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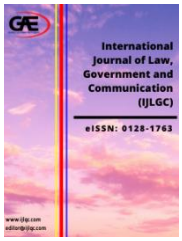

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MANAGING INCONSISTENCIES IN CONDITION OF ENGAGEMENT OF AN ARCHITECT IN DESIGN-BUILD PROCUREMENT

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Abstract:

The Client, especially the Malaysian Public Sectors has commonly been using the Standard Condition of Engagement (COE) of an Architect stipulated in the Architects Act 1967 (Act 117) & Rules. It set the terms for Architect's appointment in any construction projects. However, this is only applicable in the traditional procurement method as the Architect is appointed by the Client. Design-Build (DB) procurement which has been widely used in Malaysia offered a different method of Architect's appointment. The Architect is appointed by the DB Contractor instead of the Client and the agency concept is claimed to be compromised. Currently, there is no standard COE of an Architect appointment under DB procurement in Malaysia as practiced in United Kingdom. Thus, the terms in the standard COE tend to be modified to serve the needs and requirements of the DB Contractor. This study deliberates a comprehensive discussion on the modification made to the salient terms of standard COE of an Architect in DB procurement in order to identify risks related to the inconsistencies. This paper employed (1) Documentary Analysis and (2) semi structured interviews on personnel from three different case studies in identifying inconsistencies of terms in the COE. The findings in this paper highlighted on the most modified salient terms of the COE of the three selected DB projects and the risks associated to the modification. The results of this study will be beneficial to stakeholders in the DB procurement especially Architect in understanding and managing inconsistencies in the COE.

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Introduction

Nature of appointment of professional consultants in construction projects including Architect are different in each procurement type. However, the terms and conditions of architect's appointment which known as Condition of Engagement (COE) has been standardized and stipulated in the *Architects Act 1967 (Act 117) & Rules*, regardless of any procurement type. The standard form of COE is self-explanatory and the contracting parties understand what are they agreeing to (Adriaanse, 2016; Penn, 2016). It is also time and cost efficient (Jervis & Levin, 1988) where it will reduce time on negotiating terms and reduce potential area of disagreement (Shnookal & Charrett, 2010). The standard form of COE also offers more certainty (Jervis & Levin, 1988) and avoid ambiguity (Ndekugri & Rycroft, 2009). Therefore, it is always advisable and suggested to use the standard COE in every appointment because the terms has already been negotiated between different legislation bodies that make up the industries thus the risks are equitably distributed (Adriaanse, 2016) among contracting parties. The written agreement on the Architect's appointment should covers salient terms involving (1) contractual parties (2) duration of the engagement (3) consultant obligations (4) fees (5) intellectual properties (6) insurance and indemnity (7) assignment (8) dispute resolution (9) deleterious materials (10) suspension and determination (11) jurisdiction (Adriaanse, 2016; Penn, 2016).

Literature Review

Design-build (DB) procurement offers different appointment method of an Architect where the Architect is appointed by the DB Contractor as compared to the traditional procurement where the Architect is appointed by the Client. The nature of this appointment is claimed to have compromise the leading roles of an Architect which will be taking over by the DB Contractor (Salcedo Rahola & Straub, 2016). Thus, the DB Contractor will become the Client to the Architect (Salcedo Rahola & Straub, 2016) and the concept of Agency is said to be compromised as the Architect are no longer the Client's representative and has no authority to instruct the Contractor on behalf of the Client (Contracts Act 1950 (Act 136 Contracts (Amendments) Act 1976 (Act A329) & Government Contracts Act 1949 Act 120, (As at 1st Oct 2016) DB procurement has become a growing trend due to its performance which offers single point responsibility, project cost saving with acceptable quality, schedule reduction, enhanced communication, reduce litigation on project delivery and omission transferred from owner to DB Contractor (Saaidin et al., 2016). Thus, the matter in regards with appointment and contracting among the DB team including Architect should be looked into detail as the roles and responsibilities of an Architect are based on what is stated in the contract of employment (Akintoye & Fitzgerald, 1995). As Malaysia does not have a standard COE of an Architect for DB procurement, DB Contractor commonly modified the terms according to their needs and requirement (Sahil, 2008). The COE determine the roles and responsibilities of an Architect in the project. Inconsistencies in the COE prior to modification made by the DB

