

**BEST VALUE MODEL FOR PUBLIC PRIVATE PARTNERSHIP  
INFRASTRUCTURE PROJECTS IN MALAYSIA**

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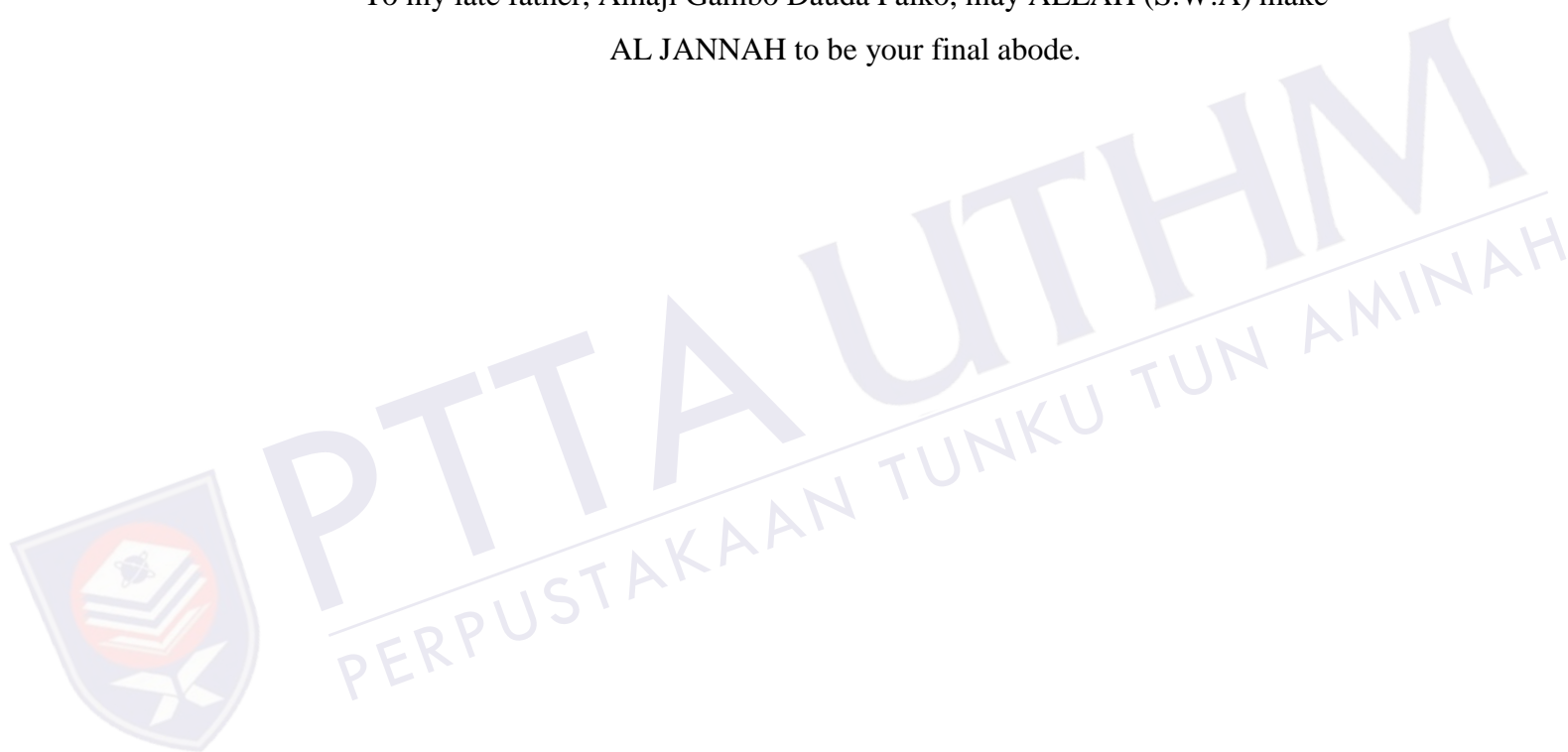
A thesis submitted in  
fulfillment of the requirement for the award of the  
Doctor of Philosophy in Real Estate and Facilities Management

Faculty of Technology Management and Business  
Universiti Tun Hussein Onn Malaysia

JULY 2015

## DEDICATION

To my late father, Alhaji Gambo Dauda Paiko, may ALLAH (S.W.A) make  
AL JANNAH to be your final abode.



