

PERPUSTAKAAN UMP



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**STUDY ON THE EFFECT**

**PROJECT IN MALAYSIA**

**PARTNERSHIP (PPP)**

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## ABSTRACT

Public Private Partnership (PPP) is a globally accepted public sector procurement mechanism whereby the government engages commitment from private sector and transfers a certain level of responsibilities to the private sector in providing public facilities or services. PPP involves the transfer to the private sector the responsibility to finance and manage a package of capital investment and services including the construction, management, maintenance, refurbishment and replacement of public sector assets such as buildings, infrastructure, equipment and other facilities, which creates a standalone business. Several cases of BOT ventures that had run into problems due to cost overruns, unrealistic price and income projections, and legal disputes between private operators and the government. PPP projects also would incur higher cost of capital than the traditional public financing due to incorporation of equity risk as risk are borne by private sector. This study was carried out based on literature review and a questionnaire survey. Average index calculation was employed to assess level of effectiveness of Public Private Partnership (PPP) project in Malaysia. This study were identified to highlight the effectiveness of Public Private Partnership project in Malaysia, to investigate the best conditions under which PPP is more appropriate and to identify the benefits, success and difficulties of PPP. The overall result shows the suitable type of project for the PPP project is value for money and the reason for implementation the PPP is for large projects. The factor leading to successful project of PPP is value for money achieved and the profound problems of the PPP is the government interference.

## ABSTRAK

Perkongsian Awam Swasta (PPP) adalah mekanisme perolehan sektor awam yang diterima di peringkat global di mana ianya melibatkan komitmen diantara pihak kerajaan dan sektor swasta dan memindahkan tanggungjawab dari pihak kerajaan kepada sektor swasta dalam menyediakan kemudahan atau perkhidmatan awam. PPP melibatkan pemindahan tanggungjawab dari pihak kerajaan kepada sektor swasta dalam membiayai dan mengurus satu pelaburan modal dan perkhidmatan termasuk pembinaan, pengurusan, penyenggaraan, pembaikan dan penggantian aset sektor awam seperti bangunan, infrastruktur, peralatan dan kemudahan lain, yang mewujudkan suatu perniagaan yang berdiri sendiri. Beberapa projek usahasama yang menggunakan kaedah BOT telah menghadapi masalah disebabkan oleh lebih kos, harga dan hasil pendapatan yang tidak realistik, dan pertikaian undang-undang diantara sektor swasta dan pihak kerajaan. Projek PPP juga akan menanggung kos modal yang lebih tinggi daripada pembiayaan awam yang menggunakan kaedah tradisional ini kerana ekuiti risiko pemerbadanan akan ditanggung oleh sektor swasta. Kajian ini dijalankan berdasarkan kajian soal selidik. Pengiraan indeks purata telah digunakan untuk menilai tahap keberkesanan projek Perkongsian Awam Swasta (PPP) di Malaysia. Kajian ini telah dikenal pasti untuk menonjolkan keberkesanan projek Perkongsian Awam Swasta di Malaysia, untuk mengkaji keadaan yang sesuai untuk penggunaan PPP, untuk mengenalpasti manfaat, kejayaan dan kesukaran PPP. Keputusan keseluruhan menunjukkan bahawa pelaksanaan PPP memberi nilai kepada wang dan pelaksanaannya bersesuaian dalam pengendalian projek-projek yang besar. Faktor yang membawa kepada kejayaan projek PPP adalah pencapaian nilai untuk wang itu sendiri dan masalah yang dihadapi oleh projek PPP adalah campurtangan daripada pihak kerajaan.

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**LIST OF SYMBOLS**

AI	Average Index
Wi	Constant expressing the weight given to i
Xi	Frequency of the $i^{\text{th}}$ Response Given as Percentage of the Total Responses for Each Factor.

**LIST OF ABBREVIATIONS**

<b>PPP</b>	<b>Public Private Partnership</b>
<b>PFI</b>	<b>Private Finance Initiative</b>
<b>CIDB</b>	<b>Construction Industry Development Board</b>
<b>BOT</b>	<b>Build, Operate and Transfer</b>
<b>BOOT</b>	<b>Build, Operate, Own and Transfer</b>
<b>KPI's</b>	<b>Key Performance Indicators</b>
<b>DBFO</b>	<b>Design Build Finance Operate</b>

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 INTRODUCTION**

Public Private Partnership (PPP) is a globally accepted public sector procurement mechanism whereby the government engages commitment from private sector and transfers a certain level of responsibilities to the private sector in providing public facilities or services. Public Private Partnership (PPP) is an increasingly popular choice for policymakers in implementing important public works projects especially in the face of a shortage of government financial resources and where it is necessary to counter public inefficiency (Terry, 1996 and Alfen et al., 2009). PPP enables governments that are already stretched for resources with the present economic climate, to utilize alternative private sector sources of finance while simultaneously gaining the benefits that the private sector can bring in terms of skills and management. Ultimately PPP can bring greater value for money from public sector resources (Treasury Taskforce, 1999; Robinson, 2000, Shoul, 2002, Ninth Malaysia Plan, 2006).

