

**ESTIMATE IN FORMATION OF CONSTRUCTION CONTRACT**

**EZATUL SHARIDA BINTI AHMAD TERMIZI**

**UNIVERSITI TEKNOLOGI MALAYSIA**

**ESTIMATE IN FORMATION OF CONSTRUCTION CONTRACT**

**EZATUL SHARIDA BINTI AHMAD TERMIZI**

**A thesis submitted in partial fulfillment of the  
requirements for the award of the degree of  
Master of Science in Construction Contract Management**

Faculty of Built Environment  
Universiti Teknologi Malaysia

SEPTEMBER 2013

*This work specially dedicated to my beloved husband, parents, sisters & brothers,  
who had selflessly supported my endeavours.*

*Ezatul Sharida*

## ACKNOWLEDGMENTS

A debt of gratitude is owed to many individuals who have given me their unconditional help, tolerance and knowledge in writing and completing this master dissertation. In particular, I wish to express my highest gratitude to my supervisor, Encik Jamaludin Yaakob and En Norazam Othman for his patience, guidance, advice and support in order to complete this master dissertation.

I am also very thankful to all the lecturers who are involve in conducting the Master of Science in Construction Contract Management course, for their patience and kind advice during the process of completing the master dissertation. Next is my deeply grateful to my family for their unconditional love and care through out the years and my lovely fellow postgraduate course mates and friends who has given me morale support to complete this dissertation should also be recognised. Finally, I would also like to extend my sincere appreciation to all who have provided assistance at various occasions. Their views and tips are useful indeed. Unfortunately, it is not possible to list all of them in this limited space.

## ABSTRACT

Offers and acceptances are the basic process in the formation of contracts. It is a common practice in the construction industry for employers to request contractors, subcontractors and suppliers to give quotations or estimates. The main purpose of estimates in the context of construction industry is to enable a client/employer to know his financial commitment before deciding whether or not to proceed with a land development project. Generally the term estimate is always treated as estimate in its ordinary dictionary meaning. The practice of using estimates may give rise to disputes when the actual costs of the works exceed the amount in the estimates. The main issue is therefore whether estimate is a firm offer that may be treated as basis for valid acceptance in the formation of an enforceable contract. For example, in a leading case of *Crowshaw v. Pritchard* the court held there was an enforceable contract based on an estimate. The objective of this research is therefore to identify whether estimates are valid offers that may be a basis for a valid acceptance in formation of construction contract. The research is carried out by examining the construction contract cases that relate to the use of estimates. A total of six leading cases from the United Kingdom, New Zealand and Australia were identified. The analysis of those cases revealed that only one case from Australia where the Supreme Court had held that the estimate used in the formation of the contract was not an offer. In all the other five cases from the United Kingdom and New Zealand, the courts in those countries had held that the estimates were valid offers and the makers were contractually bound by their estimates. It appears that the main reason for the decision is, when an estimate is given by a skill and experienced person in a particular trade, albeit negligently, and the recipient relies on it

and is induced by it and they enter into a contract, that person making the estimate is contractually bound by his estimate. If the actual cost of the work exceeds the estimate, he may only recover the estimated amount. Therefore, an estimate could or could also not be an offer in formation of contract due to several events. If the maker intends that the estimate is a mere estimate, there must be clear expression to that effect. Contractors and subcontractors are advised to be extra careful when asked to give estimates. If they intend the estimate is to be treated in its ordinary meaning there must be clear words expressly stated in the document to that effect. If this is not properly stated, disputes may arise when the actual cost of the work is more than the estimate. Finally, it is submitted that even if an estimate is meant to be an estimate, a contractor making the estimate may be held liable to the recipient if the estimate is grossly inaccurate and the actual cost greatly exceeds the estimated amount. Therefore a contractor must fully utilise his experience and expertise in making the estimate. He must not be negligent.

