THE AWARENESS OF PRIVATE FINANCE INITIATIVE (PFI)/PUBLIC PRIVATE PARTNERSHIP (PPP) PROJECTS: GOVERNMENT PERSPECTIVE

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ABSTRACT
Public Private Partnership (PPP) requires a project principal, which primarily is the government and private sector companies to work through a sharing of risks and benefits from a procured public sector project on a long-term collaborative basis. A similar type of procurement approach has been introduced in the United Kingdom (UK) in the early 1990’s known as the Private Finance Initiative (PFI). This is a form of PPP that combines a public procurement programme, where the public sector purchases capital items from the private sector, which then arranges project funding via private financing. The PF/PPP approach has been introduced in Malaysia through the government’s Ninth Malaysia Plan (9MP) in 2006 and since then a number of mega construction projects were sanctioned for provision. About a decade our construction industry and government authority disclosed to the PF/PPP scheme and what is lesson learn they get from this type of procurement. This paper presents the methodologies used to determine the level of knowledge and awareness of PF/PPP procurement process among government servant that involve in the PF/PPP programmes. Due to finding of the research most of government servants that involve in the PF/PPP procurement have a good and average knowledge about the process of PF/PPP procurement that implement in Malaysia. The poor level of knowledge happens because of minimal experience involve in the PF/PPP project, lack of references and inadequate of guideline PF/PPP procurement scheme.

Keywords: private finance initiative, public private partnership, procurement process.

INTRODUCTION
The application of Public Private Partnership (PPP)/ Private Finance Initiative (PFI) in construction projects has come to the fore over the last three decades According to Kato (2001) the PFI scheme has been widely implemented in many countries around the world and this form of procurement system has been increasingly important over the past decade. PPP/PFI approach has originated when governments with limited financial capabilities has been forced to look for creative ways to procure public projects in order to meet the demands of rapidly growing population and economy of the country. Significant with this condition, Public Private Partnership (PPP) has increasingly becoming a favorable procurement strategy to governments around the world due to direct involvement of the private sector in modernizing public service deliveries.

The PPP concept is increasingly implemented by many countries and supported by a number of international institutions. Among the prominent countries are the USA, UK, Canada, Australia, South Africa, Japan, Finland, the World Bank, the European Investment Bank and the UN (Brook, P.J. (2001), Hamilton, G. (2001), Kouvarakis, T. (2001), The PFI Report (2001)). The PPP requires the principal and private sector to work on a collaborative basis, which involves sharing the risks and benefits from the procured construction project. By allowing each sector to do what it does best, the intended facilities and services for a PPP construction project are expected to be delivered in the most cost effective and efficient manner.

According to Pierson, G. and McBridge, P. (1996), PPP can be described as an agreement. Public sector bodies enter into long-term contractual agreement with private sector entities for the construction, management of public sector infrastructure by the private sector entity, provision of services by the private entity to the community. The National Council for Public–Private Partnership defines PPP as “contractual arrangement between a public sector agency and a for-profit private sector developer, whereby resources and risks are shared for the purpose of delivery of a public service or development of public infrastructure” (Li, B. and Akintoye, A. (2003), United Nations Development Programme (UNDP) (2005)). In the Malaysian context, the Ninth Malaysia Plan (9MP) defines PFI as involving the transfer of the responsibility of financing and managing capital investment and services in relation to public sector assets to private sector (Economic Planning Unit (2006)). The decision of the Malaysian government to shift the procurement approach in the provision of public sector projects is mainly influenced by its expenditure policy and also financial constraints.

According to Netto, A. (2006), the Malaysian government is reluctant to spend large sums of money on development of public infrastructure projects due to insufficient public sector capital funding. With PFI/PPP procurement, the scope of procurement is expanded to reflect a broader content with the focus being shifted to developing an integrated solution. PFI/PPP in Malaysia is officially implemented by the Malaysian Government
through the Ninth Malaysia-Plan (2006-2010) under the National Privatization Plan (EPU, 2006). Malaysian government implementing PFI/PPP programmes in a decade timeframe. Refer to Sagalyn (2007) contended that existing Public–Private (PP) projects have three generations. In the first generation, mistakes easily emerged due to lack of experience by public and private partners and their consultants. In the second generation, large development companies developed specialized PP urban development projects, often by employing planners who managed PP projects for public entities or led PP corporations. As a result of social development, the third generation has emerged, which are PPP projects initiated by developers seeking private-sector involvement. Thus, the knowledge transfer on contracts approaches among project governances is debated as most professionals did not understand the underlying concept well and for which is still vague (A.C.R Cooke et al. 2007). Since the fundamentals of PPP/PFI contracting still new in Malaysia, the contract clauses still contain gaps which subjected to contract incompleteness issue. The contract incompleteness is referring to the missing element of sustainable development which is not properly tailored in PPP/PFI contracts. Furthermore, the fundamental knowledge on sustainable development is still low among professionals causing poor implementation of the essences in PPP/PFI projects (M.Farmi et al., 2011). The objective of this research is to determine the knowledge and awareness of PFI/PPP procurement implemented by authority perspective.