In Malaysia, PPP projects have grown at an accelerated pace since 1980s due to few enforcing factors including the government agenda to foster greater private sector involvement in the country's development projects by offering attractive incentives and the rapid growth of construction projects as part of the country's development plan (Endut et al., 2006 and Ismail, 2012). In particular, the evolution of PPP in Malaysia had started with the Malaysia Incorporated program (Fourth Malaysia Plan, 1981) and was followed by the privatization programmed (Fifth Malaysia Plan, 1985). Later, under the Ninth Malaysia Plan, the government's agenda to encourage greater participation of the private sector in the government projects was materialized when the Private Finance Initiative programmed was officially unveiled (Ninth Malaysia Plan, 2006). More recently, in the Tenth Malaysia Plan, the persistent continuous effort of the Malaysian government in promoting private sector involvement was revealed with the announcement of more development projects to be implemented using the PPP scheme (Tenth Malaysia Plan, 2010).

## **1.2 PROBLEM STATEMENT**

PPP involves the transfer to the private sector the responsibility to finance and manage a package of capital investment and services including the construction, management, maintenance, refurbishment and replacement of public sector assets such as buildings, infrastructure, equipment and other facilities, which creates a standalone business. In these PPP projects, there is a contract for the private party to deliver public infrastructure-based services over a long period of time. The private party will raise its own funds to finance the whole or part of the assets that will deliver the services based on agreed performances. Kumaraswamy and Zhang (2001) presented several cases of BOT ventures that had run into problems due to cost overruns, unrealistic price and income projections, and legal disputes between private operators and the government. PPP projects also would incur higher cost of capital than the traditional public financing due to incorporation of equity risk as risk are borne by private sector.

### **1.3 OBJECTIVES**

The objective of this study is to study the effectiveness of Private Public Partnership in Malaysia. Referring to the statement, the objectives have been identified are as follows:

- I. To highlight the effectiveness of Public Private Partnership project in Malaysia.
- II. To investigate the best conditions under which PPP is more appropriate
- III. To identify the benefits, success and difficulties of PPP.

### **1.4 SCOPE OF STUDY**

The researches were limited to construction project in Klang Valley and information will collect from literature study and surveys. Klang Valley was chosen due to construction project on Public Private Partnership are relatively higher. The survey will conduct through questionnaire and the respondents are from the public sector and private sector.

### **1.5 EXPECTED OUTCOME**

The findings of this project are believed to be beneficial to the parties involved in the construction industry. The level and effectiveness of PPP project in Malaysia to achieve a successful completion of construction project.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

Public is refer to public agency as the driven party who initiate the project when private is having delivery responsibility and partnership is bonding between individuals or groups that is the mutual cooperation and responsibility, as for the achievement of a specified goal. Private Public Partnership (PPP) is the relation between public sector and private entities which are both of it create mutuality from each other expertise in order to achieve goal for the provision of infrastructure or service. Private sector normally as a financier, designer and operator whereas public as the resource provider. Each party also has ability to share the risk, resource and rewards.

