# DISPUTES IN DESIGN AND BUILD CONSTRUCTION CONTRACT

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# DEDICATION

*Assc. Prof. Dr Maizon Hashim…*
*"For your concern and patience, I would always be thankful to you."*

*To my dearest mother - Katijah Haron, brothers and sister…*
*"Thanks for your love, patience and encouragement."*

*To my friends - Hadzira Md Nor & Nor Izah Mohd Nor,*
*classmates of CCM and colleagues…*
*"Thanks so much for your advices, ideas and support."*

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# ABSTRACT

Design and Build projects have become popular in Malaysia around the year 2000, particularly in the public sector. The basic concept of Design and Build require the project to be contracted to a single organisation that would be responsible for design, procurement, engineering and commissioning. In the traditional system, the designer is only responsible for exercising the average degree of skill or care of the design and does not typically guarantee a successful outcome for services. However, the standard of care for a contractor under Design and Build is different; contractor provides both implied and express warranties of a successful project as a result of their services. This is one of the reasons why employers choose the Design and Build as it does not just give benefits to the employer but clarifies the contractor's scope of its liability with the intention of reducing the amount of claims. However, this is not always achieved and disputes among the contractual parties still arise. This study is to identify the circumstances of disputes which will arise under Design and Build contract that relate to the contractor's liability of design. This study is based on literature review and analysis of law cases related to the issue. After analysing the cases, it can be concluded that the employer will need to prove that the works which have been done are not fit for intended purpose; or the defective work are caused by the contractor's defective design, materials, or workmanship; or the design was carried out negligently. Therefore, by conducting this study, the decision and judgment regarding to the issue of contractor's liability can be used as a guideline so that the dispute or problem under Design and Build projects will not happen in future.

# ABSTRAK

Reka dan Bina telah menjadi popular di Malaysia sekitar tahun 2000, terutamanya dalam sektor awam. Konsep asas Reka dan Bina memerlukan kepada organisasi tunggal yang akan bertanggungjawab bagi reka, kejuruteraan, perolehan dan pelaksanaan. Dalam tradisional sistem, Pereka hanya bertanggungjawab untuk menjalankan kemahiran atau tanggungjawab rekabentuk pada tahap purata dan tidak menjamin perkhidmatannya berjaya. Walaubagaimanapun, taraf tanggungjawab untuk Kontraktor di bawah Reka dan Bina adalah berbeza; Kontraktor menyediakan kedua-dua jaminan tersirat dan nyata dan projek yang berjaya sebagai hasil daripada perkhidmatan mereka. Ini adalah salah satu sebab utama mengapa majikan memilih Reka dan Bina, ia bukan memberi manfaat kepada majikan, tetapi menjelaskan skop tanggungjawab Kontraktor dengan niat untuk mengurangkan kadar tuntutan. Walaubagaimanapun, ia tidak semestinya tercapai dan pertikaian di kalangan pihak berkontrak masih timbul. Oleh itu, kajian ini adalah untuk mengenal pasti keadaan pertikaian yang timbul di bawah kontrak Reka dan Bina yang berhubung dengan tanggungjawab kontraktor pada rekabentuk. Kajian ini berdasarkan dari kajian semula dan analisis kes undang-undang yang dipilih berkaitan dengan isu. Selepas menganalisa kes-kes, kesimpulan yang boleh dibuat ialah Majikan perlu untuk membuktikan bahawa kerja-kerja yang dilakukan tidak sesuai untuk tujuan yang dimaksudkan; atau kerja-kerja yang rosak adalah disebabkan oleh kerosakan pada rekabentuk, atau bahan-bahan atau mutu kerja kontraktor; atau rekabentuk dijalankan dengan cuai. Oleh itu, dengan menjalankan kajian ini, penghakiman yang dibuat oleh mahkamah pada isu-isu yang berkaitan dengan tanggungjawab Kontraktor boleh dibuat sebagai satu garis panduan supaya pertikaian atau masalah yang sama di bawah kontrak Reka dan Bina tidak akan berulang dalam projek pada masa depan.