RESEARCH METHODOLOGY

This paper investigates the understanding and awareness of PFI/PPP procurement process practiced among government servant based on the guideline by 3PU and the basic fundamental of PFI/PPP. In other to determine the knowledge and awareness about PFI/PPP implemented in Malaysia, a set of survey questions is distributed amongst public department involved in industrial procurement to the Malaysian construction and also an interview have been conducted.

Fellows and Liu (2003) stated that research methodology refers to the principles and procedures of logical thought which are applied to a scientific investigation while research method concerns the techniques which are available and those which are actually employed in a research project. In the construction management field, the triangulation method is commonly carried out using four standard methods include: (1) Case study; (2) Interview; (3) Questionnaire (4) Literature review. Therefore, this research combines these methods to collect information and data on Public Private Partnership (PPP) project in Malaysia. The combination between these techniques is properly formulated so that the research objectives would be achieved.

The type of questionnaire used in this study is an open ended questions. It is significant with the grounded theory that used for data analysis. According to Strauss and Corbin (1990), the research question in grounded theory should be open-ended and should not be compatible with simple ‘yes/no’ answers. It should identify the phenomenon of interest without making assumptions about it.

The chosen departments are the agencies functioning as an authority parties responsible to monitor the performance of PFI/PPP project and promote the implementation of the PFI/PPP indirectly. The survey questions are subjected to the fundamental knowledge of the PFI/PPP and its procurement processes implemented in Malaysia. The type of scale used in this study is defined in Table-1.

Table-1. Scale of questionnaire evaluation.

<table>
<thead>
<tr>
<th>Good</th>
<th>All the answer is correct for each category. Correct description and explanation about the answer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>Correct answer is less than wrong answer for each category. No description about answer or inappropriate explanation.</td>
</tr>
<tr>
<td>Poor</td>
<td>No Correct answer for each category. No description about answer or wrong explanation.</td>
</tr>
</tbody>
</table>

Interview is a good way to acknowledge experience. According Ghauri & Grönhaug (2005), there are three ways doing the research interviews which are structured, semi structured and unstructured (Fellows, 2002). S.J. Simister and S.D. Green (1997) stated that the interview should be conducted with carefully to avoid the useless data collection. In addition, the interview questions should be with thorough thought to avoid any misunderstandings. Structured interviews should implement the appropriate techniques so that the result is achieved effectively and efficiently. Due to that reason the structured interview has been used in this study.

This study is use grounded theory for data analysis. Grounded theory is a methodology which involves a systematic process of gathering and analysing a finite set of data to evolve a theory based upon the data. The theory may then be used to predict and explain phenomena (Glaser and Strauss, 1967) Three main categories of data are used in grounded theory research are field data(notes), interview data(notes, recording, transcripts) and any other existing literature (Douglas, 2003). The Microsoft Excel is use to generate a graph.

RESPONDENT AND SAMPLING

The categories respondent that used in this research is the government servant that involve in the PFI/PPP project and procurement. The selected respondent that used in this study is random sampling by using ‘Small Sample Technique’(Krejcie. Robert V&Morgan. Daryle W
The actual sample size for this research will be determined by using:

\[ s = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2(1-P)} \]  

(1)

Where,

- \( s \) = required sample size.
- \( X^2 \) = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
- \( N \) = the population size.
- \( P \) = the population proportion (assumed to be 0.5 since this would provide the maximum sample size).
- \( d \) = the degree of accuracy expressed as a proportion (.05)

The total of respondents in this study are 80 government servants from different authority departments such as Public Private Partnerships Unit (3PU) and Malaysia Highway Authority (MHA). Only 47 among the respondents had been given a feedback. By calculation the minimal numbers of sample size is 66. But according to Fellows (2002), 30% from the population of respondent is acceptable for postal questionnaire. Base on this statement, 24 respondents is enough for the sample size requirement. The demographic of the respondent for this study is state in Table-2.