## ACKNOWLEDGEMENT

All praise be to ALLAH, the most exalted and the most high, and to whom we all depend for sustenance and cherishment. My heartfelt thanks and gratitude extend to all the people who have contributed in any capacity either intellectually or emotionally throughout the three and half years of my doctoral studies.

First and foremost, I would like to express my deepest gratitude to my supervisor Associate Professor Dr Christy Pathrose Gomez for his valuable supervision during the entire period of my research study in Universiti Tun Hussein Onn Malaysia.

I would also like to thank the management of Universiti Tun Hussein Onn Malaysia for offering me the Graduate Research Project Grant Incentive Scheme (Vote No. 0819) and the International Students Scholarship for the duration of this program. Furthermore, I would also like to thank the entire academic and non-academic staff of the Faculty of Technology Management and Business also the Graduate School for their support.

Most importantly, I would like to express my immense gratitude to my mother, Hajiya Zainab Salihu for all the love, moral support and prayers.

I would also like to express my heartfelt gratitude to my brothers and sisters, for all their constant support and prayers, also to my brothers and sisters in law, and lastly to all my uncles, aunties, nieces and nephews.

My special thanks to my friends who were jointly pursuing their postgraduate studies in Malaysia, Ahmad Hussaini Jagaba, Muhammad Yahaya Musa, Ashwin Narendra Raut, Mansur Dodo, Abdulazeez Umar Raji, Ibrahim Salihu Anka, Abdulnasir & Nuhu Isah and all those whose names have not been stated here, i wish to thank them for their support. And also to my friends in Nigeria; Adamu Sambo, Bazallahi Muhammad, Usman Sulaiman and many others, thank you.

## ABSTRACT

The rapid human population growth rate coupled with the need for improved infrastructure project delivery has necessitated the participation of private sector for the procurement of such projects. Public Private Partnerships (PPP) is one such private sector driven procurement approach which has evolved to serve the growing demand for infrastructure development in Malaysia. However, the Value for Money (VfM) evaluative aspect of the PPP procurement form has faced criticism. Much of the criticism is directed to the PPP practice being riddled with issues identified as being related to the ineffective structuring of the private sector led project-specific Special Purpose Vehicle (SPV) to deliver VfM. Exploratory preliminary research findings indicate that there is a lack of overall long-term strategic focus by the SPV for delivering VfM objectives in PPP projects. Questionnaire survey data was obtained from a purposive sample of 48 public and private PPP practitioners in Peninsular Malaysia to determine the needed skills (core skills) and critical success factors (CSFs) required by the SPV to achieve their VfM objectives for PPP projects, and hence the successful delivery of PPP projects. The aim of the research is to develop a conceptual tool for delivering Best Value (BV) on PPP infrastructure projects. The notion of 'skill sets' is used as a means to scope the capability necessary with respect to agreed planning targets on specific projects. A Best Value PPP conceptual framework is developed as a heuristic tool for managers which proposes the embedding of the VfM aligned PPP SPV organizational skills into the operational structure of the SPV and then effecting the SPV organizational strategic measures according to the four perspectives of the Balanced Scorecard performance measurement strategy with respect to the CSFs. Drawing on the understanding that VfM objectives are critical denominators for effective PPP project delivery, this research will influence the development of appropriate guidelines for the effective structuring of the SPV's to enable the delivery of enhanced VfM objectives in the form of BV for PPP concession projects.

