construction industry seems to be performance security; be it to rectify defects or non-performance due to insolvency or simply to encourage good performance. Some of the uses of retentions are valid for the construction period whereas the rest are for the defects liability period. Retention originally was introduced into the construction industry as a measure to protect project performance however with the transformation that the industry has undergone in the past century or so the existence of retentions is rather questionable. Especially with the inclusion of a range of risk mechanisms and securities to deal with performance related issues it might be sensible to establish the exact purpose of retentions. The idea of holding retentions in these modern times is indeed a good one but the fact is that are retentions actually able to justify their existence. The way forward with this research would be to find out from the industry experts whether retentions are fulfilling the purpose for which they exist and if not then what is the rationale behind the continuation of the practice.

5. **References**

- Abeysekera, V. (2003). Exploring the case for a construction guarantee fund in New Zealand. In the Proceedings of the Joint Symposium on Knowledge Construction (CIB Working Commissions W55: Building Economics, W65: Organisation and Management of Construction, W107: Construction in Developing Countries). Dept. of Real Estate and Building of National University of Singapore, Singapore.
- Abeysekara, V. (2008). Building theory for the built environment: The case of monetary retentions. *In Proceedings* of the International Conference in Building Education and Research (BEAR). Heritance Kandalama, Sri Lanka.
- Abeysekera, V., Raina, P., and Neitzert, T. (2009). Building theory on monetary retention regimes. In Proceedings of the Fifth International Conference on Construction in the 21st Century (CITC-V) "Collaboration and Integration in Engineering, Management and Technology". Istanbul, Turkey.
- Allensworth, W. (2009). Construction law. Chicago: Forum on the Construction Industry, American Bar Association.
- Bausman, D. C. (2004). *Retainage practice in the construction industry*. Alexandria, VA: Foundation of the American Subcontractors Association Inc.
- Bennett, F. L. (2003). The management of construction: A project life cycle approach. Oxford: Butterworth-Heinemann.
- Champion, R. (2005). Do we need retention. Construction Law Journal, 21(6), 403-418.
- Chappell, D. (Ed.). (2003). Understanding JCT standard building contracts (7th ed.). London: Spon Press.
- Construction Manager. (2002, June). MPs to look at scrapping of retentions. Construction Manager, *The Magazine of the Chartered Institute of Buildings*.
- Council, N. S. C. (2007). *Retentions: Striking out cash retentions*. Retrieved from http://www.nscc.org.uk/docs/fair-payment/retentions_guidance.pdf.
- Fullerton, J. D. (2000, November/December). R.E.T.E.N.T.I.O.N. *Business Credit Magazine*, National Association of Credit Management, 22-24.

- Gilbreath, R. D. (1992). *Managing construction contracts: operational controls for commercial risks* (2nd ed.). New York: Wiley.
- House of Commons. (2002). *The use of retentions in the UK construction industry*. London: House of Commons, Trade and Industry Committee.
- Hughes, W., Hillebrandt, P., and Murdoch, J. (1998). *Financial protection in the UK building industry*. London: E & FN Spon.
- Hughes, W., Hillebrandt, P., and Murdoch, J. (2000). The impact of contract duration on the cost of cash retention. *Construction Management and Economics*, 18, 11-14.
- Huse, J. A. (2002). Understanding and negotiating turnkey and EPC contracts. London: Sweet & Maxwell.
- Jones, N. F., and Baylis, S. E. (Eds.). (1999). Jones & Bergman's JCT intermediate form of contract. London: Blackwell Science Ltd.
- Kennedy-Grant, T. (1999). Construction law in New Zealand. Wellington: Butterworths.
- Knocke, J. (Ed.). (1993). Post construction liability and insurance. London: E & FN Spon.
- Latham, M. (1997, 13 June). Giving up retentions. Building, 262.
- Latham, M. (1994). Constructing the team. London: HMSO.
- McInnis, A. (2001). The New engineering contract: A legal commentry. London: Thomas Telford.
- Murdoch, J., and Hughes, W. (2002). Construction contract law and management. London: Spon Press, Taylor & Francis group.
- O'Leary, A. F. (1999). A guide to successful construction: Effective contract administration (Revised 3rd ed.). Los Angeles: BNi Publications.
- Pettigrew, R. (2005). Payment under construction contracts legislation. London: Thomas Telford.
- Procurement strategy for construction-related services. (2002). Rotherham Metropolitan Borough Council, Economic and Development Services.
- Russel, V. (2002). Retentions: *The alternatives construction news*. Retrieved from http://www.cnplus.co.uk/news/retentions-the-alternatives/878328.article
- Stockenberg, R. A. (2001, 07). Retainage uses and abuses. Building Design & Construction, 42, 37.
- Wearne, S. (1989). Engineering Management: Civil engineering contracts. London: Thomas Telford Ltd.
- Wessely, L. (2002, 1 November). Don't hold back now. Building. Retrieved from www.building.co.uk
- Williams, E. (2005). Declare war on retainage Modern Steel Construction, 45(6).
- Wyatt, D. J. (2003). Specifying retainage requirements. The Construction Specifier, 56(12), 36-3