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## CHAPTER 3 DISPUTES IN CONSTRUCTION INDUSTRY

# LIST OF CASES

## LIST OF ABBREVIATIONS

| | |
|---|---|
| AC | Appeal Cases, House of Lords |
| AIA | American Institute of Architects |
| All ER | All England Law Reports |
| BIT | Bilateral Investment Treaty |
| Build LR | Building Law Reports |
| Con LR | Construction Law Reports |
| D&B / DB | Design and Build |
| ICE | Institute of Civil Engineering, UK |
| IEM | Institute Of Engineer Malaysia |
| ISM | The Institute of Surveyor, Malaysia |
| JCT | Joint Contracts Tribunal, UK |
| MLJ | Malayan Law Journal |
| MLJU | Malayan Law Journal Unreported |
| PAM | Pertubuhan Arkitek Malaysia |
| PWD | Public Works Department Contracts |
| RFI | Request for Information |
| RFP | Request for Performance |

# LIST OF TABLE

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of the Study

The construction industry has been a paradoxical leader in both dispute occurrence and disputes resolution system for many years.[1] While this may or may not be an enviable position, the industry has managed to develop and adopt many unique ways to address the potential risks of disputes.[2] The construction industry is a vehicle through which a nation's physical developments are activated by initiating projects from the blue print stage to the implementation.[3] In actual practice, in all likelihood, a

[1] Groton, "How to Keep Your Project Out of Litigation, Arbitration, and Even Mediation." CII Annual Conference - Leadership of Tomorrow: Bridging the Gap, (Grapevine, 2005), p 49-67
[2] Pena Mora, Sosa, C.E., and McCone, D.S., "Introduction to Construction Dispute Resolution", (Prentice Hall, 2003), p 20-23
[3] H. Adnan, K. Jusoff, M.K. Salim, "The Malaysian Construction Industry's Risk Management in Design and Build", 2(5), (Journal Modern Applied Science,2008), p 27-33

construction project frequently involves a large number of contributors or participants who are contractually interlinked by a matrix of contractual arrangements.[4]

The increasingly complex and varying demands placed upon the construction industry by the clients do not only stem from the need to provide more sophisticated commercial and industrial working environments at minimum cost and maximum speed, but also from the fact that the organizations of the clients' are also complex in nature with different categories of consumers requiring discrete solutions to their procurement needs. The choice of a procurement method route for construction work is one of the many important decisions that construction clients have to make. Therefore, modern owners of constructed facilities are increasingly investigating a variety of alternative procurement methods. These methods include design-build, turnkey and construction management.[5]

Design and Build contract is widely used recently for the project delivery. In Japan, Design and Build is considered to be the main and traditional procurement system. The approach has led to the establishment of close and long-lasting relationships between clients and contractors that bring benefits to both sides.[6] The basic concept of Design and Build approach is for the organisation requiring the project to be contracted with a single organisation that would be responsible for design, procurement,

[4] Harban Singh, K.S., "Engineering and Construction Contracts Management – Pre-Contract Award Practice,(Kuala Lumpur: LexisNexis, 2002) p 1-8
[5] *Supra* note 3
[6] Abdul Rashid, K., Construction Procurement in Malaysia – Processes and Systems, (Research Centre, IIUM, 2002), p 1-8

engineering, and commissioning. Literally, the entire client would have to do would be 'to turn a key in the door' and the project would be in operation readiness.[7]

According to the Dr. Syed Alwee Alsagoff, (2001), in conventional or traditional construction contract arrangements, design responsibility is classed under a responsibility to exercise reasonable care, that is, the exercise of professional standards of expertise in design. A contractor's obligation is restricted to complying with specifications of materials supplied by designers engaged by the employer. For instance, in *Leo Teng Choy v Beetile Construction*[8] and *Hii Soo Chiong v Board of Management of Yee Ting Primary School*[9]**,** if the specifications were sufficiently detailed, contractors have no general higher obligations to produce a better design for their clients so long as they complied faithfully those details and had no special expertise to be aware of the design shortcomings in advance.