## ABSTRAK

Kepesatan peningkatan bilangan penduduk serta keperluan kemajuan dalam persediaan infrastruktur telah memerlukan penglibatan pihak swasta dalam proses perolehan projek-projek tersebut. Perkongsian Awam Swasta atau *Public Private Partnership* (PPP) adalah salah satu kaedah perolehan berdasarkan penglibatan pihak swasta yang telah berkembang bagi tujuan memenuhi keperluan peningkatan penyediaan infrastruktur di Malaysia. Walaubagaimanapun penilaian berdasarkan konsep Nilai Untuk Wang atau *Value for Money* (VfM) berkaitan dengan kaedah perolehan PPP telah banyak menerima kritikan. Kebanyakan kritikan ini ditumpu pada pengamalan PPP yang telah dikenalpasti dengan isu yang melibatkan kurang berkesannya struktur Syarikat Tujuan Khas atau *Special Purpose Vehicle* (SPV) yang ditubuhkan oleh pihak swasta bagi tujuan menunaikan tanggungjawab memenuhi kriteria VfM. Dapatan kajian penerokaan awalan menunjukkan bahawa kurangnya fokus jangka panjang yang strategik oleh SPV dalam mencapai objektif-objektif VfM bagi projek PPP di Malaysia. Data hasil kaji selidik yang melibatkan ‘sampel bertujuan’ (*purposive sample*) yang terdiri daripada pengamal PPP swasta dan awam telah dikumpul bagi tujuan mengenalpasti kemahiran yang diperlukan serta faktor-faktor kejayaan kritikal yang harus diperolehi oleh SPV bagi tujuan mencapai objektif-objektif VfM serta memastikan kejayaan projek infrastruktur berjenis PPP. Satu rangkakerja konseptual Nilai Terbaik atau *Best Value* (BV) yang terdiri daripada Elemen-elemen Kemahiran Syarikat SPV untuk mencapai objektif-objektif VfM dalam struktur operasinya SPV serta penubuhan langkah-langkah strategik SPV mengikut perspektif pelaksanaan strategik *Balanced Scorecard* (BSC) telah dihasilkan. Tujuan kajian ini adalah untuk membangunkan model konseptual bagi menyampaikan *Best Value* (BV) projek-projek infrastruktur PPP. Set Kemahiran digunakan untuk tujuan mengenalpasti keupayaan yang diperlukan berkenaan dengan sasaran perancangan yang telah di persetujui seiring dengan projek-

projek tertentu. Berdasarkan kefahaman bahawa objektif VfM adalah asas yang kritikal bagi tujuan menyempurnakan projek PPP, kajian ini dijangka akan mempengaruhi pembentukan garis panduan yang sesuai bagi tujuan membentuk struktur organisasi SPV supaya dapat mencapai objektif VfM dengan lebih berkesan yang dapat dihasilkan dalam bentuk BV bagi projek konsesi PPP.



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## LIST OF SYMBOLS AND ABBREVIATIONS

PPP	-	Public private partnership
SPV	-	Special purpose vehicle
VfM	-	Value for money
BV	-	Best Value
W	-	Summation of the weighing to each skill
A	-	Highest ranking
N	-	Total number of respondents for that skill



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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the study

Effective infrastructure is being considered as an important aspect of every nation's economy towards realizing its full potential of becoming a developed nation. According to Sanghi *et al.*, (2007), effective infrastructure plays a major role in determining the success of the key sectors of every economy, and also the provision of effective infrastructure in housing, water, energy and transport which are critical in achieving improved standard of living and also helps towards poverty reduction.

The growing participation of the developing nations in the free market system and also their active participation in the world economy has necessitated the need for improved infrastructural facilities to enable a sustained economic development. However, it is a known fact that these nations cannot effectively cope with the huge capital investments needed for the provision of these infrastructures (Pongsiri, 2002; Jamali, 2004).

Governments primarily face an ever increasing need to find sufficient financing to develop and maintain infrastructure required to support growing populations. Traditionally, this has been the reason for the private sector participation in resolving the infrastructure challenges facing the public sector (Cheung & Kajewski, 2010; Akintoye *et al.*, 2005); which was originally initiated under the banner of privatization and subsequently Public Private Partnerships (PPP).