Appendix 1

S No	Type of Source	Article/Reference	Definition/Purpose of Retentions	Main theme
A1	Conference Proceedings	Abeysekera, 2003	Head contractors (and clients) point out that as so long as industry produces defective work with performance related problems, retentions must and will remain. the function of retentions is that it guarantees the performance and quality of workmanship of the sub and main contractor	Rectify defects, performance security
A2	Book	Allensworth, 2009	The purpose of retainage is to preserve a fund of money that will be available to assure final completion and to correct defects in the work. Retainage also gives the owner, lender, and sureties extra security or protection against other issues that might arise, such as defective work, unpaid subcontractors, or liens filed late in or after the construction process.	Motivation to finish the job, Leverage to get defects put right. Funds to pay mechanic's lien.
A3	Report	Bausman, 2004	In addition to protection against contractor insolvency, proponents have encouraged its use to provide a 'buffer' for the valuation of work installed, remedy defects found during turnover of the facility, and encourage contractor performance.	Protection against insolvency, financial security in case of overpayment, remedy defects during defects liability period, encourage performance i.e. performance security.
A4	Book	Bennett, 2003	To provide an inducement to complete the work on time, because the retainage will be released upon completion, and to produce a quality project. So owners feel a need to retain moneys for such cases as contractor failure to remedy defective work or contractor-caused claims against the work that the owner may have to settle.	Motivation for prompt completion, Leverage to get defects put rights.
A5	Journal Article	Champion, 2005	Perhaps the overriding reason why retention provisions are used is administrative convenience.	Administrative convenience.
A6	Book	Chappell, 2003	This retention fund is also useful at the end of the job to ensure that making good of defects is carried out.	Rectify defects during DLP.
A7	Report	Council, 2007	Cash retention is the most prevalent form of protection against sub-standard work on a construction project. A 'fund' to put towards the cost of the contractor not finishing the job or the cost of correcting any defects in the finished building. The main purpose of retention is to give a client certainty that the contractor will complete the work and fix any problems that emerge within an agreed period of time after this.	Quality assurance, Rectify defects during DLP, Motivation for timely or early completion.
A8	Report (Magazine)	Fullerton, 2000	"The owners and the general contractors feel that retention is necessary to insure prompt completion of the project. Retention will motivate tradesmen to return to the project to complete small unprofitable punch-list items. Retention provides the owner and general contractor with money to correct defective work if a subcontractor abandons the project and provides funds to pay the mechanic's lien claims of unpaid suppliers".	Motivation for prompt completion, performance security, correct defects during construction, funds to pay mechanic's lien.
A9	Book	Gilbreath, 1992	 To motivate the contractor to complete the work. To cover the risk of latent errors or omissions. To encourage contractors to return to the work after a planned demobilization. 	Motivation for prompt completion, rectify defects during defects liability period, performance security e.g. complete outstanding work.