Unlike Design-build contract, design responsibility is under design and build contractor, and it will guarantees that the completed facility is to be designed by the contractor, carrying with it an implication that the design is to be of a standard that is suitable for his employer's intended use. Here, by and large, the contractor is deemed to carry an obligation to produce a facility that is free of defects, conforming to the criteria set out and suitable for its purpose designated at the outset.[10]

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[7] Ng, Weng Seng & Md Yusof , Aminah (2006), "The Success Factors Of Design And Build Procrement Method: A Literature Visit", Proceedings of the 6th Asia-Pacific Structural Engineering and Construction Conference, (Kuala Lumpur, Malaysia,2006), p1-11

[8] [1982] 2 MLJ 302

[9] [1973] 2 MLJ 204

[10] [2001] 1 MLJA 71

Nevertheless, in the fact that is employers become more demand on the design and this will put more risks to the contractor.[11] Due to this problem, the disputes among all parties that have been involved can be seen clearly. This study is intended to reveal the questions regarding on what is the standard of care that needs to carry out by the contractor which is suitable for his employer's intended use and what are the disputes that relate to the liability of design by the contractor in Design and Build contract.

## 1.2 Problem Statement

In Malaysia, Design and Build Procurement System was established by the Public Works Department in 1983.[12] In October 1999, the Malaysian Education Ministry announced that a large share of future school-buildings contracts will be let out by the Ministry via a design and build package.[13] Then, Design and Build Procurement method is a common trend in Malaysian construction industries in 2006, particularly for mega projects such as Petronas Twin Tower, Kuala Lumpur International Airport, Malaysia North South Highway, Penang Bridge and etc.[14]

Malaysian construction industries adopted Design and Build procurement method because this method is faster and cheaper compared to the old Bid and Build projects. Design and Build projects assure of getting the project completed at the right

[11] *Supra* note 7
[12] Ibid
[13] [2001] 1 MLJA 71
[14] *Supra* note 7

time and within allocated budget.[15] However not all the Design and Build projects can be done successfully. Design and build has been labeled to be 'designed to fail' by Second Finance Minister.[16] This is due to the fact that some of the design and build mega projects have failed not be done completely as what the client wanted. Some examples of notorious mega projects using design and build system and that have been highlighted in past few years are Middle Ring Road (MRR) 2, Navy Recruit Training Center (Pularek) and Matrade Building.[17] The examples of these failure projects have influenced the perception of the society and the industry that this design and build will give more problems rather than benefits.

Nevertheless, not all design and build projects failed due to the poor performance by the contractor. Based on the research done by Tan (1992),[18] the major dispute arose in this system are related to the liability for design. Unless a contract states otherwise, the law implies a duty of "fitness for purposes" on a design and build contractor. This is more difficult than the normal duty of "reasonable skill and care" imposed on a design consultant.[19] Deviation from the original design will create higher risks for the contractor, as he has to pay for his own mistakes or decisions.[20] Due to this view, author has developed personal interest to understand the concept of design and build construction contract, what is liability of design, what are the disputes arises if the liability of design is not fulfilled by the contractor and what are the proofs that need to shown because of the contractor is fail in his liability of design.

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[15] [2001] 1 MLJA 71
[16] New Sunday Times – February 4, 2007
[17] New Sunday Times – February 5, 2007
[18] Tan, D, Problems with Design and Build Contract in Malaysia, Vol.27, 3rd quarter (The Surveyor, 1992), p 20-25
[19] Hawkswell Kilvington, Design and Build: A review of some of principles, (Construction Bulletin, 2002), available at www.thkp.co.uk
[20] *Supra* note 3

One example is the case of *Viking Grain Storage Ltd v TH White Installations Ltd & Anor,*[21] a variety of defects rendered the facility unfit for its intended purpose and the employer sought recovery from the contractor. The contractor sought to argue that he warrants to use good quality materials and workmanship like in a traditional construction arrangement, but not to guarantee that the facility will be fit for its purpose. For the design contents, the contractor argued that his duty was the same as those of a designer that is to exercise reasonable care only.