## 2.2 CORRELATION OF PARTNERSHIP

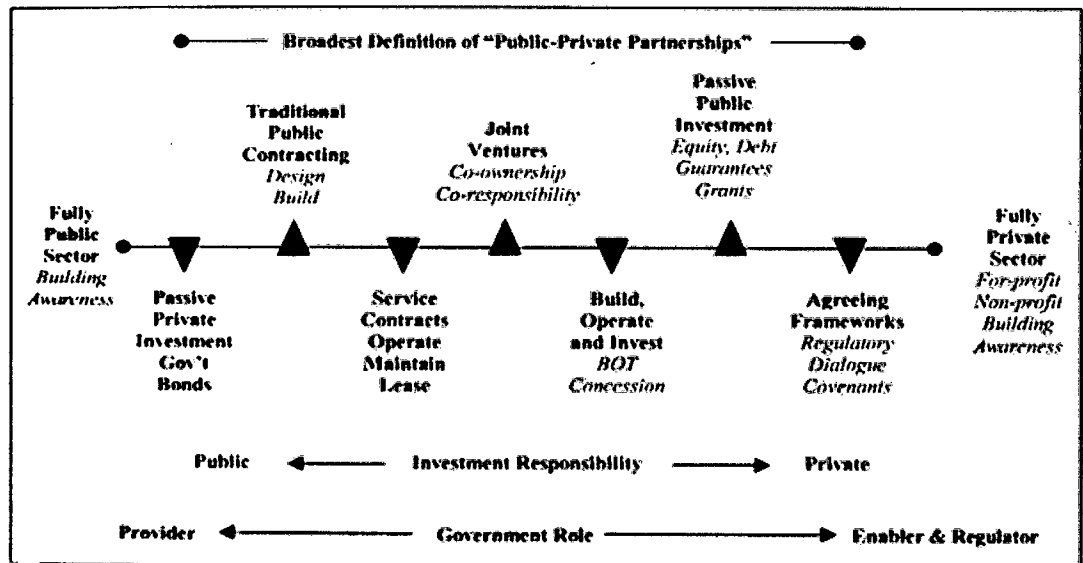
Public – private partnerships are enjoying a global resurgence in popularity, but there is still much confusion around notions of partnership, what can be learned from our history with partnerships, and what is new about the partnership forms that are in vogue today (Hodge and Greve, 2007). In Malaysia, privatization was introduced in 1983 to support the Malaysian Incorporated Policy to increase the private sector involvement in the economic development (UKAS, 2013). But then, PPP become alternative choice for the government when this concept were announced as one of the approaches that be used in country economic development (Ninth Malaysia Plan, (2006); Tenth Malaysia Plan, (2010)).

Partnership begins with various types where every single of it have different characteristics according to the project that applied. Concept of partnership includes the principle where it describes venture between organizations or groups that shares aim and goals besides resources and responsibilities involve in the process of new development structure or enhance access to services for users (Valerie *et al*, 2008). The confusion of partnership begin when the term that been applied in the project. According Singaravelloo (2010), the confusion is on application of terms which namely privatization and PPP. Moreover, Linder (1999) make distinguishes between privatization and PPP to make clearance about the used terms. According to him, the concept of the terms former entailed from cooperation and joint venture.

From the terminologies, privatization and PPP including in most cases that related, the asset is returned to the government at the end of a concession period. PPP describes as a wide range of arrangements whereby government responsibilities are outsourced to commercial partners, and risk is shared between the public and private sectors to bring about desired outcomes in areas associated with public policy (Alfen and Wilhelm *et al*, 2009). However, David (2004) stated the term privatization has been used variously to describe state asset sales, the contracting out of government services, public–private partnerships, and certain other reforms involving the reduction in direct state provision of

goods and services. Also, he discussed the correlation between both term is lead to arguably where it is very misleading to refer to changes, such as contracting out and public-private partnerships, as privatization because the state remains primarily responsible for deciding the outputs and sometimes the inputs, instead of the market.

Sometimes, even the term such as privatization been defined as well but the definition will bring the same concept where it is actually based on the main principle. According to Engel *et al* (2008), PPP cannot be justified just because it is free public funds, PPP are closer to public provision than to privatization. The correlation between terms can be proven according to the sequence by Gidman *et al* (1995). Figure 2 shown the chronology of the terms where the idea is related to each other.



**Figure 2.1:** Dimension of Possible Relationship Involving Public Private Sector Partnership.

Some researcher defined PPP derived from privatization. For example, Savas (2000) keeps to belief that by viewing PPP as a form of privatization and contracting out where the private sector and the government develop a capital intensive infrastructure using mostly private financing, and subsequently operate under concession by the private partner



for stipulated period of time. However, Hodge and Coghill (2007) see the privatization have weakness until Hodge and Greve (2007) stated one of the strongest points of PPP is the existence of a strong organizational and financial relationship between the public and private sectors operators, especially involving joint venture, joint stock companies and joint development projects.

### 2.3 TYPES OF PPP

There are four main types of PPP, each having its own strengths and weaknesses, as follows:

- Contracting
- Build–Own-Operate (BOT)
- Design-Build-Finance-Operate (DBFO) Concession
- Concession

Each PPP structure has strengths and weaknesses which must be recognized and integrated. The main features, applications, strengths and weaknesses of these PPP-arrangements are presented in the Table 2.1.