World Construction Conference 2012 – Global Challenges in Construction Industry

28 – 30 June 2012, Colombo, Sri Lanka

S No	Type of Source	Article/Reference	Definition/Purpose of Retentions	Main theme
A10	Report	House of Commons, 2002	"We note that, while construction clients felt that the use of retentions afforded them a degree of assurance and control over the rectification of faults and gave some level of insurance against insolvency by the contractor.	Leverage to get defects put right, protection against insolvency.
A11	Book	Hughes, Hillebrandt, & Murdoch, 1998	They are well understood, do not require any documentation apart from the contract itself and are by definition readily accessible. Hence where the client claims to have suffered from a contractor's mis-performance, a compensation fund is immediately available. Moreover, this may be the most powerful weapon in cases of "won't perform" – the view has been expressed that this is the lever which is most likely to bring a sub-contractor back to site to remedy defective work.	Administrative convenience, performance security, remedy defective work during DLP, remedy defects during construction. Leverage to get defects put right. Protection against insolvency.
A12	Journal Article	Hughes, Hillebrandt, & Murdoch, 2000	"The primary purpose of this retention is to provide a fund for the employer in the event that the contractor fails to perform because of insolvency. A secondary purpose is to motivate the contractor to complete any minor outstanding items and repair defects after the work are finished".	Protection against insolvency, motivation for prompt completion, repair defects during DLP.
A13	Book	Huse, 2002	"The employer may want to withhold a portion of each interim payment, an amount known as retention money, as a form of security of performance.	Performance security
A14	Book	Jones & Baylis, 1999	From the employer's point of view it is a useful system as it represents some protection against the inclusion of defective work in a valuation and which is therefore included in the amount of an interim certificate. It also provides security for the performance by the contractor of his obligations. Its main purpose, however, is to provide the employer with a fund during the defects liability period following practical or substantial completion, should the contractor fail to return and make good any defects of which he is notified"	Protection against defective work, security for performance, remedy defects during the defects liability period.
A15	Book	Kennedy-Grant, 1999	A fund from which to defray the cost of making good any default by the contractor in completion or in the quality of work.	Leverage to get defects put right, Quality assurance.
A16	Book	Knocke, 1993	There is normally a defects liability provision in building contracts which provides that the contractor shall make good defects or repair and maintain works for a certain period after completion.	Repair defects during the defects liability period.
A17	Magazine	Latham, 1997	It is supposed to be a mechanism whereby clients can build up a fund during the project that will act as an inducement to the contractor to remedy defects.	Leverage to get defects put rights.
A18	Book	McInnis, 2001	Retentions provisions empower the employer to retain an agreed percentage of each payment due to the contractor as security for performance of the works and as some protection against insolvency of the employer.	Performance security, protection against insolvency.
A19	Book	Murdoch & Hughes, 2002	"The retention fund is available to the employer for the purposes of underpinning contractual performance, in particular rectifying, or inducing the contractor to rectify, any defects in the work appearing during the defects liability period which starts from the date of practical completion to the date specified in contract"	Performance security, rectifying defects during defects liability period.
A20	Book	O'Leary, 1999	The purpose of the retainage is to provide the owner with a degree of financial protection in the event contractor fails to faithfully complete all of the terms and conditions of the contract. The retainage also provides a financial incentive to some contractors to remain on the job.	Financial security to the owner in case of non-performance. Incentive for the contractor to remain on the job or finish the job.
A21	Book	Pettigrew, 2005	"In Chapter eleven of his Report, Sir Michael identified the following 'The retention system is supposed to be a mechanism whereby a client can build up a fund during	Rectify defects during defects liability period.

World Construction Conference 2012 - Global Challenges in Construction Industry

28 – 30 June 2012, Colombo, Sr	i Lanka
--------------------------------	---------

S No	Type of Source	Article/Reference	Main theme	
			the course of a project which will act as an inducement to the contractor to remedy any defect during the liability period.	
A22	Report	Procurement strategy for construction- related services, 2002	"Retention money has long been a feature of contracts. The concept is simple – a set proportion of the money due under the contract is withheld to encourage the contractor to complete the works and remedy any defects.	Motivation to complete work on or before time, Leverage to get defects put right.
A23	Magazine	Russel, 2002	 To provide the employer with funds to rectify a failure by the contractor to complete the work to the standard required. To provide an incentive for contractors to return to site to remedy defects following handover of the works. 	Performance security, rectify defects during DLP.
A24	Journal Article	Stockenberg, 2001	The legitimate purpose of retainage has always been to ensure owners that the contractors properly and timely complete the work.	Motivation for prompt or timely completion, Performance security.
A25	Book	Wearne, 1989	The amount is then 'released' (paid) if the contractor has completed his obligations such as rectifying poor work. The potential advantage to a promoter is that a contractor should have the incentive to complete his obligations.	Rectify defects during DLP, Performance security.
A26	Magazine	Wessely, 2002	The whole idea of retention is to safeguard against defects that may only emerge in a job after it's completed.	Rectify defects during DLP
A27	Report	Wyatt, 2003	Retainage is money withheld by an owner from progress payments due to the contractor to assure project completion. Retainage provides the owner a margin of financial security in case overpayment has been made for a portion of the work".	Performance security e.g. to assure project completion, financial security in case of overpayment