The judge was held that the arguments from the contractor cannot be supported in a design and build package. In these contracts, an overall obligation to deliver a facility suitable for use that the employer stipulated is imposed on the contractor, beyond the which can be implied from separate contracts of design and contracts for work and materials. Therefore, contractor is entitled to remedy the defective works.

Another example is the case of *Co-operative Insurance Society v Henry Boot Scotland and Others,*[22] where the problems arise during construction, where soil and water flooded into a basement excavation. An engineer that had originally been employed by the employer to prepare a concept design of the structure, and contractor had developed the design and prepared the working drawings. Then the employer brought claims against the contractor and the engineers, but the contractor argued that their liability was limited to the preparation on the working drawings.

[21] [1985] 33 BLR 103
[22] [2002] ClLL 1932

The judge, however reject that argument, took the view that completing the design included examining the design at the point that it was taken over, assessing the assumptions on which it was based and forming a view as to whether they were appropriate. The contractor has a full responsibility to use his reasonable skill and care to ensure the design will fits to the purpose.

All these issues have triggered the author to conduct a study to identify the issues brought to litigation pertaining to liability of design by the contractor in design and build. This study is conducted to identify the circumstances of disputes which arise under Design and Build contract in relation to contractor's liability of design.

## 1.3 Objective of the Study

The objective of this study is to identify the circumstances of disputes under the Design and Build contract in relation to the contractor's liability of design.

## 1.4 Scope of the Study

The scope of this study focuses to the Malaysia, Singapore, and International cases starting from 1980s to 2000s. This study is related to the disputes due to the contractor's failure to complete his liabilities in design under Design and Build contract.

## 1.5 Significant of the Study

This study is conducted due to several issues of disputes, the circumstances and definition given by the judgment relating to the liability of design. Besides, this study will be significant since there is no one had done on this contractor's liability in design under Design and Build contract before. Kiong, (July, 2010) has conducted a study on Variation Order in Design and Build Contracts; however his focus is only on the circumstances of variation order in Design and Build contracts.

## 1.6 Research Methodology

### 1.6.1 Stage 1: Initial Study

The research issue arises from the intensive reading of books, journals and articles which can be easily found from the UTM library and from the Internet. From the research issue, the objectives of the study have been identified. This research is carried out to review the disputes in Design and Build construction contract.

### 1.6.2 Stage 2: Data Collection

Next, the research issue and objectives have been identified, various documentation and literature review regarding to the research field will be collected to achieve the objectives. Generally, secondary data is collected from the latest reading materials in printing form such as books, journals, research papers, reports, newspaper as well as from the Internet. It is important to identify trends and developments from time to time in construction industry, as well as the general state of knowledge concerning the subject area of disputes and Design and Build contract.

After identifying all the background and relevant issues through literature review, legal cases based on previous court cases which are related to the research issue will be collected. These sources are important to complete the chapter of literature review.