### Table-2. Demographic data of respondent.

<table>
<thead>
<tr>
<th>Item</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male = 18</td>
</tr>
<tr>
<td></td>
<td>Female = 29</td>
</tr>
<tr>
<td>Experience involve in PFI/PPP</td>
<td>below 1 year = 6</td>
</tr>
<tr>
<td></td>
<td>1-3 years = 10</td>
</tr>
<tr>
<td></td>
<td>4-6 years = 22</td>
</tr>
<tr>
<td></td>
<td>7-10 years = 9</td>
</tr>
</tbody>
</table>

**RESULT AND DISCUSSION**

Based on the survey and interview conducted, the result of knowledge and awareness of PFI/PPP procurement implement in Malaysia can described into four categories such as fundamental knowledge about PFI/PPP, Procurement process during planning and design stage, Procurement implementation for operational stage and procurement process at hand over stage. The awareness and knowledge all about this item is very important and helpful on how to manage the PFI/PPP project and recognize the status of the project.

**Fundamental**

The fundamental categories used, to identify whether the authority officer or government servant involve in PFI/PPP project recognize characteristic of PFI/PPP procurement. It is because the PFI/PPP scheme is very different with the conventional procurement and quite similar with the privatization. The PFI/PPP procurement is different in aspect of funding, risk mitigation, payment mechanism and value for money. The funding for the PFI project scheme is hundred percent came from the private. If only one percent of funding comes from the government, it called a Public Private Partnerships (PPP). In traditional procurement, funding is come from the owner of the project or government. By using the PFI/PPP procurement will help reduce the debt certified by government in infrastructure project through delegate its’ to private company.

In the PPP/PFI project, the contractor or concessionaires have to be responsible regarding the risk mitigation. They have to be aware if there are any problem occurs related to the project during planning and design stage, construction, operation and maintenance stage until handover back to government. If the problem or risk is cause by authority, the concessionaire can proceed the claim to the government.

The payment mechanism using in the PFI/PPP scheme is to refund back all the funding that had been invest in the project through revenue collection or tenant fee. The duration of refundable is along the concession period and it is depends to the end user service performance by the concessionaire. If the users satisfied towards the service, the concessionaire will get the refund of the fund invested in the project in a short term period. This condition indirectly will enforce the concessionaire to monitor and control the quality of the project from the start until handover to government. It is for the prevention of cost overrun that may be happened due to poor quality of work.

The value for money is the concept that implement in PFI/PPP project. The Public Sector Comparator (PSC) will use this concept as a tool to make decisions by evaluate whether a private investment proposal offers better value-for-money than public procurement. This includes the benefit that the government and the end user will get in the short term or long term period. In traditional procurement, normally the lowest bidder will be chosen to get the project. This situation will give risk to the government on the quality of construction, poor workmanship and the most serious problem can be

Occur is the project will be abandoned. Refer to Public Private Partnership Unit (3PU) Malaysia Guideline the characteristic of PPP procurements are,

- a) Funding via private financial resources without public sector’s explicit guarantee.
- b) Impact on public budget spreads over the duration of the concession.
- c) Risks are allocated to parties which can manage them most efficiently
- d) Public sector’s involvement is through enforcement of pre-agreed KPIs.
- e) Long duration of relationship with private contractors.
f) Applicable for projects which are commercially viable where public sector is the main purchaser of the output.

Economic Planning Unit, 2006 defines PPP/PFI as “a process that transfers the responsibility of financing and managing capital investment and services in relation to public sector assets to private sector”. The result of knowledge and awareness for fundamental category is shown in Figure-1.

![Figure-1. Level of knowledge and awareness about fundamental of PFI/PPP procurement.](image)

There are 30 respondents in this research who have a good level of knowledge about term PFI/PPP and 7 respondents who don’t have knowledge about it. The reason they have lack of knowledge is because they are new in PFI/PPP procurement. Most of the respondent has an ability to differentiate between PFI/PPP procurement compare to traditional procurement. 18 of the respondent have a good level of knowledge, 20 of them are average and the rest is poor.

Based on experience and knowledge in traditional procurement, they can differentiate and recognize it very well. For the category recognizing of PFI/PPP characteristic, 21 of the respondents are good, 10 of them at the average level and the balance, 16 of the respondents are poor. Most of them are at the poor level because they might be confused about Public Private Partnership (PPP) compare to Joint Venture Scheme (JV) and Design and Built (D&B) scheme. Those schemes are quite similar to each other. According to Ng Weng Seng and Aminah Md Yusof (2006), Design and Build provides single point responsibility for the whole design and construction. Contractors, who are responsible for the implementation of the project, have the power to control all over the projects. This nonetheless does not deter the involvement of the client. The client’s need and requirements are always been taken into consideration.