## ABSTRAK

Tawaran dan penerimaan adalah proses asas dalam pembentukan sesuatu kontrak. Adalah amalan biasa amalan biasa dalam industri pembinaan bagi pemilik untuk meminta kontraktor, sub-kontraktor dan pembekal untuk memberikan sebutharga atau anggaran. Tujuan utama anggaran dalam konteks industri pembinaan adalah untuk membolehkan pelanggan, pemilik atau majikan mengetahui komitmen kewangan mereka sebelum membuat keputusan sama ada untuk meneruskan sesuatu projek. Secara umumnya anggaran harga dianggap hanya sebagai sesuatu anggaran. Amalan menggunakan anggaran boleh menimbulkan pertikaian apabila kos sebenar kerja-kerja yang melebihi jumlah dalam anggaran . Isu utama adalah sama ada anggaran itu adalah satu tawaran yang boleh dianggap sebagai asas untuk penerimaan sah dalam pembentukan kontrak. Sebagai contoh, dalam kes utama *Crowshaw v Pritchard* mahkamah memutuskan terdapat kontrak yang dikuatkuasakan berdasarkan anggaran harga yang diberikan. Objektif kajian ini adalah oleh itu untuk mengenal pasti sama ada anggaran harga adalah tawaran yang sah yang boleh menjadi asas untuk penerimaan yang sah dalam pembentukan sesuatu kontrak pembinaan. Kajian ini dijalankan berdasarkan kes-kes kontrak pembinaan yang berkaitan dengan anggaran harga. Sebanyak enam kes terkemuka dari United Kingdom , New Zealand dan Australia telah dikenal pasti. Analisis daripada kes-kes menunjukkan bahawa hanya satu kes daripada Australia di mana *Supreme Court* telah memutuskan bahawa anggaran yang digunakan dalam pembentukan kontrak itu bukan tawaran. Berbeza dengan lima kes dari United Kingdom dan New Zealand, mahkamah-mahkamah di negara tersebut telah memutuskan

bahawa anggaran harga yang ditawarkan adalah sebagai tawaran yang sah dan pembuat kontrak terikat dengan anggaran harga yang telah diberikan. Walaupun anggaran harga tersebut terdapat kesalahan dan ini dinyatakan sebagai cuai, mahkamah memutuskan ianya adalah sebagai tawaran kerana anggaran harga tersebut diberikan oleh orang berpengalaman dan berkemahiran. Anggaran harga yang diberikan membuatkan penerima bergantung kepada anggaran dan seterusnya mengikat kontrak. Jika kos sebenar kerja melebihi anggaran harga, pembuat anggaran harga hanya boleh mendapatkan kembali amaun yang dianggarkan. Terdapat beberapa perkara yang membolehkan anggaran harga tersebut diterima sebagai tawaran yang sah atau tidak. Jika pembuat anggaran bercadang bahawa anggaran adalah anggaran semata-mata, mesti ada ungkapan yang jelas bagi maksud itu. Kontraktor dan sub-kontraktor dinasihatkan supaya lebih berhati-hati apabila diminta untuk memberi anggaran harga. Jika kontraktor atau sub-kontraktor membuat anggaran harga dengan makna yang biasa iaitu hanya semata-mata anggaran mesti ada perkataan yang jelas dinyatakan dalam dokumen. Jika ini tidak dinyatakan dengan betul, pertikaian mungkin timbul apabila kos sebenar kerja-kerja yang lebih daripada anggaran harga. Apabila anggaran yang diberikan tidak tepat dari kos sebenar, kontrakto ahrus bertanggungjawab kepada penerima walaupun dalam niat kontraktor hanya sekadar memberi anggaran. Oleh yang demikian, seharusnya sebagai kontraktor perlu menggunakan pengalaman dan kepakaran bagi mengelakkan kecuaiian berlaku.



**TABLES OF CONTENTS**

<b>CHAPTER</b>	<b>TITLE</b>	<b>PAGE</b>
	DECLARATION	iv
	DEDICATION	v
	ACKNOWLEDGEMENT	vi
	ABSTRACT	vii
	ABSTRAK	ix
	TABLES OF CONTENT	xi
	LIST OF ABBRIEVATIONS	xiv
	LIST OF CASES	xvii
<b>1</b>	<b>INTRODUCTION</b>	
	1.1 Introduction	2
	1.2 Background of Research	2
	1.3 Problem Statements	4
	1.4 Objective of Research	6
	1.5 Scope of Study	7
	1.6 Significance of Study	7
	1.7 Research Process and Method of Approach	8

## **2           FORMATION OF CONSTRUCTION CONTRACT**

2.0	Introduction	11
2.1	Establishing an Agreement	13
2.2	Offer	17
	2.2.1 Introduction	17
	2.2.2 Requirements for an Offer	18
	2.2.3 Offer is Distinguish from Invitation to Treat	19
2.3	Offers Distinguished from Request for Information	26
2.4	Acceptance	27
	2.4.1 Introduction	27
	2.4.2 Requirements of Acceptance	29
	2.4.3 Continuing Negotiations	34
	2.4.4 The Battle of Form	35
	2.4.5 Counter-Offer	36
	2.4.6 Prescribed Method of Acceptance	38
2.5	Conclusion	39

## **3           ESTIMATE**

3.0	Introduction	46
3.1	Definiton of Estimate	46
3.2	An Overview to Contract Formation Process	49
3.3	Estimates for Different Types of Contract	54
3.4	Quotation	67
3.5	Role of Estimating in Construction Industry	
3.6	Principle of Estimate	67
	3.6.1 Estimate as Basis Contract	
	3.6.2 Works Exceed Estimate	

