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### PROS AND CONS OF INCOMPLETE CONTRACT IN PRIVATE FINANCE INITIATIVE (PFI) PROJECT

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#### *Abstract*

A contract is incomplete when it did not clearly spell out among others the parties' responsibilities and duties for all realised contingency and it contain loophole, some provisions being left out, and the wording used contain element of vagueness. Incomplete contract is said to be inevitable especially for projects with lengthy contract period, a lot of risk and/or uncertainty, such as Private Finance Initiative (PFI) projects. IC has both its PROs (positive) and CONs (negative) implications. Flexibility to deal with uncertainty when it arises is the PROs of IC while the CONs are inefficiencies and costs, contract amendment and others. PFI is among the key alternative procurement used in Malaysia. However, there has been criticism about PFI e.g. lopsided contractual agreement, absence of robust and transparent agreement, and vagueness in terms of sustainable element. Based on the issues mentioned, it is therefore, significant to carry out this research to assess the PROs and CONs implications of IC in PFI projects. Research method begin with literature review and followed by two rounds of Modified Delphi method. 18 and 13 panellists involved in the MD. The results from the research have identified eight (8) PROs and six (6) CONs. Findings of the research are significant for the improvement of future PFI project whereby PFI stakeholders can come out with proper action to deal with implications of IC.

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**Keywords:** Incomplete contract, implication, Private Finance Initiative.



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## 1. Introduction

Incomplete contract (IC) refers to a contract that did not clearly spell out among others the parties' duties and responsibilities for all probability and it contain loophole, some provisions being left out, and the wording used in the contract contain element of vagueness (Nur Syaimasyaza, 2017). A contract that involves additional work, changes, and/or renegotiation is also deemed incomplete. Although IC offers flexibility in dealing with complex and uncertain environment (Demirel, Leendertse, Volker, & Hertogh, 2017), however, at the same time, contracting parties is exposed to opportunistic behaviour, time and cost overruns cause by renegotiation process, dispute resolution, variation, etc. (Bajari, Tadelis, & Houghton, 2014). In other words, the contracting parties is at risk to inefficiency and dispute. Many previous researchers agree that construction contract cannot avoid being incomplete because to identify and address all uncertain circumstances that maybe appear throughout the contract duration is very difficult (Nur Syaimasyaza, 2017; Domingues & Sarmiento, 2016).

Private Finance Initiative (PFI) was introduced as an alternative procurement method to develop some of public infrastructure projects and services. In PFI, the contract to finance, design, construct, operate, manage, and maintain the facility till the concession completed (which could expand up to 30 years and more) is bundled together and awarded to a private sector or also known as concessionaire. PFI contract also cannot avoid being incomplete (Nur Syaimasyaza, 2017). The long duration of PFI contract makes it harder for the contracting parties to accurately forecast all possibilities and uncertainties that could happen during the contract period. PFI contract is usually associated with greater risks and uncertainty compared to a simple construction project as the long duration of PFI contract is at risk to several changes such as technology, demand, policy, and others.

This paper reports on a research to assess the PROs (positive) and CONs (negative) implications of IC in PFI projects in Malaysia. Findings of this research could help for the improvement of future PFI project whereby the contracting parties can come out with action plan to deal with the PROs and CONs of IC.

## 2. Problem Statement

Asian International Arbitration Centre's (AIAC) report in 2017 revealed that construction sector in Malaysia recorded the highest number of dispute cases whereby the total disputed claims is about RM1.38 billion (Izzat, 2018). Construction industry is usually associated with uncertainties and risks relating to economy, social, environmental, construction technique and others. In addition, the long-drawn process and the participation of many different parties in a construction project makes the transaction more complicated. Due to that, construction contract cannot avoid being incomplete (Ya-zhuo & Fan, 2011).

In Malaysia, Private Finance Initiative (PFI) is among the key alternatives in procuring public infrastructure. PFI is introduced by the government as a strategy to overcome their financial shortage and lack of advanced technology to build socio-economic infrastructures. Looking at the previous and current Malaysia plans, private participation in building the socio-economic infrastructures through PFI is encouraged by the government. However, PFI implementation has been criticise as having a lopsided concessionaire contract (Muhammad Imran, Kulatunga, & Thayaparan, 2016), absence of a very strong

and transparent contract (Abdul-Aziz & Jahn Kassim, 2011), and vagueness in sustainable component (Salleh, Ismail, Talib, & Karim, 2018). Consequently, PFI contracts are exposed to disputes and renegotiation. Disputes and renegotiations that happen due to IC could hinder the successful implementation of PFI (Nur Syaimasyaza, 2017).