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Contractor to suit his needs and requirements, the roles and responsibilities of an Architect will change and invite imminent risk. Since DB procurement has been identified as the most risky project (Azizan & Ibrahim, 2015) as the contract type transferred more risks to the contractor than any other procurement type (Saaidin et al., 2016), therefore it is very crucial to identify risks related to all stakeholders in the DB procurement including Architect who is now part of the DB Contractor's team. Several risks related to Architect in DB procurement has been identified in previous researches as follows:

(1) Design variation and variation order
(2) Inadequate program scheduling
(3) Inadequate site information
(4) Incomplete design
(5) Inaccurate cost estimate
(6) Delayed/non-payment of fees

The risks related to the Architect have been categorized by analysing the roles and responsibilities of the Architect in DB procurement which have been determined earlier by the terms in the COE. Therefore, the objective of this study is to identify inconsistencies in the COE of an Architect appointed by DB Contractor in DB procurement in order to identify risks related to the inconsistencies of the COE. This will help to provide more understanding on the cause and implications on such modification in the COE and spread awareness to the Architect on risks in DB procurement related to the profession.

Methodology

This study employs multiple case studies method of 3 different completed DB projects in Malaysia. Determining unit of analysis is important and involves major entity to be analysed for the study. This study adopts embedded method using multiple units of analysis (Yin, 2003). **Table 1** shows Embedded Unit of Analysis for Multiple Case Studies Design using two unit of analysis which are (1) the COE and (2) the Architect.

Table 1: Embedded Unit of Analysis for Multiple Case Study Design

CONTEXT	CONTEXT	CONTEXT
CASE A	**CASE B**	**CASE C**
Unit of Analysis 1(A) - COE 1	Unit of Analysis 1(B) - COE 2	Unit of Analysis 1(C) - COE 3
Unit of Analysis 2(A) (Respondent A)	Unit of Analysis 2(B) (Respondent B)	Unit of Analysis 2(C) (Respondent C)

Source: (Yin, 2003)

Data collection methods used for this case study research are Documentary Analysis and semi structured interviews with the respondent of each case study. Document analysis also provides a rigorous and systematic research method for reviewing, analysing and evaluating the contents

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of written documents (Denscombe, 2014; Wach & Wardwith Jacimovic, 2013). Selection of case studies for this paper will be based on the following criteria:

(1) Completed Government/ Public DB projects during the implementation of the Certificate of Completion and Compliance (CCC) regime – year 2007 onwards
(2) Project cost above RM 50 million which involves Contractor with Grade G7 registered with CIDB.
(3) Direct appointment of an Architect by the DB Contractor and does not involve novation of appointment.

Summary of selected Case Studies Characteristics for this study and the Respondents' background for each selected case studies are presented in **Table 2** and **Table 3**

Table 2: Summary of Project Characteristics for Selected Case Studies

Description	CASE A	CASE B	CASE C
Client	Public Sector	Public Sector	Public Sector
Building Category	Institution 1. 2. Development of ADTEC, Taiping	Mixed development 3. Housing and commercial development for resettlement program in Taman Bayu Damai, Pengerang	High rise residential 4. Development of *Projek Perumahan Rakyat (PPR)*, Johor Bahru 5.
Contract Period	48 months including 12 months Defect Liability Period 6.	48 months, 24 months Defect Liability Period and 5 years Design Guarantee upon CPC	36 months and 24 months Defect Liability Period
Contract Value (RM)	160 million	335 million	68.5 million
Progress to Date	Completed (2011)	Completed (2018)	Completed (2018)

Table 3: Respondent Background

Description	CASE A	CASE B	CASE C
Name	Respondent A	Respondent B	Respondent C
Profession	Architect	Architect	Architect
Position in Company	Principal	Principal	Principal
Experience in profession	36 years	24 years	30 years
Experience in DB Project	18 years	14 years	25 years
Highest Academic Qualification	Bachelor in Architecture	Bachelor in Architecture	Bachelor in Architecture
Highest Professional Qualification	LAM	LAM	LAM, RIBA

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Main Results

The study begins with documentary analysis on the COE by reading and review each term and categorized the terms into 11 salient provisions of the terms which have been identified earlier:

(1) Contractual Parties
(2) Duration of the engagement
(3) Consultant obligations
(4) Fees
(5) Intellectual properties
(6) Insurance and indemnity
(7) Assignment
(8) Dispute resolution
(9) Deleterious materials
(10) Suspension and determination
(11) Jurisdiction