<b>4</b>	<b>CASES ANALYSIS</b>	
4.0	Introduction	57
4.1	Estimate as Valid Offer	58
4.2	Estimate as Not Offer	66
<b>5</b>	<b>CONCLUSION</b>	
5.0	Introduction	72
5.1	Summary of Research Findings	73
5.2	Research Constraints	76
5.3	Future Research	76
	<b>REFERENCES</b>	77
	<b>BIBLIOGRAPHY</b>	79

**LIST OF ABBREVIATIONS**

AC	Law Report: Appeal Case
ACA	Association of Consultant Architects
AGC	Associated General Contractor
BCIRS	Building and Construction Industry Reform Strategy
BLR	Building Law Reports, UK
CIC	Construction Industry Council
CIDA	Construction Industry Development Association
CII	Construction Industry Institute
CIIA	Construction Industry Institute Australia
EWCA	England and Wales Court of Appeal
EWHC	England and Wales High Court
ICE	Institution of Civil Engineering, UK
JCT	Joint Contract Tribunal, UK
MBA	Master Builder Association Incorporation
M4I	Movement for Innovation
NBQB	New Brunswick Queen's Bench
NE	North Eastern
NEDO	National Economic Development Office
NEC	New Engineering Contract
NSW	New South Wales

PPC	Project Partnering Contract
SCR	Supreme Court of Canada
TCC	Technical and Construction Court
TPC	Team Partnering Contract
TQM	Total Quality Management
UK	United Kingdom
UKHL	United Kingdom House of Lords
USA	United States of America
VPN	Virtual Private Network
WLR	Weekly Law Reports

## LIST OF CASES

### CASES

Adams v Lindsell [1818] 1 B.&A;d 681

A. Davies & Co. (Shopfitters) Ltd v. William Old Ltd [1969] 67 LGR 395

Ayer Hitam Tin Dredging Malaysia Bhd. v YC Chin Enterprise Sdn. Bhd [1994] 2 MLJ 754

Boulton v. Jones [1857] 2 H& N 564

Brinkibon Ltd v. Stahag Stahl Und Stahl Warenhandels-Gesellschaft m.b.H [1983] 2 AC 34

Brogden v. Metropolitan [1877] 2 App. Cas. 666

B.R.S. v. Arthur V. Crutchley Ltd [1968] 1 All ER 811

Butler Machine Tool Co. Ltd. v. Ex-Cell-O Corporation (England) Ltd [1979] 1 WLR 401

Cana Construction Co. Ltd v. Her Majesty the Queen, [1974] S.C.R. 1159

Carlill v Carbolic Smoke Ball Co [1892] 2 QB 484

Cheng Keng Hong v Government of The Federation of Malaya [1966] 2 MLJ

Chillingworth v Esche [1924] 1 Ch 97

Chin Ah Keow @ Chin Lai Sitt v Anggun Pintas Sdn. Bhd. & Ors

Coelho v. The Public Services Commission [1964] MLJ 12

Courtney and Faibaim Ltd v. Tolaini Brothers (Hotels) Ltd and Another [1973] 1 All ER176

Crowshaw v. Pritchard [1899] 16 TLR 45

Dickinson v. Dodds [1876] 2 Ch. D. 463

Fisher v Bell [1961] 1 Q.B. 394

Gibson v. Manchester City Council [1979] 2 WLR 294

Grainger & Son v Gough [1896] AC 325

Harris v Nickerson [1873] L.R. 8 (Q.B.) 286

Hart v. Mills [1846] 15 LJ Ex 200

Harvela Investments Ltd v Royal Trust Co of Canada [1986] AC 207

Hyde v Wrench [1840] 3 Beav. 334

J. & J.C. Abrams Ltd. v. Ancliffe[1981] 1 NZLR 244

Jackson v. Turquand [1869] L.R. 4 H.L. 305

Jaeger Bros Ltd. v. J.&A. Mcmorland [1902] 10 S.L.T. 63

K.M. Young Ltd v. Cosgrove [1963] NZLR 967, New Zealand.

Kyren Pty Ltd. v Built Projects [2006] SASC 204

Lawrence KL Chin v. Sri Somaha (S) Sdn Bhd, [2010] 7MLJ 341

Low Kar Yit & Ors. v. Mohd Isa & Anor [1963] MLJ 165

Macon Works & Trading Sdn. Bhd. v Phang Hon Chin & Anor [1976] MLJ 177

May and Butcher v The King [1934] 2 KB 17 (HL)

McManus v Fortescue [1907] 2 KB 1

Money Penny v. Hartland & Ors. [1826] 2 Car & P 378

New Zealand Shipping Co Ltd v A M Satterthwaite & Co Ltd [1975] AC 154 (PC) 167

North West Leicestershire D.C. v. East Midlands Housing Association [1981] 1 W.L.R.

