LEVEL OF UNDERSTANDING THE CONTRACT REQUIREMENTS OF PWD 203A (Rev.2007) STANDARD FORM OF CONTRACT AMONG THE CONSTRUCTION PROFESSIONAL

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ABSTRACT

Construction contracts are usually made in writing and using one of the standard forms available .Standard Forms of contract have been use in the Malaysian construction industry as a means to expedite contractual and legal duties for the clients who wish to avoid expensive and complex legal endeavor to arrive at an agreement with their contractor. Various forms have been drafted by various professional bodies and organization, both locally and internationally, to meet the demands of local construction market for standard form. The problems arise when the standard form is drafted by the legal people and will be implementing by the technical background people that has a little knowledge about the legal aspect. The legalese problem also takes place in the contract's issues, which may mislead the true meaning of the particular clause and cause the people not understand at all. Not all people can understand the meaning of the contract forms. Construction contracts can be a complex subject if interpretation and administration of contract are not being handled properly. In relation to these, the objectives of the study are to determine the level of understanding the contract requirement of Standard Form of contract among the construction professional. Generally, data is collected from the structured interview to selected parties in construction area to know their extent of understanding to Standard Forms of contract. The secondary sources include books, articles, seminar papers, newspaper as well as information from electronic media database on the construction contract law. The scope of this research is to know the level of understanding of PWD 203A among the construction professional (Engineer, Quantity Surveyor and Contractor) who had an experience in this field within five to The finding from the structured interview is to shows level of understanding of PWD 203A Standard Form of contract among the construction professional. As a conclusion with this research, by using the "simple plain English", not too long sentences and not too legal terms and phrase also can help the parties understand the contract they had entered. The study shows the medium level of understanding of PWD 203A Standard Form of contract among the construction parties.

ABSTRAK

Kontrak pembinaan biasanya dibuat secara bertulis dan menggunakan satu borang seragam sahaja. Borang seragam kontrak telah digunakan dalam industri pembinaan Malaysia sebagai cara untuk mempercepatkan tugas kontrak dan undang-undang bagi pelanggan yang ingin berusaha mengelakkan undang-undang yang kompleks untuk mencapai perjanjian dengan kontraktor mereka. Pelbagai bentuk borang seragam telah digubal oleh pelbagai badan profesional dan organisasi dalam dan luar negara untuk memenuhi permintaan pasaran tempatan bagi borang seragam ini. Masalah timbul apabila borang seragam yang digubal oleh pihak yang berpengetahuan dalam bidang undang-undang dan perlaksanaanya pula oleh pihak yang berlatar-belakang teknikal yang mempunyai sedikit pengetahuan tentang aspek undang-undang ini.Masalah bahasa undang-undang juga berlaku dalam isu-isu kontrak, dimana bahasa undang-undang boleh mengelirukan maksud sebenar sesuatu fasal dan menyebabkan ramai pihak tidak memahami sama sekali. Tidak semua pihak dapat memahami makna borang kontrak. Kontrak pembinaan boleh menjadi satu isu yang kompleks sekiranya gagal dalam menterjemah kehendak kontrak dengan tepat. Sehubungan dengan ini, objektif kajian adalah untuk menetukan tahap pemahaman Borang seragam kontrak di kalangan profesional pembinaan .Secara amnya, data dikumpulkan melalui kaedah temubual berstruktur kepada pihak-pihak tertentu di dalam bidang pembinaan untuk mengetahui sejauh mana pemahaman mereka kepada Borang Seragam kontrak. Sumber sekunder pula termasuk buku, artikel, kertas seminar, akhbar serta maklumat daripada pangkalan data media elektronik. Lingkungan kajian ini pula adalah melibatkan pemilihan responden terdiri sebagai Juruukur Bahan, kontraktor dan Jurutera yang telah berpengalaman 5 hingga 10 tahun dalam industri pembinaan. Penemuan daripada soal selidik ini adalah untuk menentukan tahap pemahaman pihak-pihak dalam industri pembinaan terhadap Borang Seragam kontrak.. Sebagai kesimpulan, Dengan menggunakan Bahasa Inggeris yang mudah dan jelas penggunaan ayat yang tidak panjang serta tidak menggunakan bahasa undang-undang akan membantu pihak yang dalam memasuki kontrak untuk lebih memahami kontrak diantara mereka. Kajian ini telah menunjukkan tahap kefahaman yang sederhana terhadap boring seragam kontrak diantara pihak-pihak dalam industry pembinaan ini.