Many people have the misconception that IC will only cause negative implication. According to past researches, IC can also bring a positive effect to the project's success. Cruz and Marques (2013) and Miller, Denison, and Matuszewski, (2013) both mentioned that IC gives the required flexibility when dealing with complex and uncertain environment. In addition, if renegotiation needs to be conducted, project's welfare and efficiency can be improved through the said renegotiation (Guasch, 2004; Athias & Saussier, 2010).

In a construction project, variations or changes to part of the work is almost inevitable. As stated above, change is one of IC characteristics. Research done by NAO (2008) revealed that changes can be cost-effective and completed very fast if it is manage accordingly. Another positive implication of IC stated by Herold (2010) is the contracting parties is more motivated to carry out the work when an incomplete contract is used. This is because, when IC is used, it gives the signals that the contracting parties trust each other and consequently increase their morale. Miller et al. (2013) and Ya-zhuo and Fan (2011) both mentioned that IC has lower transaction cost compared to a complete contract due to less cost spent to prove and write certain insignificant contingency in the contract.

Despite various positive implications of IC, IC without doubt, could also bring many negative implications to the project's success. IC gives the opportunity to self-interest party to make more money from it (opportunistic behaviour) by way of refusing to cooperate, initiate renegotiation, moral hazard, adverse selection, and others. Although Guasch (2004) and Athias and Saussier (2010) stated that renegotiation can give positive implications to the project, however Marques and Cruz (2013 as cited in Almarri & Blackwell, 2014) believed that it could lead to major contract failure and risking the value for money they want to achieve. In addition, there will be extra cost and time to conduct renegotiation (Bajari et al., 2014). Meanwhile, Abdallah, Darayseh, and Waples, (2013) stated that IC could lead to dispute and conflict. When a dispute occurs in the project, again, extra cost and time will need to be spent for dispute resolution. Another negative implication of IC is bidding distortion (Nur Syaimasyaza, 2017). Contracting parties realise that a contract cannot be complete and there will be renegotiation. Therefore, to increase their chances of winning a contract, they will submit a very attractive tender (but in reality, it is very hard to carry out) and they expect the contract will be renegotiated.

Based on the issues mentioned, it is significant to carry out the current research to assess the PROs and CONS implications of IC for the improvement of future PFI projects, as the contracting parties could refer to the implications identified in this research and come up with strategies to deal with it.

### **3. Research Questions**

- What are the PROs and CONS implications of having an incomplete contract for PFI projects?

### **4. Purpose of the Study**

To assess the PROs and CONS implications of IC in PFI projects.

## 5. Research Methods

An intensive literature review (LR) and two rounds of Modified Delphi (MD) were carried out in this research.

### 5.1. Literature Review

A literature review was carried out to study past researches, and what is their ideas and arguments concerning the subject matter (Naoum, 2013) i.e. implications of IC. Keywords such as contract, incomplete contract, PFI and construction were used to collect literature from several sources e.g. books, journals, published papers, conference proceedings, and others. Data from literature review were synthesised and they were used to develop the semi-structure questionnaires for MD.

### 5.2. Modified Delphi method

Modified Delphi (MD) method is a variation of the Delphi method. The variation refers to the number of rounds conducted (two or more rounds), structure of the first round interview (structured or unstructured), medium of interview (mail, email or face-to-face), interview process (synchronous or asynchronous) (Nur Syaimasyaza, 2017). Two rounds of MD were conducted involving 18 and 13 Malaysian PFI experts (Table 1). A semi-structured and structured questionnaire was developed in the first round and second round of MD respectively. The interviews were conducted face-to-face at the panellist's offices.

The list of implications identified from LR review were developed into a semi-structured questions. On a 5-point Likert scale (i.e. 1-Strongly disagree and 5-Strongly agree), the panellist needed to rate their degree of agreement with the PROs and CONs of IC stated. Mode and standard deviation (SD) were then used to analyse the responses. They are calculated to ascertain value that has the highest frequency in the data collected (Mode score) and ascertain variability of response and level of consensus (SD score) (Table 2). The results were then presented to the panellists in round two MD. The panellist can choose to re-rate their scores and if they did so, they need to justify their decision.