O.T.M. Ltd. v. Hydranautics [1981] 2 Lloyd's Rep. 2111, 215 26

Partridge v Crittenden [1968] 2 All ER 421

Pharmaceutical Society of Great Britain v Boots [1952] 2 QB 795

Peter Lind & Co. Ltd v. Mersey Docks & Harbour Board [1972] 2 Lloyd's Rep. 234

Powell v. Lee [1980] 99 L.T. 284

Preston Corp. Sdn. Bhd. v. Edward Leong & Ors. [1982] 2 MLJ 22



Rental Equipment Inc v. McDanel Builders Inc 91 Cal App. 4<sup>th</sup> 445 (2001)

Seaton Brick Co. v Mitchell [1900] 2 F (5<sup>th</sup> Series)550

VeraSun Fort Dodge LLC v. Industrial Air Technology Corp and Industrial Air Technology Corp v. John Zink Company, (2008) U.S. Dist Lexis 99292 (N.D. Iowa 2008)

Wilkie v London Transport Board [1947] 1 All ER 258

Wolf and Wolf v Forfar Potato Co [1984] S.L.T. 100

## Chapter 1

### Introduction

#### 1.1 Background of Research

Offer and acceptance are essentials to form an agreement between parties as according to Section 2 in Contract 1950. An offer is a proposition put by one person to another person made with the intention that it shall become legally binding as soon as the other person accepts it.<sup>1</sup> To form an agreement, the offer must be accepted and acceptance is the expression, by words or by conduct, of assent to the terms of the offer indicated by the offeror.<sup>2</sup> Contract Act 1950<sup>3</sup> uses the word of 'proposal' which has the same meaning as "offer". According to Section 2(a), '*when one person signifies to another his willingness to do or to abstain from doing anything, with a view to obtaining the assent of that other to the act or abstinence, he said to make a proposal.*' Furthermore, according to Section 2(b), when the person to whom the proposal is made signifies his assent thereto, the proposal is said to be

---

<sup>1</sup> Max Young, (2010), Understanding Contract Law, New York, Routledge-Cavendish, Pp 9.

<sup>2</sup> Jack Beatson, (2002), Anson's Law of Contract, 28<sup>th</sup> Edition, New York, Oxford University Press.

<sup>3</sup> (Act 136), Contracts (Amendment) Act 1976 (A329)&Government Contracts Act 1949 (Act 120)

accepted. A proposal, when accepted, becomes a promise.<sup>4</sup> Every promise and every set of promises, forming the consideration for each other, is an agreement.<sup>5</sup> Finally, an agreement enforceable by law will turn into a contract.<sup>6</sup> It will go the same with construction contracts which is governed by the ordinary contractual rules of offer and acceptance<sup>7</sup>. Acceptance is a final unqualified expression of assent to all the terms of an offer.<sup>8</sup> Besides that, according to the Section 7 Contract Act 1950, acceptance must be absolute and unqualified. It brings meaning that acceptance must be made exactly the same terms as proposed without any modification.

Person involved under construction industry must be clear distinction between an 'offers' and 'invitation to treat'. The significance of this distinction is that, whereas an offer will turn into a contract immediately on its 'acceptance' by the person to whom it is addressed, an 'invitation to treat' has no such status.<sup>9</sup> It is merely a stage in negotiations, inviting the other party to make an offer.<sup>10</sup> Invitation to treat is *'an expression of willingness to negotiate. A person making an invitation to treat does not intend to be bound as soon as it is accepted by the person to whom the statement is addressed'*.<sup>11</sup> Followings are the grey area whether it constitutes as "invitation to treat" or as an "offer"; advertisement, display of goods, tender, estimate and quotation, auctions and tickets.<sup>12</sup>

Clearly when contractor submitted his estimate to client with a certain amount to construct and complete a structure, it is mere invitation to treat.<sup>13</sup> However, when contractor issues an estimate to client, it is said clients accepts the proposal from contractor with unfixed amount, material and labour. Therefore, important to make distinction between offer and invitation to treat for making an establish agreement.

---

<sup>4</sup> Section 2(b), Contract Act 1950.

<sup>5</sup> Section 2(e), Contract Act 1950.

<sup>6</sup> Section 2(h), Contract Act 1950.

<sup>7</sup> Ir. Harbans Singh K.S. 'Engineering and Construction Contracts Management: Law and Principles' at P61 to 81.