TABLE OF CONTENTS

CHAPTER	TITTLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF CASES	xiv
	LIST OF TABLES	XV
	LIST OF FIGURES	xvi
	APPENDIX	
1	INTRODUCTION	
	1.1 Statement of Problem	1
	1.2 Research Objective	5
	1.3 Scope of Objective	7
	1.4 Significant of Reseach	7
	1.5 Research Method	8
	1.6 Research Methodology Flow	11
	1.7 Organization of Research	12
	1.8 Conclusion	13

2	STA	NDARD FORM OF CONTRACT	
	2.1	Introduction	13
	2.2	Relationship Among The Parties in Construction	14
	2.3	The Contract	15
		2.3.1 The Need for Writing Contract	17
		2.3.2 Characteristics of Good Construction	
		Contract	18
		2.3.2.1 Risk Allocation	18
		2.3.2.1 Understand by Parties	18
		2.3.2.1 Modern,Simple,Clear and	
		Consistent	19
		2.3.2.1 The Project Management	
		Approach	19
		2.3.3 Interpretation of Construction Contract	20
	2.4 C	ommon Types of Standard Form Building	
	C	ontracts in Malaysia	22
	2.5 S	tandard Form of General	25
		2.5.1 Definition of standard form	25
		2.5.2 Background of Standard Form	
		Contract in Malaysia	26
		2.5.3 Purpose of Standard Form of Contract	26
	2.6	Types of Standard Form of Contract	27
	2.7	Merit and demerits Standard Form of	29
		Contract	
	2.8	Conclusion	34
3		ERSTANDING STANDARD FORMS OF	
		TRACT	
	3.1	Introduction	35
	3.2	Background of Construction Industry	36
	3.3	Role and Relationship	36
	3.4	Construction Disputes	38
	3.5	Construction Contract	39

	3.6	Contra	act Requirement	40
	3.7	Under	standing of Contract Requirement	41
	3.8	Under	standing the Standard Form	42
	3.9	Legale	ese	43
	3.10	The Ir	nterpretation of Contract	44
		3.10.1	The Problems with Formal written	44
			Agreement	
		3.10.2	Problems of Interpretation	45
	3.11	The N	eed for Clarity of Contract	46
	3.12	Plain	English Usage	48
	3.13	Sumn	nary of Difficulties in Understanding	
		Stand	ard Form of Contract	50
	3.14	Meas	ures to Improve Understanding	51
	3.15	Meth	ods for Improving the Understanding	
		of Co	nstruction Contract	51
	3.16	Concl	usion	54
4	RESE	EARCH	ANALYSIS AND DISCUSSION	
	4.1	Introd	uction	55
	4.2	Comn	nents from Structured Interview	56
		4.2.1	Analysis for how Respondent found	the
			JKR 203 A Standard Forms of	
			Contract	56
		4.2.2	Analysis for Major Problems influen	ced
			the difficult to understand the Standa	ırd
			Form of Contract	58
		4.2.3	Analysis for the Respondent's opinio	on 60
		4.2.4	Analysis for the opinion of responde	nts
			about the language of contract being	
			"Simple Plain English"	71
		4.2.5	Analysis for how often the responder	nts
			refer to standard Form of contract w	hen
			doing the construction work.	73

	4.3	Summary of Finding	74
	4.4 C	Conclusion	78
5	CON	ICLUSION AND RECOMMENDATION	
	5.1	Introduction	79
	5.2	Research's Overview	80
	5.3	Research Constrain	81
	5.4	Recommendation	81
	5.5	Further Research	82
	5.6	Conclusion	83
	REF	ERENCES	84
	APPI	ENDIX	89