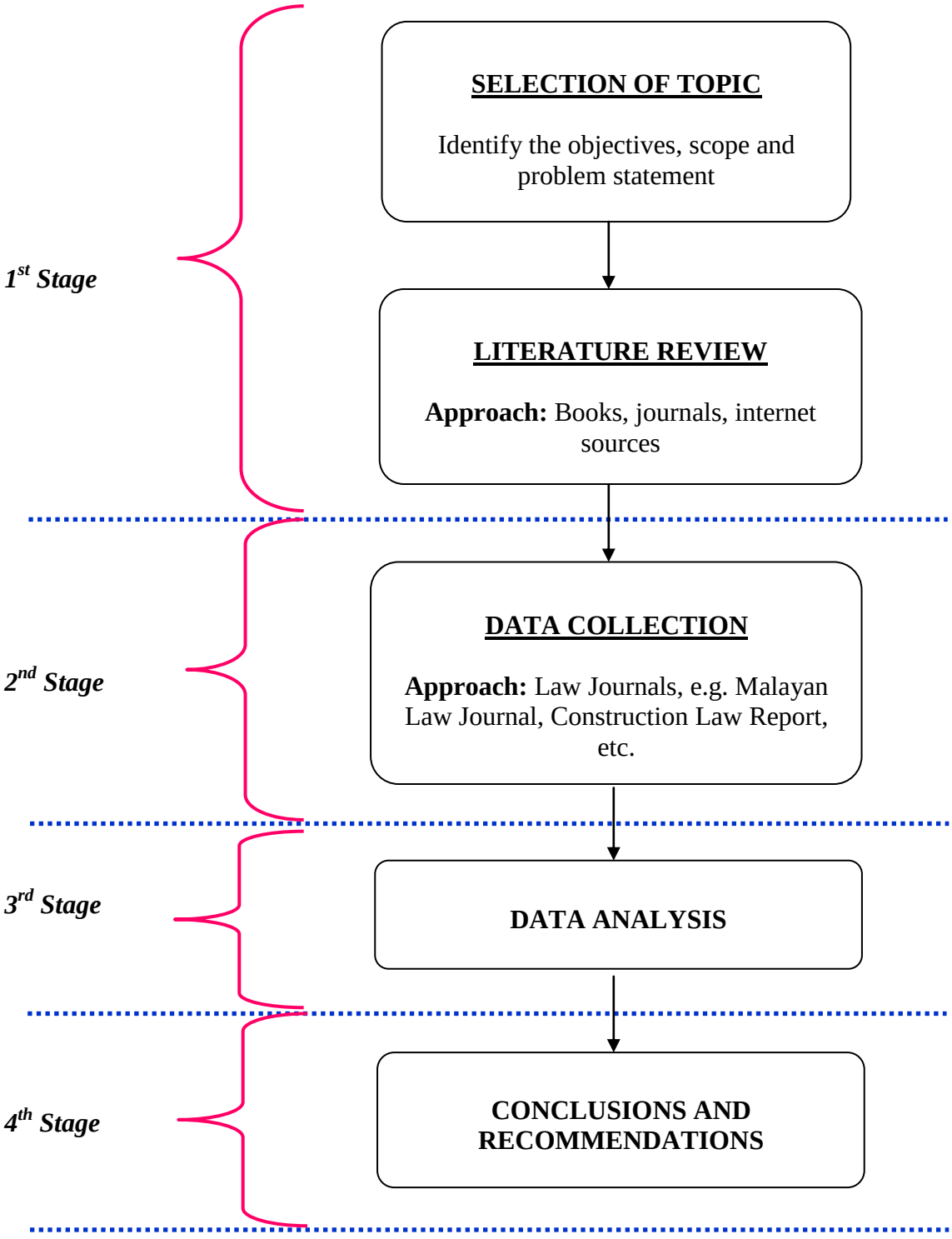
### 1.6.3 Stage 3: Data Analysis

After the data collection stage, all the collected cases, information, data, ideas, opinions and comments will be analysed. This is started with the case studies on the related legal court cases. The analysis will be conducted by reviewing and clarifying all the facts and issues of the case. The cases were gained mainly from Lexis Nexis, with keywords such as “design-build contract”, “turnkey contract” and “liability of design”. All the court cases referred in this research are including Malaysia, Singapore, and English cases. The selected cases were from 1980s to 2000s.

### 1.6.4 Stage 4: Conclusion and Recommendations

In the last stage, the author will review the whole process of the study to identify whether the research objectives have been achieved. After presenting the research findings, further research will be suggested.

Figure 1.1: Flow chart for research methodology



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