<sup>8</sup> Paul Richards, (2007), Law of Contract, 8<sup>th</sup> Edition, England, Pearson Education Limited, and Pp.26.

<sup>9</sup> John Murdoch and Will Hughes (2001), Construction Contract: Law and Management, 3<sup>rd</sup> Edition, New York, E&FN Spon, Pp. 110.

<sup>10</sup> *Supra*, Note 20, Pp.110

<sup>11</sup> Andrew Burrows, Casebook on Contract (Hart Publishing, 2007) Ed.

<sup>12</sup> Mindy Chen, (2008), Contract Law, 2<sup>nd</sup> Edition, New York, Oxford University Press.

<sup>13</sup> John Murdoch and Will Hughes, *supra* at Pp.111.

## 1.2 Problem Statement

In *Crowshaw v. Pritchard*,<sup>14</sup> owners wished to make additions to their property. They wrote to builder as follow: *‘We should be glad to know whether you would be willing to give us a tender in competition for the work. No quantities will be supplied, and we do not bind ourselves to accept the lowest or any tender’*. The builder responded: *‘Estimate-Our estimate to carry out the sundry alterations to the above premises according to the drawings and specifications amounts to the sum of £1,230.’* The owner replied and accepted the builder’s offer to execute for the sum of £1230 the required building works. The builder then said that a mistake had been made and that in the circumstances the estimate must be withdrawn. The owners employed another builder at a higher price and sought to recover the difference in price as damages for breach of contract.

Judge held in the case, there is a binding contract enforceable against the builder. The builder argued that its ‘estimate’ was not a binding tender but only a ‘guide price’. The word ‘estimate’ had been advisedly used so as to avoid a final and binding agreement, which would have resulted from the use of words such as ‘we offer to execute the work’. Evidence was given by builders to show that this was a distinction commonly made in the building trade. The owners’ letter was an invitation to tender in competition for the works. It was intended that a price would be stated for the carrying out and completion of the works. The specification had been sent out so that this might be accomplished. The ‘estimate’ was in law an offer which was accepted by the owner’s letter. There was no special custom in the building industry which would prevent the estimate in letter from being capable of acceptance and thus forming a binding contract.

---

<sup>14</sup> (1899) 16 TLR45

In case of *K.M Young Ltd v. Cosgrove*<sup>15</sup>, Young was an earth-moving contractor who did work in connection with Cosgrove's new house. The contractor claimed £400 for work done. The owner refused to pay this amount and argued that the contractor had said the work could be done for between £100-£200, and probably less if a suitable local place could be found for disposal of spoil. There was conflicting evidence from the parties as to whether any discussion took place as to the likely cost of the work. The magistrates' court gave judgment to Young for £200. Young appealed to the Supreme Court. One of issue in the case was the estimate to be treated as the basis of a contract between Young and Cosgrove? Judge held, estimate could not treat as the basis of a contract. Cosgrove was quite clear that the amount quoted was an estimate, in the sense of a 'guide-price' not a quotation or offer that could be accepted to form a lump sum contract.

The word 'estimate' has no special meaning in construction industry, which renders it incapable of acceptance so as to form a contract.<sup>16</sup> On the other hand an estimate may not form the basis of a contract merely a guide price which does not prevent a contractor from recovering a fair sum for the value of work done.<sup>17</sup> But practitioners should note that here, despite the use of the word 'estimate' the intention of the document sent out by the contractor, when objectively viewed, was as a response to the owners' invitation to tender. The 'estimate' therefore had status as an 'offer' capable of acceptance.<sup>18</sup> Different in other hand that amount quoted was an estimate, in the sense of a 'guide-price' not a quotation or offer that could be accepted to form a contract.<sup>19</sup> Question arises here, whether 'estimate' is valid offer that may be basis for valid acceptance in formation of construction contract?

This study is important and needs to be done because in any given agreement, the parties need to be aware of the contract formation. It is thus of critical importance to determine whether or not a contract has been formed. To those not familiar with

---

<sup>15</sup> (1963) NZLR 967, New Zealand Supreme Court

<sup>16</sup> R.W.Craig (1999), *Procurement Law for Construction and Engineering Works and Services*, London, BlackWell Science Ltd. Pp. 3.

<sup>17</sup> *Supra*, Note 16, Pp.3.

<sup>18</sup> In *Crowshaw v. Pritchard* (1899) 16 TLR 45.

<sup>19</sup> In *K.M Young Ltd. v. Cosgrove* (1963) NZLR 967, New Zealand Supreme Court

the ways of the construction industry (and perhaps to some who are), it will come as a surprise just how often substantial works are executed before one of the parties realizes that there is not, in fact, any contract in place. This often the result of the parties having commenced works on the basis of a giving quotation before all of the essential terms necessary for a contract have been concluded, and in anticipation that these terms will be agreed subsequently. If the parties do not subsequently reach agreement, either because they are unable to do so or because they simply overlook the necessity to do so, there will be no contract.