LIST OF CASES

LIST OF TABLES

TABLE NO	TITLE	PAGE
1.1		0
1.1	Data for literature Review	9
3.1	Structure of Responsibilities in Construction Project	s 37
3.2	Legalese Problems in Regarding to PWD 203 A	
	Standard Form	44
3.3	Summary of Problems of Clarity	50
3.15	Methods for Improving the Understanding of	
	Construction Contract	51
4.1	Major Problems influenced the difficult to	
	understand the Standard Form of Contract	58
4.2	Summary of finding	74

LIST OF FIGURES

FIGURES NO	TITLE	PAGE
1.1	Flow chart of research methodology	11
2.1	Decision Diagram for Disputes Involving	
	Interpretation	22
4.1	How Respondent found the JKR 203A Standard	
	Form of Contract	57
4.2	Does the contractor or subcontractor lose the entitle	ment
	to extension of time if he fails to submit appropriate	
	notices and detail as required by the contract	62
4.3	When contractor fails to serve a proper claims notice	e
	to the causes of delay can S.O legitimately reject	
	the claims	65
4.4	The number of respondent's opinion if there was	
	discrepancy between the drawing and specification	67
4.5	Analysis for the opinion of respondents about the	
	language of contract being "Simple Plain English"	71
4.6	How often the respondents refer to standard	
	Form of contract when doing the construction work	73

LIST OF APPENDIX

APPENDIX NO	TITLE	PAGE
A	Structured Interview	89

CHAPTER 1

INTRODUCTION

Construction projects are undertaken by many parties, all with their own goals and motivations which may not always be aligned. The alignment is normally pursued through a contract between parties to agreed goals. A contract is a voluntary agreement between two or more parties, and the purpose of a contract is to set out the rights, responsibilities, and liabilities of the parties. The contract allocates risk among the parties. Contracts may be formal and written, with fairly explicit described behaviors and understanding. Different groups of contracting parties, and also people within the same group, interpret contract clauses in different ways.

Construction contracts are usually made in writing, using one of the standard forms available. The use of standard form provides many advantages, and although standard forms are not mandatory in practice their used should be encouraged in all possible circumstances. Clearly, the construction process as a whole has to become more efficient, and it is important that the standard form of contract be used intelligently to support this. ²

¹ Ashworth, A. Contractual Procedures in the Construction Industry. London and New York: Longman, (1986), p. 8.

² Chow, Kok Fong. Construction Industry Trends in The Asia- Pacific and Their Implications for Standard Forms of Contracts. 1st International Conference on Asia-Pacific Construction Law. Kuala Lumpur:PWTC, June 1991.

Standard Form of contract is in a printed form and published by an authoritative body of the industry, which body is recognized by both parties. Historically, the initial set of Standard Forms was drafted by the various government agencies for works in the public sector. In Malaysia, the earlier version of PWD form was modeled on the RIBA Form of Contract 1931, later revision 1983 and the latest 2007. Due to progress of development projects, many other professional bodies published their own version of standard forms to suit the current development and modernisation and variation of procurement methods i.e. IEM was first published in 1989 and PAM in 1969 (Lian, Im and Kheng, 2000).

According to Nayagam and Pathmavathy (2005), "Standard Form construction contracts provide a basic legal framework identifying the rights, obligations and duties of the parties, establish of the powers and duties of the contract administrator"

The adversarial nature (Cheung et al., 2006; Cheung and Yiu, 2007) and inherent risks (El-Sayegh, 2008) of the construction industry contributes to the germination of construction disputes. Construction disputes are caused by many sources (Cheng et al., 2009). One of the main sources is poor understanding of contract documents. Interpretation error and misunderstanding of construction contracts can be traced to the illegibility of contract clauses (Broomeand Hayes, 1997; Cutts, 2004; Styllis, 2005) and legalese (Cutts, 2004; Candlin et al., 2002), which results in disagreements between the contracting parties on their rights and responsibilities.

In Malaysia, the complexity of contract documents has influence the ways contracting involving parties in understands the contract documents. A study done by Mohamad and Zulkifli (2006) stated that the contractor has to be well verse in interpretation of condition and requirements of the contract due to the lack of the understanding in contract documentation.