**Table 2.1: Strengths and Weaknesses of PPP Arrangements**

PPP Type	Main Features	Application	Strength	Weakness
Contracting	Contract with Private party to design & build public facility Facility is financed & owned by public sector Key driver is the transfer of design and construction risk.	Suited to capital projects with small operating requirement. Suited to capital projects where the public sector wishes to retain operating responsibility.	Transfer of design and construction risk Potential to accelerate construction program.	Possible conflict between planning and environmental considerations. May increase operational risk. Commissioning stage is critical. Limited incentive for whole life costing approach to design.

				Does not attract private finance
BOT	<p>Contract with a private sector contractor to design, build and operate a public facility for a defined period, after which the facility is handed back to the public sector.</p> <p>The facility is financed by the public sector and remains in public ownership throughout the contract.</p> <p>Key driver is the transfer of operating risk in addition to design and construction risk.</p>	<p>Suited to projects that involve a significant operating content. Particularly suited to water and waste projects.</p>	<p>Transfer of design, construction and operating risk</p> <p>Potential to accelerate construction</p> <p>Risk transfer provides incentive for adoption of whole life costing approach</p> <p>Promotes private sector innovation and improved value for money.</p> <p>Improved quality of operation and maintenance.</p> <p>Contracts can be holistic</p> <p>Government able to focus on core public sector responsibilities</p>	<p>Possible conflict between planning and environmental considerations.</p> <p>Contracts are more complex and tendering process can take longer</p> <p>Contract management and performance monitoring systems required.</p> <p>Cost of re-entering the business if operator proves unsatisfactory.</p>
DBFO	<p>Contract with a private party to design, build, operate and finance a facility for defined period, after which the facility reverts to</p>	<p>Suited to projects that involve significant operating content. Particularly suited to roads, water and waste projects.</p>	<p>As for BOT plus:</p> <p>Attracts private sector finance;</p> <p>Attracts debt finance discipline;</p>	<p>Possible conflict between planning and environmental considerations.</p> <p>Contracts can be more complex and tendering</p>

	<p>the public sector. The facility is owned by the private sector for the contract period and it recovers costs through public subvention. Key driver is the utilization of finance and transfer of Design, construction &amp; operating risk. Variant forms involve different combinations of the principle responsibilities.</p>		<p>Delivers more predictable and consistent cost profile; Greater potential for accelerated construction program; and Increased risk transfer provides greater incentive for private sector contractor to adopt a whole life costing approach to design.</p>	<p>process can take longer than for BOT. Contract management and Performance monitoring systems required. Cost of re-entering the business if operator proves unsatisfactory. Funding guarantees may be required. Change management system required.</p>
Concession	<p>As for DBFO except private party recovers costs from user charges. Key driver is the Polluter Pays Principle and utilizing private finance and transferring design, construction and operating risk.</p>	<p>Suited to projects that provide an opportunity for the introduction of user charging. Particularly suited to roads, water (nondomestic) and waste projects.</p>	<p>As for DBFO plus: Facilitates implementation of the Polluter Pays Principle; and Increases level of demand risk transfer and encourages generation of third party revenue.</p>	<p>As for DBFO plus: May not be politically acceptable Requires effective management of alternatives / substitutes, e.g. alternative transport routes; alternative waste disposal options)</p>

## 2.4 RISKS

Typically, the public sector is unable to manage risk well. Most often, public projects are late in completion and over budget. This is not in the public interest. A key characteristic of PPP is the transfer of risk from the public sector to the private sector. If the private sector is unable to complete construction on time and within budget, the government fails to pay. This principle also applies to the provision of contractual services. If services are not available or do not meet the agreed upon standards, the private party faces financial penalties. It is important to understand that government does not transfer all the risks to the private sector. Only those risks that the private party is best able to manage are transferred.

Table 2.2 is developed to summarize the allocation of risk for public-sector and private-sector infrastructure investments. It should however be noted that risk allocation varies from project to project (FHWA, 2007).

**Table 2.2: Risk Matrix for Public-Private Partnerships (Lewis, 2001)**

Type of Risk	Source of Risk	Risk Taker
<b>Site Risks</b>		
Site Conditions	Ground conditions, supporting structures	Construction contractor
Site Preparation	Site redemption, tenure, pollution/discharge, obtaining permits, community liaison	Operating company / project company
	Pre-existing liability	Government
Land use	Native title, cultural heritage	Government
<b>Technical Risk</b>		
Documentation	Fault in tender specifications	Government
	Contractor design fault	Design contractor
<b>Construction Risk</b>		