A major problem could well arise if it is held that work has been completed but that there never was a contract because there were major matters which remained unresolved. In the absence of a contract there will be no contract price or a method of arriving at the price for the work. Payment would then have to be on the basis of a fair and reasonable price for the work. With no contract in place there can be no levying of damages for late completion, as there is no contractual framework in which the damages can be levied. The quality of work can also be a problem as there are no contract drawings or specification in the absence of a contract.

### **1.3 Objective**

To identify whether estimate are valid offer that may be a basis for valid acceptance in formation of construction contract.

#### **1.4 Scope of Study**

This research will be discussed when estimate issue from contractor could it make a formation of contract between both parties, which are client and contractor. Furthermore, court cases will be referred in order to identify is contract be formed if there is estimate given by contractor. Cases only are discussed on Malaysia condition.

#### **1.5 Significance of Study**

It is vital to understand meaning of offer and acceptance in construction contract. Besides that, daily life depends on offer and acceptance. As understand meaning of offer and acceptance, there is event where indicate offer itself. For example estimate request from client and contractor prepared and submit the estimate to contractor. Meanwhile, contractor feels that contract is bind between them. Therefore, significance of study will make contractor realized on formation of contract under words of estimate.

## **1.6 Research Process and Methods of Approach**

In order to achieve the research objectives, a systematic process of conducting this study had been organized. Basically, this research process consists of five major stages, which involve identifying the research issue, literature review, data collection, data analysis, conclusion and suggestions.

### **Stage 1: Identifying Research Issue**

Identifying the research issue is the initial stage of the whole research. To identify the issue, firstly, it involves reading on variety sources of published materials, such as journals, articles, seminar papers, previous research papers or other related research papers, newspapers, magazines, and electronic resources as well through the World Wide Web and online e-databases (Lexis-Nexis through Malayan Law Journal) from University of Technology Malaysia, UTM library's website.

### **Stage 2: Literature Review**

Literature review is the second stage of the research. Literature review will be involved the collection of documents which from secondary data for the research, such as books, journals, internet, newspapers etc. Indeed, published resources like books, journals, varies standard form of contract, and related statutory are the most helpful in this literature review stage.



### **Stage 3: Data and Information Collection**

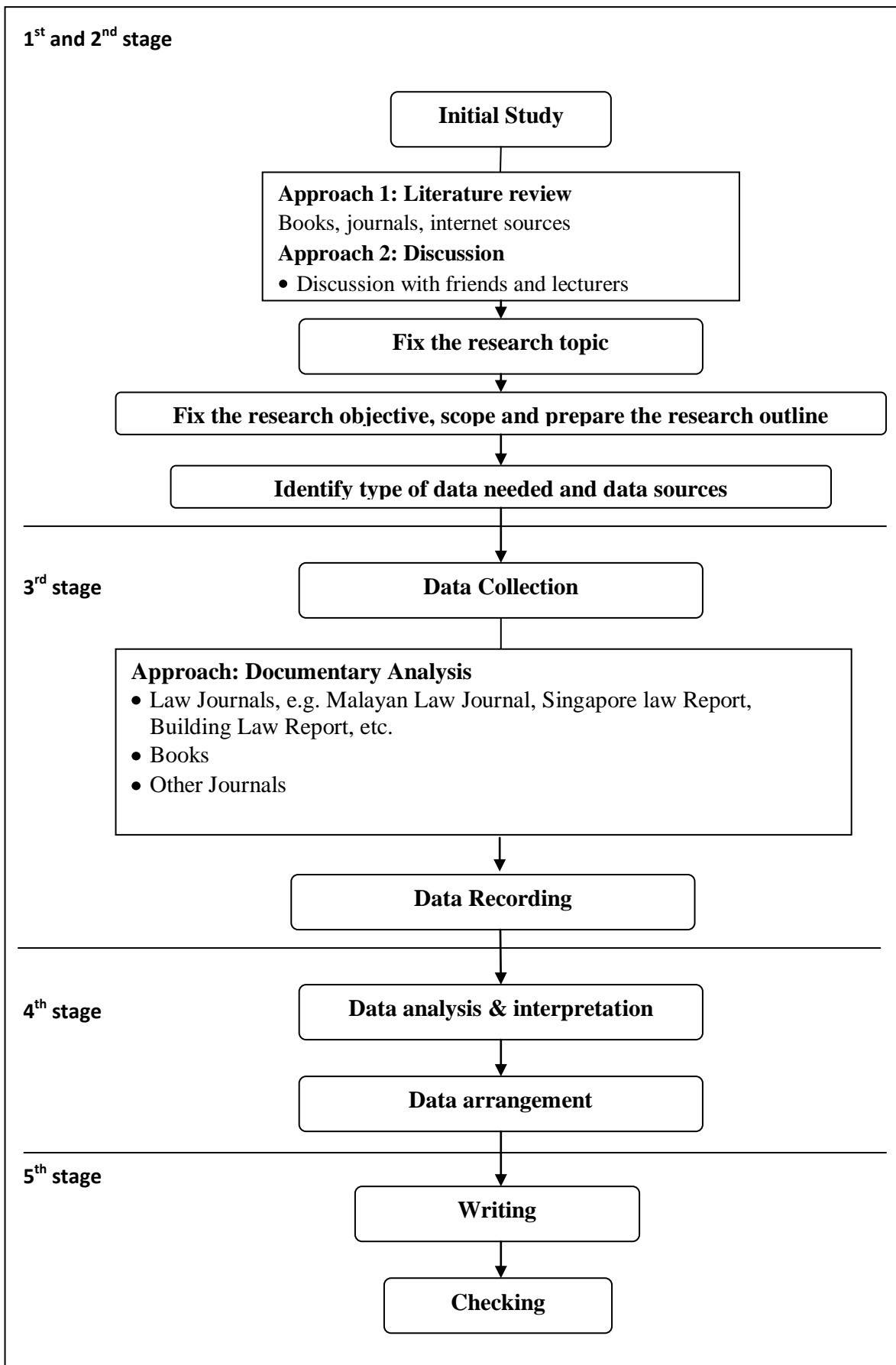
Third stage of this research is data and information collection stage. This is an important stage towards achieving the objectives. This stage will be begun just after the previous two stages are completed. The further action is to collect the relevant information based on the secondary data from the published resources and carry out case studies. In this research, other approach methods were used such as interviews and questionnaires.