In traditional contracts, contractual and flexibilities that are required in ever changing construction scenarios are not supported in order to face uncertainty and complexity. It is very often long and complex documents. Consequently, disagreement or disputes could arise regarding contractual obligations or expectation. When one party feels that the contractual obligation or expectation has not been met, the disputes may occur (Semple *et al*, 1994). Thus construction contract plays a crucial role in disputes resolution.

For instance, the survey done by Sambasivan and Yau (2006) found that the factor of mistakes and discrepancies in contract document is one of the causes of delay to project in Malaysia Construction industry.

An example of the issue of understanding occurred in the case of Majlis Perbandaran Seremban vs Maraputra Sdn Bhd³. The case was a dispute on the arbitrator's rights and powers to order. In their arguments, the applicant contended that the arbitrator had erroneously interpreted clause 54 of the conditions of contract by concluding that only the contractor may refer disputes to arbitration and not the employer. The judge held that the wording of clause 54 was clear and unambiguous. Besides, the arbitrator's reasoning on his decision on the issues was sound, cogent and clear. The learned judge concluded that a wrong interpretation by the applicant eventually led to the dispute with the respondent. Therefore, the significance of this case is that the correct interpretation or understanding of contract clauses by the contracting parties is vital to avoid disputes since contract clauses are already clear and unambiguous.

³ [2004] 5 MLJ 469.

In Malaysian environment, contract clarity is an undisputable necessity, whereby the quality of being expressed clearly is a must for contractual agreements. There are many reasons for this 4

- English is not the first language for Malaysians whose mother tongues are Malay, Chinese and Tamil. So, simplified language structure is important for better understanding of contracts (Styllis, 2005)
- The style of writing including the use of passive voice, repetition, too long sentences (more than 50 words), incorrect or too much use of 'shall', and many cross-references can be a barrier to achieving clarity in contract form (Styllis, 2005).

Besides, the legalese problem also takes place in the contract's issues, which may mislead the true meaning of the particular clause and cause the people not understand at all. Not all people can understand the meaning of the contract forms. Legalese often dumbfounding to the meaning or need of the contract condition (Martin, 1993). According to Broome and Hayes, 1997, plain English is more effective in delivering the message for constructing compare to those legal language or phases.

In addition, the use of formal and technical language in legal documents upsets interpretation (Feinman, 2003). Legal drafters have done most damage by cloaking the mysteries of contracts with unusual language and technical legal terms (Cutts, 2004). The imperfections of legalese are chiefly due to the unnecessary length and complexity. Sometimes, there maybe more serious errors that go uncorrected (Hill, 2001) because the interpretation of the contract clause was not actually written or meant in the contract (Thomas et al., 1994). Legalese would cause the contracting parties to fail to appreciate the genuine contractual rights and obligations in a project

⁴ Rosli Mohamad Zin. *A case study into the language structure of construction standard form in Malaysia*. Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi Malaysia, Skudai 81310, Johor, Malaysia. International Journal of Project Management 28 (2010) 601–608

(Semple et al., 1994). In the end, it disturbs the working atmosphere of the project (Wang and Yang, 2005).

Consequently, legalese is a serious problem and could lead to incorrect interpretation. Semple *et al* (1994) maintained thto at in order avoid construction disputes the understanding of the contractual terms and the meanings of the contract anticipation.

Construction contracts are written agreements signed by the contracting parties to define their relationships and obligations (Zaghloul and Hartman, 2003). The conditions of the contract are crucial to ensure that the parties abide by rules and regulations (Semple et al., 1994). The poor understanding of the construction contract may lead to construction disputes, as highlighted by a number of previous researches (Thomas et al., 1994; Semple et al., 1994; Broome and Hayes, 1997; Mohamad and Zulkifli, 2006). It is simply because the parties could not meet their contractual expectations (Harmon, 2003).

In conclusion, once the contracting parties understand and agree to the clauses stated in the contract, the parties would perceive the importance of their contractual obligations and rights as required in the contract.