Otherwise, joint venture is a procedure used to respond to specific business phenomena such as access to new markets, specific government policy, business capacity, technology transfer or economies of scale (Adnan, H and Morledge, R, 2003). By knowing the fundamental knowledge of PFI/PPP procurement will help the government servant that involve in procurement process recognize and identify the characteristic of PFI/PPP project and differentiate it’s with traditional procurement. It’s also help in handling and management process for government servant to deal with the parties that involve in the project when facing the problem.

**Procurement process during planning and design stage**

Planning and design stage is a very important part of the PFI/PPP scheme. The PFI/PPP procurement is based on the item that agreed in the planning and design stage and it is state in the contract document that tied up between government and the concessionaire. The question criteria for procurement process during planning and design stage are type of proposal, statement of need, specification output, outline business case, authority involve, process of approval and economic parameter.

There are two types of proposals used in the PFI/PPP procurement such as Solicited and unsolicited. The solicited proposal is proposed by public client and unsolicited is proposed by private contractor. Both of these proposals are submitted to the government for approval of PFI/PPP procurement. The statement of need is one of important criteria in the PFI/PPP procurement planning and design stage. The statement of need typically outlines all the needs and requirement of the client in a particular PFI/PPP project. This includes scope and specification outputs, Key Performance Indicator (KPI), term and condition of concession agreement, risk mitigation, and payment mechanism. This entire items form the backbone of the PFI/PPP procurement process.

Specification output is related to the design of the project. It is contains a technical detail about the design of the project. Usually a specification output ought to comply with the requirements as specified by the Standard and Cost Committee of the Economic Planning Unit. The latter is responsible to evaluate and analyses proposed scope as well as materials and finishes of the project to ensure output efficiency and cost effective (3PU).

Hence the outline business case is a document that brief detail about the project. It is quite similar with the statement of need but it is explain more detail and depth about the project. The outline business case contains a feasibility study that explain impact of the project to surrounding area, economic, environmental and community if its construct.

Economic parameter is a factor that has been taken into consideration to ensure the PFI/PPP project is sustainable and has a potential to success. The economic parameter usually used for PFI/PPP procurement are Inflation rate, net present value (NPV), interest rate, cash flow, internal rate of return (IRR), cash lock up and the break event point. These factors are significant to capital cost and payback of the fund for the PFI/PPP project. These aspects also included in outline business case for evaluate prospect of the project and value-for-money. Public Sector Comparator (PSC) is others method used to evaluate value for money whether private investment
Proposal offers better value-for-money than public procurement.

The entire item that explains above will be combined to create a contract document and produce as a concession agreement after award process. Furthermore, planning and design stage also included about how the process of approval for the PFI/PPP project and authority involved. The authority involved in the approval of PFI/PPP proposal is committee of 3PU or JKAS and ministry cabinet. The authorities that responsible in monitoring process are Malaysia Highway Authority (MHA) and Public Works Department (JKR) for highway projects. If the project is building such as prison, hospital, dam etc., Construction Industry Development Board (CIDB) and Public Works Department (JKR) will involve. Ministry of Finance (MoF) is involved on financing the project.

Ministry of Finance (MoF) is involved on financing the project. The Outline Business Case is a support document to PFI/PPP procurement in Malaysia for highway is through toll collection and non-toll revenues. The type of toll system is an open and closed systems. Closed system requires the toll user to take a transit card at the entrance of the highway and pay the fee at the exit. The open system however, the user needs to pay the fee every time entering the highway. Other source of revenue is non-toll revenue or third party revenue such as advertising board, tenant fee from R&R, pump station and kiosk. All of these factors can be used as revenue.

Concession period is duration agreed for concessionaire to construct, operate and maintain the PFI/PPP projects before transferring it to the government. Normally duration of concession period is 30-40 years.

Procurement implementation for operational stage

Operational stage is an output of the planning and design stage. The entire requirement agreed in the planning and design stage constructed into actual project and must be maintained for a concession period timeframe. The most important part for this stage is the method used to control the performance quality to produce an optimum service. In this stage the method use to generate revenue is very important. This is because the profit gained is used to cover all the cost funded by concessionaire. Due to that if the end user satisfy with the service, the numbers of user will increase and generate more income to concessionaire. The income from the revenue is used to cover back all the cost that had been fund for the project and maintenance. If all the funding has been covered up, the profit of the project will be share between government and concessionaire. The charge that bears to the user will be reduce.