**Table 01.** Administration of MD method

	Description
Panellist criteria	<ul style="list-style-type: none"> <li>▪ Knowledge wise – have minimum a Degree in the field relevant to PFI projects, e.g. engineer, architect, others.</li> <li>▪ Skills – capable in expressing objectivity in reference to their:                             <ol style="list-style-type: none"> <li>a. knowledge and experience in PFI projects e.g. planning, implementation, supervision, etc.; or</li> <li>b. the evidence of expertise e.g. past studies, publications, and positions.</li> </ol> </li> <li>▪ Work experience in PFI projects in Malaysia.</li> </ul>
Sample size	<ul style="list-style-type: none"> <li>▪ Expert identification was carried out through literature searches, web-search and pilot study.</li> <li>▪ Snowball technique.</li> <li>▪ 23 experts were identified and invited to be the panelists.</li> <li>▪ 18 participated in Round 1 (78.2% rate of response), 13 participated in Round 2 (72.2% rate of response).</li> </ul>

**Table 02.** Standard deviation and level of consensus (Nur Syaimasyaza, 2017)

Standard Deviation (SD)	Level of consensus achieved
$0 \leq X < 1$	High
$1 \leq X < 1.5$	Reasonable/ fair
$1.5 \leq X < 2$	Low
$2 \leq X$	No consensus

## 6. Findings

From LR, eight (8) PROs and six (6) CONs were identified. These implications were assessed by the panellist in the two rounds MD. In the first round, only one implication (P5) achieved mode score '2'. Meaning that most panellist 'Disagree' with P5 (Table 3). The rest of the implications obtained mode score '4', meaning that the panellist 'Agree' with the implications presented. All implications except P5, P6 and N6 obtained SD score under 1.00 which shows a 'high' level of consensus. Meanwhile, N2 obtained a perfect consensus (all panellists agree).

In the second round, all implications obtained mode score '4' (most panellists 'Agree'). In terms of the level of consensus, all implications (except N6), obtained SD score of less than 1.00, which shows a 'high' level of consensus.

**Table 03.** Mode and SD score for the two rounds MD (Nur Syaimasyaza, 2017)

Code	Implications	1 <sup>st</sup> round		2 <sup>nd</sup> round	
		Mode	SD	Mode	SD
<b>PROs</b>					
P1	IC is flexible in dealing with complexity of the environment	4	0.58	4	0.41
P2	IC is flexible in dealing with uncertainty of the environment	4	0.24	4	0.00
P3	Project welfare can be enhanced through renegotiation	4	0.71	4	0.83
P4	Project efficiency can be enhanced through renegotiation	4	0.47	4	0.55
P5	IC has lower transaction cost compared to complete contract	2	1.00	4	0.95
P6	The contracting parties' motivation increase when IC is used as it signal trust among the parties.	4	1.00	4	0.88
P7	Changes can be cost-effective if it is managed accordingly	4	0.47	4	0.55
P8	Changes can be implemented quickly if it is managed accordingly	4	0.65	4	0.55
<b>CONs</b>					
N1	Contracting parties are exposed to opportunistic behaviour e.g. initiates renegotiation, refuse to cooperate.	4	0.34	4	0.41
N2	IC cause dispute and conflict	4	0.00	4	0.00
N3	Time overruns due to the process of renegotiation, contract amendment, dispute resolution, variation, and etc.	4	0.24	4	0.28
N4	Cost overruns due to the process of renegotiation, contract amendment, dispute resolution, variation, and etc.	4	0.32	4	0.28
N5	Bidding distortion, i.e. underinvestment or overinvestment	4	0.78	4	0.88
N6	Renegotiation may jeopardise value for money and signify contract failure	4	1.02	4	1.09

Table 3 show that the panellists had achieved consensus that the PROs and CONs identified from LR are implications of IC for PFI projects in Malaysia. Based on the results, it is understood that IC could

have both PRO and CON. Thus, suitable action should be taken in order to ensure that the projects would be benefited from the PRO of IC and at the same time minimize the CON of IC.

## 7. Conclusion

This paper presents the outcome of a research to assess the PROs and CONs implication of IC in PFI projects. The results reveal that IC could have both PROs and CONs implication. Eight (8) PROs of IC have been identified and one implication that have been agreed by all panellist is the 'IC is flexible in dealing with uncertainty of the environment'. On the other hand, six (6) CONs of IC were identified and all panellist agree that 'IC cause dispute and conflict'.

The findings from this research could become guidance for PFI players to be prepared with appropriate strategies when dealing with implications of IC, especially the negative implication. Besides, PFI players could also propose strategies to improve or maintain the status quo of the positive implication. At the same time, finding from this research can assist contract drafters in improving the provisions in PFI contracts for future PFI projects.

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