1.1 Statement of Problem

Standard Forms of contract have been use in the Malaysian construction industry as a means to expedite contractual and legal duties for the clients who wish to avoid expensive and complex legal endeavor to arrive at an agreement with their contractor. Various forms have been drafted by various professional bodies and organization, both locally and internationally, to meet the demands of local construction market for standard form.⁵

Standard Form of contracts are generally written or commissioned by government agencies for use on the contract that they are sponsor, or by professional institute which takes it upon itself to represent its private sector clients by producing for adoption by its member practitioners. The standard form is drafted by the legal people and will be implementing by the technical background people that has a little knowledge about the legal aspect. The problems are do the technical background such as an architect, Quantity Surveyor, Engineer and etc understand the contract form requirement? Besides that, this research is to know the level of understanding standard form of contract among the construction parties. In fact, the understanding problems are caused by the legalese (Martin, 1993) and clarify of contract clause (Broome and Hayes, 1997), which has brought a lot of disagreement and disputes regarding the contractual obligations the construction practitioners. However, through better interpretation and understanding of the contract requirements, the disputes arose may be eliminated.

⁵ Kwang, Q.W.Adequency of Quality Provisional in Standard Forms of Local and International Construction Vontract. UNIMAS E-Journal of Civil Engineering, Vol.1 issue 1/August 2009

⁶ Nigel M Robinson. Construction Law in Singapore and Malaysia. Butterworths Asia.1996. p17

1.2 Research Objectives

The objective of the research is to determine the level of understanding the contract requirements of PWD 203A (Rev. 2007) Standard Form of contract among the construction professional.

1.3 Scope of Research

The scope of this research will cover the following areas:-

- a) Only construction cases will be discussed in the research.
- b) This research study on the current contract practice in Malaysia
- c) Structured interview involve the profession of Engineer, Contractor and Quantity Surveyor with experienced within five (5) to ten (10) years in `construction industry to know their level of understanding of PWD 203A (Rev. 2007)

1.4 Significance of Research

This research is very important to know the level of understanding of Standard form of contract among the construction parties. This information is important to know either all the construction parties fully understand the contract form or not.

Furthermore, this research can give the information to client about the importance to understanding of standard form of contract in construction industry. It is to ensure any disputes among the construction parties.

1.5 Research Method

A systematic process of conducting this research had been organised in order to achieve the objective of the study. There are a few stages in completing the research that will be followed, which involve identifying the issue, literature review, data collection, data analysis, conclusion and suggestion.

1.5.1 Stage 1- Identifying the issue

The issue of the study arises from the intensive reading of articles, journals and newspaper cutting from the UTM library. Discussion with lecturers and friends also had been done to get an idea of the research topic. From the issue, the objectives of the study have been identified. This study is carried out to determine the level of understanding the contract requirement of Standard Form of contract among the construction professional.

1.5.2 Stage 2- Literature review

After the issue and objectives of the study have been identified, literature review regarding to the study field will be collected to give more understanding about the topic in order to achieve the objectives of the study. Information and data is collected from the books, journals, research papers, reports, newspaper and internet.

	Types of Data	Methods
Library	 Standard Form of General 	Books, Journal,
research	 Merits and Demerit of Standard Form of Contract 	
	 Understanding the Contract requirement of Standard Forms 	
Field	■ Determine the level of	Structured Interview
Research	understanding the contract requirement of Standard Form of contract	

Table 1.1: Data for literature Review

1.5.3 Stage 3- Data collection

After identifying all the background of study and relevant issues through literature review, the data will collect through the structured interview. All respondents are well respected in various fields of specialization. The following is just a brief account of the professionals of their various background and professional affliction and they have an experience for this field within 5 to 10 years. There were ten (10) persons of professional appointed as expert will help in the structures interview.

1.5.4 Stage 4- Data analysis

After the data have been collected, the analysis will be conducted to determine the level of understanding the contract requirement of standard form contract among the construction parties. The pie chart, bar graph and table will be created. The level of understanding of standard form contract will be measured.