### **Stage 4: Research Analysis**

In this stage, it is able to determine whether the stated objective has been achieved or vice versa. Different types of analysis will be carried out according to the requirements of the objectives. It is important in conducting case study in the way to identify the trends and developments in the issue that is to be studied.

### **Stage 5: Conclusion and Recommendations**

Conclusion and recommendations is the final stage of the research. In this stage, the findings would able to show the result of the research. Conclusions need to be drawn in-line with the objectives of the research. At the same time, some appropriate recommendations related to the problems may be made for a better solution in relation to the said problem, or for further research purposes.



**Research Process and Methods of Approach**

## REFERENCE

- Alsagoff, S.A. (2003). *Principles of Law of Contract in Malaysia*. Second Edition. Kuala Lumpur: Lexis Nexis.
- Bartholomew, S.H. (1998). *Construction Contracting: Business and Legal Principles*. Second Edition. London: Prentice-Hall International (UK) Limited
- Beatson, J. (2002). *Anson's Law of Contract. 28th Edition*. New York: Oxford University Press.
- Black, H.C. (1968) *Black's Law Dictionary*. Revised Fourth Edition. United States: West Publishing Co.
- Cartwright, J. (2007) *Contract Law – An Introduction to the English Law of Contract for the Civil Lawyer*. Oregon: Oxford and Portland
- CERIK (2000). *Tendering Procedures in IFAWPCA Member Countries*. Korea: Construction Economy Research Institute of Korea
- Cherry, I.S. (1985). *JCT 80 and the Contractor*. London: Butterworths
- Chow, K.F. (2006). *Construction Contracts Dictionary*. Singapore: Thomson Sweet & Maxwell Asia
- Clamp, H. (1984). *The Shorter Forms of Building Contract*. London: Granada
- Clough, R.H. (1996). *Construction Contracting*. Fifth Edition. New York: John Wiley & Sons.

Construction Industry Development Board Malaysia (2000). *CIDB Standard Form of Contract for Building Works 2000 Edition*.

FIDIC (1999). *Conditions of Contract for Construction For Building and Engineering Works Designed by the Employer*

Gill, W.H. (1969). *Emden and Gill's Building Contracts And Practice*. Seventh Edition. London: Butterworths.

Government of Malaysia. (2007). *Standard Form of Contract To Be Used Where Bills of Quantities Form Part of The Contract. P.W.D. Form 203A (Rev. 2007)*

Halson, R. (2001). *Contract Law*. London: Pearson Education Limited.

Harbans Singh KS. (2002). *Engineering and Construction Contracts Management: Pre-Contract Award Practice*. Kuala Lumpur: LexisNexis.