Criteria set of questions in this stage is payment mechanism, concession period, equity owner, toll system, method of quality control, and sources of third party revenue. The payment mechanism is a process of payback all the cost that funded for the project. This is included cost of design and planning, construction, operation and maintenance and hand over the project to client. The practice of payment mechanism that implemented in Malaysia for highway is through toll collection and non-toll revenues. The type of toll system is an open and closed systems. Closed system requires the toll user to take a transit card at the entrance of the highway and pay the fee at the exit. The open system however, the user needs to pay the fee every time entering the highway. Other source of revenue is non-toll revenue or third party revenue such as advertising board, tenant fee from R&R, pump station and kiosk. All of these factors can be used as revenue.

Concession period is duration agreed for concessionaire to construct, operate and maintain the PFI/PPP projects before transferring it to the government. Normally duration of concession period is 30-40 years.
With consideration of long term contract, the performance bond, maintenance bond and equity owner are used to control the performance and service of the concessionaire. The performance bond is a five percent of the contract value for construction work as a guarantee to government due to construction progress. The maintenance bond is a further security for government after construction stage to procure performance during operation phase. It’s related to maintenance work and structural overlay obligation. The value of maintenance bond depends on the contract and it’s stated in a concession agreement. Others method to control the performance quality of services for both parties, is termination enforcement. The termination of contract is applied when the parties involved in the PFI/PPP project breach the obligation stated in the concession agreement whether it is authority default, concessionaire default or force majeure. Force majeure is an event, not within control of the party affected, which that party is unable to prevent or avoid it. There is also having compensation enforcement when the authority breaches the contract that related to revenue. These compensation enforcement used as a method to procure concessionaire in getting back all the funded that invest in the project.

The equity owner holding is the methods used ensure the work progress and helps the authority to deal with only one equity owner. The minimum year’s equity owners should maintain their equity holding is five years after the project involved to be operational. The finding of this survey for the level of knowledge and awareness among the respondent involved is shown in Figure-3.

According to the result, most of the respondents have a good lesson learn about the output of concession agreement used for PFI/PPP scheme. The range numbers of respondents who have a good level knowledge in criteria payment mechanism, concession period, equity owner, toll system, method of performance quality control and sources of third party revenue are 19 to 47. This entire item is a legal framework enforce in the PFI/PPP scheme and state in the concession agreement. By understand of these items, the process of management and monitoring will going to be smooth. With consideration for all of these criteria, the parties involved in PFI/PPP project are alert about responsibility and legal framework to enforce.

**Procurement process at hand over stage**

The last stage of the procurement process in the PFI/PPP scheme is a hand over stage. The process involved in this stage is audit process to ensure the asset is in ‘Good working order’ and transfer of ownership. ‘Good working Order’ is a process to ensure the asset are well functioned and in good performance. If the asset has a problem the concessionaire must repair and ensure its optimum performance before audit. The audit process is twenty four (24) month duration before expiration of concession period. There is an option for the government to transfer the ownership of the asset to other concessionaire after the concession period expired. This can be done if the government satisfies with the older concessionaire. The result of the knowledge and awareness amongst respondent involved for procurement process at hand over stage is quite low. It is about 19 respondent have a good level of knowledge in audit process and 21 in transfer process. The result is reflecting to the current condition of PFI/PPP project in Malaysia. There are very limited numbers of PFI/PPP project have achieved for this stage and most of the government servant did not have an experience to handle it. The result for this category is shown in Figure-4.

**CONCLUSION AND RECOMMENDATION**

As the conclusion from this study, most of the authority or government servants who involved in the PFI/PPP procurement have a good and average knowledge about the process of PFI/PPP procurement implemented in Malaysia.

The poor level of knowledge happened because of minimal experience in the PFI/PPP project and lack of references. Due to the results, our country is now in first generation for PFI/PPP where mistakes easily emerged.
Due to lack of experience by public and private partners and their consultants. It’s also significant with the failure of tried to knowledge transfer on contracts approaches amongst project governances where most of the professionals did not understand the underlying concept implemented.

This condition is happen because in our country there are shortages of expertise and experience authority in handling PFI/PPP project. It is also significant with the inadequate of PFI/PPP procurement guideline used in Malaysia. With proper and complete PFI/PPP procurement guideline support by lesson learn from PFI/PPP project develop in Malaysia, the authority can understand in depth about PFI/PPP procurement scheme. It is highly recommended that our authority should produce proper manual PFI/PPP procurement guidelines as a main reference for handling and manage PFI/PPP project. By produce the good guideline for PFI/PPP scheme, it’s will give a positive impact to authority for handling and manage the PFI/PPP project.

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