1.5.5 Stage 5- Conclusion and recommendations

After the discussions have been made from previous stage, then the conclusion will be made from the analysis. After presenting the research findings, further study will be suggested. It also involves the process of review the whole process of the study to identify whether the objective of the study have been achieved.

1.6 Research Methodology Flow

The research methodology of this study is shown in Figure 1.1

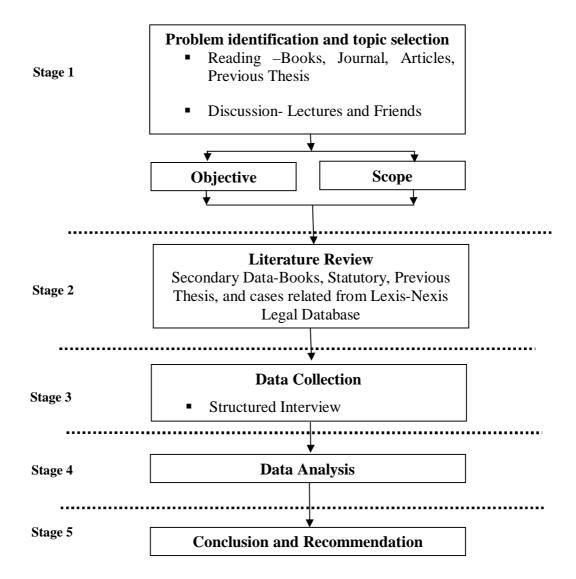


Figure 1.1: Flow chart of research methodology

1.7 Organization of Research

The dissertation consists of five chapters. The brief descriptions of each chapter are as follows:

Chapter 1: Introduction

This chapter presents the overall content of the whole project writing. It introduces the subject matter, the problems that are purported to solve. The objective is specified with an appropriate research method to achieve them.

Chapter 2: The Standard Form of Contract

This chapter with the overview the standard Form of contract. It is include the merit and demerit of standard form of contract.

Chapter 3: The understanding in construction contract.

This chapter will focus on the understanding the contract requirement and the terms in construction contract.

Chapter 4: Results and Analysis

This chapter analyzes the results from structure interview among the construction parties about their understanding of standard form of contract.

Chapter 5: Conclusions and Recommendation

This chapter presents the conclusions for the overall dissertation.

1.8 Conclusion

Contract is an ongoing process. It is a delusion that a perfect standard form of contract can ever be achieved. In this chapter, background of the study was discussed in detailed. The natures of using the standard form of contract in construction industry were illustrated. Aim and objective were defined in this chapter.

The next chapter will focus on the discussion about the Standard Form of contract in construction Industry. It will be cover on the purpose and the merit and demerit of standard form of contract.

REFERENCES

- Abdul Aziz Hussin. (2004). *Aspek Undang-Undang Dalam Pengurusan Projek Pembinaan*. Pulau Pinang: Universiti Sains Malaysia.
- Abrahamson, M. W. et al. (1998). FIDIC Conditions of Contract for Work or Civil Engineering Construction, Fourth Edition. *Proceedings of the Institution* of *Civil Engineers* 84, part 1.
- Andrew, Phang Boon Leong. (1998). Cheshire, Fifoot and Furmston's Law of Contract, Second Singapore and Malaysia Edition. Butterworth Asia.
- Ashworth, A. (1986). *Contractual Procedures in the Construction Industry*. London and New York: Longman,
- Bevin Netto. (1982). Dispute Arising Out of the Main Contract and Subcontract.

 Seminar on Avoiding Disputes in Construction Contracts. Institute of International Research.
- Brand, D. "Bespoke" or "Off the Peg". Journal of Construction Engineering and Management @ ASCE
- Braun, HB. *Policing Standard Form Contracts in Germany and South Africa: A Comparison*. University of Cape Town.

Cesil, Ray. (1992). *Risk Management for Architects*. RIBA Indemnity Research, London.

Chow, Kok Fong. (1991). Construction Industry Trends in The Asia- Pacific and Their Implications for Standard Forms of Contracts. 1st International Conference on Asia-Pacific Construction Law. Kuala Lumpur:PWTC.