The data collected from the COE is analysed and represented using 'Modification Ranking Indicator (MRI)' to identify the degree of inconsistencies (Sadek, 2016) of the terms and rank the salient points into (1) Highly consistent terms (2) Slightly modified terms and (3) Highly modified with Value of 1 being consistent with the standard COE, Value of 1.10 – 2 being slightly modified from the standard COE and Value of 2.10 - 3 being highly inconsistence with the COE (Sadek, 2016) as shown in **Table 4.**

Table 4: MRI of Terms in Condition of Engagement of an Architect in DB Procurement

	Salient terms of COE	**Case Studies**			Value of Average MRI
		Case A	**Case B**	**Case C**	
1	Contractual Parties	1	3	1	1.66
2	Duration of Engagement	1	3	3	2.33
3	Consultant's Obligation	1	2	1	1.33
4	Fees	3	3	2	2.66
5	Intellectual Properties	3	3	3	3
6	Insurance/ Indemnity	1	1	1	1
7	Assignment	1	3	3	2.33
8	Dispute Resolution	3	1	1	1.66
9	Deleterious Materials	1	1	1	1
10	Suspension and Determination	3	1	1	1.66
11	Jurisdiction	3	1	1	1.66

Legend:

Highly Inconsistent Terms (Value of 2.10 – 3)
Slightly Modified Terms (Value of 1.10 – 2.00)
Highly Consistent Terms (Value of 1)

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Highly Consistent Terms (Average MRI Value of 1)

Highly consistent terms are terms that are not subjected to any alteration and modification and as per stipulated in the standard COE in Architect Act. **Table 4** shows that 2 out of 11 salient terms are consistent and in accordance with the standard COE which are:

1. Insurance and indemnity
2. Deleterious materials

Insurance and Indemnity and Deleterious Materials are not specified in the three case studies which makes it consistent with the standard COE.

Insurance and indemnity among professionals are known to indemnify against negligence act (Hasliyana, Hussin, Ismail, & Alam, 2016). Even though Inland Revenue Board Malaysia claimed that some professional bodies have enforced on its members the requirement to take up professional indemnity insurance either by statue or rules, Board of Architect Malaysia has yet to enforce this matters among all registered members hence it is not specified in the current standard COE. It is however advisable for Architects to take professional indemnity insurance as it aims to protect professionals against any damages arising out of an error and negligence in the professional services provided (Paterson, 2014).

Deleterious materials commonly specified in the construction contract between the Client and the Contractor in traditional procurement. As an Architect, who should act with high integrity, use reasonable skills and professional skills at all time (Hussien, 2013), it is their responsibilities to make sure that the material used are in compliance with Malaysian construction standard and guides from accreditation and governing bodies in though it is not specified in the standard COE of an Architect. According to the respondents, there should be no issues on Architect specified deleterious materials in the design as the design should be submitted and approved by Local Authority as stated in the Uniform Building By Law 1986 prior to any commencement of construction works.

Slightly Modified Terms (Average MRI Value between 1.10 to 2.00)

Slighly modified terms which MRI value between 1.10 to 2.00 are terms that are modified to compliment the standard condition. However, the modification did not effect the intention of the standard conditions. It may involves changing numbers of words or terms for the purpose of clarity or reflect the project circumstances but did not have any legal implications (Sadek, 2016). The following shows salient terms which have average MRI between 1.10 to 2.00 as shown in Table 4:

1. Contractual parties
2. Consultant obligations
3. Dispute resolution
4. Suspension and determination
5. Jurisdiction

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Contractual Parties (Value Average MRI = 1.66)

Case A and case C shows consistency with the standard COE (MRI Value of 1) while Case B shows high inconsistency with the standard COE (MRI Value of 3) for terms regarding contractual parties. In Case B, the terms have been highly modified as the engagement involves another agreement called 'Deed of Assignment' (DOA) between the DB Contractor, the Architect and the Employer which is the Public Sector. DOA is signed as a form of security that pass (Goh, 2019) and transfer legal rights and power to give a good discharge for the same (Civil Law Act 1956, Malaysia). According to the respondent B, DOA allows the Employer to pay directly to the Architect and other stakeholders appointed by the DB Contractor without having paid to the DB Contractor first. This method is believed to be one of the practical ways to avoid the risks of non-payment among consultants or even sub-contractors in DB procurement.