Huntley, J.A.K., Blackie, J., Cathcart, C. (2003). *Contract Cases And Materials*. Second Edition. Edinburgh: W.Green & Son Ltd.

Law Journals from Lexis Nexis Website at <http://www.lexisnexis.com>

Legal Research Board (2005). *Contracts Act 1950 (Act 136), Contracts (Amendment) Act 1976 (A 329) & Government Contracts Act 1949 (Act 120)*. Selangor: International Law Book Services.

Masterman, J.W.E. (1996). *An Introduction To Building Procurement Systems*. London: E&FN Spon

Murdoch, J. and Hughes, W. (2008). *Construction Contracts Law and Management*. Fourth Edition. London: Taylor&Francis.

Padfield, C. F. (1977). *Law Made Simple. Fourth Edition*. London: A Howard & Wyndham Company.

Pertubuhan Arkitek Malaysia (1998). *Agreement and Conditions of Building Contract: PAM 1998 Form*.

Powell-Smith, V. and Furmston, M. (1987). *A Building Contract Casebook*. Oxford:

BSP Professional Books.

Powell-Smith, V. and Sims, J. (1985). *Contract Documentation for Contractors*.

London: BSP Professional Books.

Ramus, J. and Birchall, S. (1996). *Contract Practice for Surveyors*. Third Edition.

Oxford: Laxton.

Robinson, N.M., Lavers, A.P., George Tan, K.H. and Chan, R. (1996). *Construction*

*Law in Singapore and Malaysia*. Second Edition. Singapore: Butterworths Asia.

Simon, M.S. (1979). *Construction Contracts and Claims*. United States: McGraw-

Hill

Smith, J.C. and Thomas J.A.C. (1961) *A Casebook on Contract*. Second Edition.

London: Sweet & Maxwell Limited

*The Oxford English Dictionary (1933)*. Volume I A-B. Great Britain: Oxford

University Press.

Thomas, J.K.Jr. (2005). *Smith, Currie & Hancock LLP's Common Sense*

*Construction Law: A Practical Guide for the Construction Professional*. Third Edition.

John Wiley & Sons, Inc: New Jersey.

Treitel, G.H. (1983). *The Law of Contract*. Sixth Edition. London: Stevens & Sons.

Visu Sinnadurai (1987). *The Law of Contract in Malaysia and Singapore: Cases and*

*Commentary*. Second Edition. Singapore: Butterworths.

Vohrah, B. and Wu, M.A. (2000). *The Commercial Law of Malaysia*. Second Edition.

Kuala Lumpur: Pearson Education Malaysia Sdn. Bhd.

## BIBLIOGRAPHY

Aqua Group (2002). *Pre-Contract Practice and Contract Administration for Building Team*. Oxford: Blackwell Publishing.

Atkinson, A. V. (1985). *Civil Engineering Contract Administration*. London: Hutchinson & Co. (Publishers) Ltd.

Bowyer, J. (1976). *Small Works Contract Documentation: and how to administer it* Third Edition. Architectural Press Legal Guides: London

Chappell, D. and Powell-Smith, V. (2004). *The JCT Minor Works Form of Contract*. Third Edition. Oxford: Blackwell Publishing.

Keating, Donald (1991). *Keating On Building Contracts*. 5th edition. London: Sweet & Maxwell Limited.

Knowles, R. (2000). *One Hundred Contractual Problems and Their Solutions*. London: Blackwell Publishing.

Lim, C.F. (2004). *The Malaysian PWD Form of Construction Contract*. Selangor: Sweet & Maxwell Asia.

Martin, R. (2005). *52 Contractual Issues Relevant to Malaysia and Their Resolution*. Kuala Lumpur: James R Knowles Sdn Bhd.

May, A. (1991). *Keating on Building Contracts*. Fifth Edition. London: Sweet & Maxwell.

McInnis, A. (2001). *The New Engineering Contract: A Legal Commentary*. New York:

Thomas Telford.

Naoum, S. G. (1998). *Dissertation Research and Writing for Construction Students*.  
Oxford: Butterworth-Heinemann.

Parris, J. (1985). *The Standard Form of Building Contract JCT 80*. Second Edition.  
London: Collins Professional and Technical Books.

Ramsey, V. (2000). *Construction Law Handbook*. London: Thomas Telford.

Rajoo, S. (1999). *The Malaysian Standard Form of Building Contract (The PAM 1998)*  
*Form*. Second Edition. Kuala Lumpur. Malaysian Law Journal Sdn. Bhd.

Watson, W. E. (1951). *Emden and Watsons's Building Contracts and Practice*. Fifth  
Edition. Sydney: Butterworth & Co (Australia), Ltd.