Cost overrun	Inefficient work practices and waste of materials	Construction contractor
	Changes in law, delays in approval, etc.	Project company/investors
Delay in completion	Lack of coordination of contractors, failure to obtain standard planning approvals	Construction contractor
Failure to meet performance criteria	Quality shortfall/defects in construction / commissioning tests failure	Construction contractor/project company
<b>Operating Risk</b>		
Operating cost overrun	Project company request for change in practice	Project company / investors
	Industrial relations, repairs, occupational health and safety, maintenance, other cost	Operator
	Government change to output Specifications	Government
Delays or interruption in operation	Operator fault	Operator
	Government delays in granting or renewing approvals, providing contracted outputs	Government
Shortfalls in service quality	Operator fault	Operator
	Project company fault	Project company / investors

## **2.5 BENEFITS OF PPP**

A number of benefits of PPP projects were described in a 2004 Report by FHWA (2004), as follows.

### **2.5.1 Significant cost savings**

The above report indicated that PPP could save 6 to 40 percent of the cost of construction as well as considerably lowering the potential of cost overruns (FHWA, 2004). An example was the Miami Port Tunnel Project. Projections were that, Florida Department of Transportation (FDOT) would need annual payments of \$68 million for the design, construction, operation and maintenance of the tunnel. However, all the three proposals from the private sector significantly lowered costs.

### **2.5.2 PPP encourages innovations and incorporate life-cycle costs**

PPP has a chance of encouraging the incorporation of life-cycle costs in the design and construction of infrastructure projects which often leads to delivery of a higher quality project. PPP also encourage the private sector to come up with creative and innovative measures for improving the quality of infrastructure.

### **2.5.3 Reduced time on project delivery**

The access to immediately available private sources of capital by the private sector helps shorten the delivery of PPP projects. The efficiency with which the project was delivered made PPP projects constructed faster than traditional projects. With the innovation in PPP delivery, repair and replacement of over 800 bridges were possible in the State of Missouri. The innovation was expected to get the bridges done in five years instead of initial twenty year projected duration.

#### **2.5.4 Value for money**

To decide whether or not to procure infrastructure through a normal tender process or with PPP, a value-for-money test needs to be applied. Considerations will have to be made on how much it will cost for government to provide infrastructure and services by itself compared to the costs of providing the same infrastructure and services through PPP. If the comparison shows that PPP is more cost-effective, the difference in cost will be the value-for-money. If the value-for-money test shows that the traditional procurement method is more cost-effective, the PPP option is not selected.

#### **2.5.5 Better risk allocation**

A main principle of any PPP is the allocation of risk to the party best able to manage it at least cost. This is purposely to optimize rather than maximize risk transfer, to ensure best value is achieved.

#### **2.5.6 Improved quality of service**

Experience suggests that the quality of service achieved under a PPP is often better than that achieved by other traditional procurement (United Nations Development Program, 2010). This may reflect the better integration of services with supporting assets, the introduction of innovation in service delivery, or the performance incentives and penalties typically included within a PPP contract. With most PPP projects, full payment to the private sector contractor only occurs if the required service standards are met throughout the project. Other benefits of PPP include:

- Maximizing the use of each sector's strength
- Reduction in public capital investment
- Better environmental compliance
- Shared resources between both sectors
- Mutual rewards for both sectors

## **2.6 PPP IN THE GLOBAL AND MALAYSIA CONTEXT**

The wide adoption of PPP approach has consequently resulted in the emergence of various terms which are used to denote this arrangement. For example, another commonly used connotation for PPP is Private Finance Initiative (PFI), which is widely known in the U.K. In Australia, however, the scheme is better known as Privately Financed Project (PFP) (English and Guthrie 2003). The variety of terms annotated to the PPP scheme reflects the differences in the activities and the structures as well the complexities surrounding the mechanism of this approach (Acar, Guo et al. 2008).

## **2.7 PPP ISSUES**

The discussion on the PPP type arrangement above shows that this method gives rise to issues that arise due to the 'blurred' boundary between the public and private sectors in providing the public infrastructure (Broadbent and Guthrie 1992). Accordingly, it is therefore necessary to review the issues arising from the adoption of the PPP approach, in an attempt to learn from the experience of other countries. This is discussed in the following section.

### **2.7.1 PPP: a Costly Approach?**

The earlier discussion raises the point that PPP projects are financed by the private sector. Financing is a very important aspect in the provision of public infrastructure due to its capital intensive nature. PPP is an attractive option because it allows the provision of public infrastructure that the government could not otherwise afford (Broadbent and Laughlin 2005), as these PPP projects are financed by the private sector. Privately financed