Consultant Obligations (Value Average MRI = 1.33)

Terms regarding consultant obligations in COE from Case A and Case C are highly consistent (MRI value of 1) with the standard COE where it can be stipulated that it is in accordance with Rule 29, Part 1 of COE. However, in Case B, the terms have been highly inconsistent with the standard COE (MRI value of 2). The modification of the terms involved the followings:

(1) The Architect should undertake the services on success bid basis
(2) The obligations are categorized into 2 different stages which are Pre-award and Post-award stage.
(3) Pre-award stage involved Schematic Design and Design Development stage as stipulated in the standard COE.
(4) Post-award stage services which only commence after the DB contractor being awarded involves the Contract Implementation and Management stage and Final Completion stage.

Being asked about this modification, Respondent B mentioned it is because of the value of the project. Since the project value is more than RM300 million, it is important to make sure that the risks among the stakeholder is equally distributed by taking into consideration the amount of work that has to be prepared for tender submission even before the project is being awarded to the DB Contractor. Respondent A stated that in his experience, out of 10 tenders submitted for DB projects, only 1 project would get awarded. All respondents agreed that most DB projects are success-bid basis. The amount of works that has been done for tender submission is not paid unless the DB Contractor is won the tender of the project. Some projects which have a very high project value and involves an extensive amount of works, specified a sum of an abortive fee for design service that has been performed by the Architect for tender submission.

Dispute Resolution (Value of Average MRI= 1.66)

Case B and case C shows high consistent terms regarding dispute resolution where the terms specified two methods for dispute resolution which are (1) Mediation and (2) Arbitration. However, in Case A, the terms have been omitted and this indicates high inconsistency with the standard COE (MRI value = 3). In the opinion of Respondent A, this modification does not have a significant implication whether it is being stipulated in the COE or not as when dispute

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happened, parties involved will definitely taking this matter to legal counsel or the governing Board.

Suspension and determination (Value of Average MRI= 1.66)

Standard COE in the Architect Act clearly stated that Architect is allowed to suspend their services due to non-payment of fees. Determination also can be served at any time with written notice and the Architect shall continue to perform his professional services up to 60 days of the notice being served. Case B and case C are highly consistent with the specified terms. Terms regarding suspension and determination in Case A has been omitted from the COE which indicate high inconsistent with the standard COE. Respondent A further explained when the terms are not specified in the COE, the condition in the Architect Act will take precedent. However, all respondents agreed that it is best to specify terms in the COE to prevent from the process for suspension and determination being argued between contractual parties.

Jurisdiction (Value of Average MRI= 1.66)

Case B and case C shows highly consistency with the standard COE (MRI Value = 1) which stated that dispute resolution mode for this project will be the Kuala Lumpur Arbitration Centre. However, in Case A, terms related to dispute resolution has been omitted from the agreement. Due to this modification, Respondent A further clarify that in his point of view, omission of this terms does not have significant implication towards this Agreement as when dispute happened, it will be referred to the governing Board for arbitration process.

Highly Inconsistent Terms (Average MRI Value between 2.10 to 3.00)

Highly inconsistent terms in this study are terms that have been modified by adding new terms, omission of terms, changing words or terms that has legal implication. This study shows 4 salient terms that has an average MRI value between 2.10 to 3.00 which are:

(1) Duration of engagement
(2) Fees
(3) Intellectual Properties
(4) Assignment

Duration of engagement (Value of Average MRI= 2.33)

The standard COE stipulated in the Architect Act 1967 did not specify the duration of engagement of an Architect. Case A shown highly consistency with the standard COE as the agreement did not specify the duration of the engagement. Respondent A further clarified that an Architect shall continue to provide his service as prescribed in the COE for the project unless termination notice has been served by either contractual party. Case B however specified that duration of the engagement of the Architect shall commence from the date of the Memorandum of Agreement or the time where the service has been performed or whichever earlier until completion of the said project. Case C clearly specified that the duration of the engagement of an Architect was 36 months and 24 months for Defect Liability Period which reflects the contract duration of the DB Contractor. Respondent B and Respondent C both agreed that duration of the engagement is important to be specified in the COE as it will determine the continuity of business performance of the firm. They suggested that extended duration of the

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engagement should either be paid by on a lump-sum amount or man-month basis agreed by both contractual parties.