Contract Act 1950 section 2(h)

Dato' Seri Visu Sinnadurai. (2003). *Law of Contract*. 3rd Edition. Lexis Nexis, Butterworth.

Dennis F Turner. (1977). Building Contract -A Practical Guide. 3rd Edition.

Dennis F Turner. (1984). Standard Contract for Building.

Holdsworth, WS. (1956). History of English Law. 7th Edition. London: Methuen.

Kwang, Q.W. (2009). Adequency of Quality Provisional in Standard Forms of Local and International Construction Vontract. UNIMAS E-Journal of Civil Engineering, Vol.1 issue 1.

Llyod L. Rich. *Get in Writing: Why You Need a Valid Publishing Contract.* www.publaw.com/sponsor

Managing Building Contracts-Some (2004). "Back to Basics" Tips. Construction Bulletin, www.rolits.com.

McGuinness. (2004). *The Law and Management of Building Subcontracts*. United Kingdom: Anthena Press.

- Melissa, Chan Yuet Li. (2006). New Engineering cOntract (NEC) 1993 as Radical Changes to the Malaysian Standard Forms of Contract. Universiti Teknologi Malaysia.
- NEC3 Engineering and Construction Subcontract. (2005). (3rd Edition).
- Nigel M Robinson. (1996). Construction Law in Singapore and Malaysia. Butterworths Asia.
- Pike, Andrew, (1993). Practical Building Forms and Agreements. E & FN Spon, London.
- Priestley, Clive. (1994). *British Construction: In Pursuit of Excellence*, a report to Sir Christopher Foster, chairman of the Construction Industry Sector Group. (Business Round Table, London).
- Prof. Michael P. Furmston. (1991). *Problem of International Construction Contracting*.

 1st International Conference on Asia-Pacific Construction Law, Putra World Trade Centre Kuala Lumpur.
- Robinson, Nigel M. (1998). *Construction Law in Singapore and Malaysia*. Butterworth: Singapore, Malaysia, Hong Kong.
- Rosli Mohamad Zin. (2010). A case study into the language structure of construction standard form in Malaysia. Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi Malaysia, Skudai 81310, Johor, Malaysia. International Journal of Project Management 28.
- Rosli Abdul Rashid. (1988). The Liability of Construction Project Manager and the Design Teams to the Clients and Buyers. University of Reading.

- Sai, On Cheung, Kenneth, T.W., and Pui Shan Chim. (2006). *How Rational Construction Contracts?*. Journal of Professional Issues in Engineering Education and Practice.
- Sr. Noushad Ali Naseem Ameer Ali. Accessibility of Legal Documents in the Construction Industry-A Plea for Sanity.
- Sr. Noushad Ali Naseem Ameer Ali. (2006). Seminar on Model Terms of Construction Contract for Sub-contract Work 2006. Puteri Pacific Hotel, Johor Bahru.
- Sundra Rajoo. (1999). *The Malaysian Standard Form of Building Contract (The PAM98 Form)*. 2nd Edition. Malaysian Law Journal Sdn. Bhd.
- Sundra Rajoo. The Pam 2006 Standard Form Of Building Contract A Change In Risk Allocation.
- Syed Ahmad Alsagoff. (2003). *Principle of the Law of Contract in Malaysia*. Malaysian Law Journal Sdn. Bhd.
- Teresa Cheng, Evia Wong and Gry Soo. (2004). *Construction Law and Practice in Hong Kong*. Sweet & Maxwell Asia.
- Thomas, R. (1993). Construction Contract Claims. London: MacMillan.
- Thomas, H.R, *Interpretation of Construction Contracts*. Journal of Construction Engineering and Management.
- Turner, A. (1990). Building Procurement. Macmillan Education Ltd.

Vohrah, B and Wu, Min Aun. (2000). *The Commercial Law of Malaysia*. Pearson Malaysia Sdn. Bhd, Selangor.

Treitel, G.H. (1995). The Law of Contract. London: Sweet & Maxwell.

Thompson, I., Cox, A. and Anderson, I. (1998). Contracting Strategies in the Project Environment. *European Journal of Purchasing and Supply Management* 4.