Fees (Value of Average MRI= 2.66)

The Architects Act 1967 stated that the Agreement between the Client and the Architect shall be read together with the COE and Architect (Scale of Minimum Fees, SOMF) Rules 2010. It specified that all fees and stage payment of fees should be in accordance with the SOMF. Case A and Case B shown that the fees stated in the COE is not in accordance to the SOMF (MRI value of 3). It was an agreed amount between the contractual parties which is lower than the SOMF. The stage of payment also did not comply to the standard COE where they clarified that in most DB projects, the fees are being paid on 'paid when paid' basis. Only Case C shows consistency with the terms specified in the standard COE for fees amount and stage of payment. Calculation of fees amount were based on SOMF and converted to a percentage basis for easy reference. Respondent A and B stated that in most DB projects, the DB contractors usually make profit out of consultant fees thus they offered a discounted amount rather than following the SOMF. This was also agreed by Respondent C and stated that not many DB Contractor willing to pay Architect's fees in accordance with the SOMF while quoted "…why pay full amount when you can make profit out of it".

Intellectual properties (Value of Average MRI= 3.00)

Intellectual properties are meant to protect and promote creativity and innovation thus the standard COE clearly stated in sub-paragraph 20, Rule 29, Third Schedule of standard COE which stated that all design, drawings and documents prepared by the Architect shall be remain the properties of the Architect unless such terms have been agreed by contractual parties. Case A did not specify this term in the COE (MRI value = 3) however in Case B and Case C, it is clearly stated that all design, drawings and documents shall be the properties of the DB Contractor and can be used at any time for any purpose (MRI value = 3). Architects shall not use the documents or drawings for any means without the consent of the DB Contractor. Respondent B and C stated that in the standard COE, the properties of design, drawings and documents belong to the Architect as it can protect the Architect from the risk of not being paid for service that has provided.

The properties may be transferred once the Client has made full settlement of fees upon completion of the project or determination of the service. However, in DB project, it has been implemented differently. In the opinion of all the respondents, the DB Contractor will try to minimize his risks on having to do a new design with a new Architect when determination happened. This method will save his time and cost if they should engage a new Architect to continue the service. But on the Architect's perception, it is actually increasing the risk of non-payment should determination of service happened. These terms are often overlooked by every Architect, but their modification have great implication on them.

Assignment (Value of Average MRI= 2.33)

The standard COE does not specify any terms regarding Assignment. Only Case A shows highly consistent with the standard COE (MRI value =1). Case B and Case C shown that the COE has additional terms regarding Assignment which stated that the Architect, may not assign

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the benefit or in any way transfer the obligations of this Agreement or any part thereof. Respondent A did not see any significant reason for adding this salient term in the COE as it is knowingly unethical to sub-contract professional service to other parties. Respondent B and Respondent C added that sub-contracting of professional services does happen in the construction industries. The DB contractor was trying to minimize his risks and get assured that the design was prepared by the appointed Architect and not by other sub-contracting parties as DB Contractor still held the design liability in DB procurement. All the respondents also agreed that assignment of services to other parties might invite risks on incomplete design, design variation which leads to variation order and inaccurate cost estimate as the appointed Architect do not have full authority in monitoring the works of the sub-contracting parties.

Conclusion

This study reported on the inconsistencies of terms in Architect's COE in DB procurement, the cause and implications of such modification. The main data for the study was obtained from documentary analysis on the COE of the 3 case studies and interviews with the Architects for that project. Findings from the study suggested that:

(1) Terms that are consistent with the standard COE does not have significant implication toward the professional liabilities of an Architect.
(2) Modification of such terms depend on the value of the DB projects to equally distribute risk among stakeholders.
(3) Some modifications of terms are required and advised to make to avoid risk of non-payment to the Architect such as terms related to Contractual Parties, Consultant's Obligation, Fees, Assignment and Intellectual Properties.

From the findings, the following are proposed as a way forward in the effort towards more standardized contractual terms for Architect appointed by DB Contractor in DB procurement:

(1) Terms that have significant implications toward architect's liabilities and may minimize risks should be clearly stated in the COE of an Architect in DB procurement.
(2) Standard COE for Architect appointed by DB Contractor in DB procurement should be established so it will be reviewed by few governing bodies for equal distribution of risks as practised in United Kingdom.

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