As nations continue to witness a shortfall in the funds available for the provision of public infrastructure, PPP is being considered as an effective means of mitigating the problem of insufficient capital provided for the execution of infrastructure projects. The private capital that is being injected into the provision of such projects can go a long way in reducing the major risks that are being associated with the delays in progress payments by public clients. Thus, this will improve the effectiveness of the fiscal responsibilities of the government departments (Pongsiri, 2002; Akintoye *et al.*, 2005; Huang *et al.*, 2005), which is considered to be one of the key challenges faced by wholly public financed projects.

PPP can be described as a form of procuring public infrastructure which has evolved to solve infrastructural deficits. It is a system which is primarily aimed at achieving the best output possible by pulling together and mobilizing of funds, technologies, managerial skills, operational efficiencies and facilitating innovations that exists in the private sector (Njikamp *et al.*, 2002; Zhang, 2005). Basically, this is achieved by the transfer of the risks and responsibilities that are being associated with the provision of such infrastructure to the private sector. As noted by Pongsiri (2002), PPP provides a means of collaboration between the public and private sector in order to pursue common goals of providing infrastructural facilities, while taking advantage of the resources, strengths, competencies and capabilities that do exists in the public and private sectors.

According to Walker *et al.*, (1995) the several advantages that PPP offers as a means of procuring public infrastructure includes:

- a) The achievement and maintenance of a balance risk return structure as a result of the private sector participation in the provision of such public infrastructure, thereby utilizing the private sector capability of providing effective services.
- b) The private sector is known in possessing better mobility than the public sector, as it is known to offer cost savings in projects in such aspects as planning, design, construction and eventually, operation. Furthermore, it offers additional advantages of mitigating and relieving all the bureaucracies and administrative burden that is associated with the public provision of infrastructural facilities and services.
- c) Additionally, the private sector participation of providing infrastructure relieves the government of the huge financial burden that is associated with large scale infrastructure projects, as the government is known to be lacking in providing such huge resources that are required in the provision of such projects.

However, despite these advantages of the PPP, the infrastructure delivery approach is also known to have its disadvantages. Which these includes high tendering costs, payments of high operating costs by the public sector for rentals and leases, and also the costs savings achieved by the private sector are being retained as profits rather than passed on to the public sector (New Zealand Treasury, 2006; Gunawasa, 2012). Of late, PPP form of procurement for delivering services has progressed into various sectors of industry. Hence, other advantages that the PPP offers include enabling the government to focus on the provision of such social services as pension, health and education.

Traditionally, PPP projects were viewed as a feasible option for countries wanting to provide infrastructure facilities whilst being financially strapped, as in the case of many developing countries. The use of PPP as a means of providing infrastructure dates back to as far back as the 17th century, where the private sector was involved in the executioning of infrastructure projects like road tolling in the form of turnpikes in America and the United Kingdom (UK), and also public water systems in France. But then, it was only during the 1990's that the system became prominent where the Private Finance Initiative (PFI) became a well-known method of delivering public

infrastructure and services especially in the UK (Grimsey & Lewis, 2007; Cheung & Kajewski, 2010). PPP was first launched in the form of PFI in 1992 by the UK government with the main aim of getting infrastructural projects off the public balance sheet, cutting public spendings and also mitigating the constraints associated with the borrowing limits of the public sector (Li *et al.*, 2005). Since then, the system became a globally adopted approach for delivering public infrastructure projects. PPP infrastructure projects accounts for approximately 15 per cent of expenditure in infrastructure in the UK and 8 per cent in Australia (Ernst & Young, 2005). The system has also played a significant role in the provision of infrastructural projects and services in developing nations, where the level of annual investments in infrastructure projects by PPP in such countries has continued to grow consistently right from 1990 as shown in Figure 1.1.

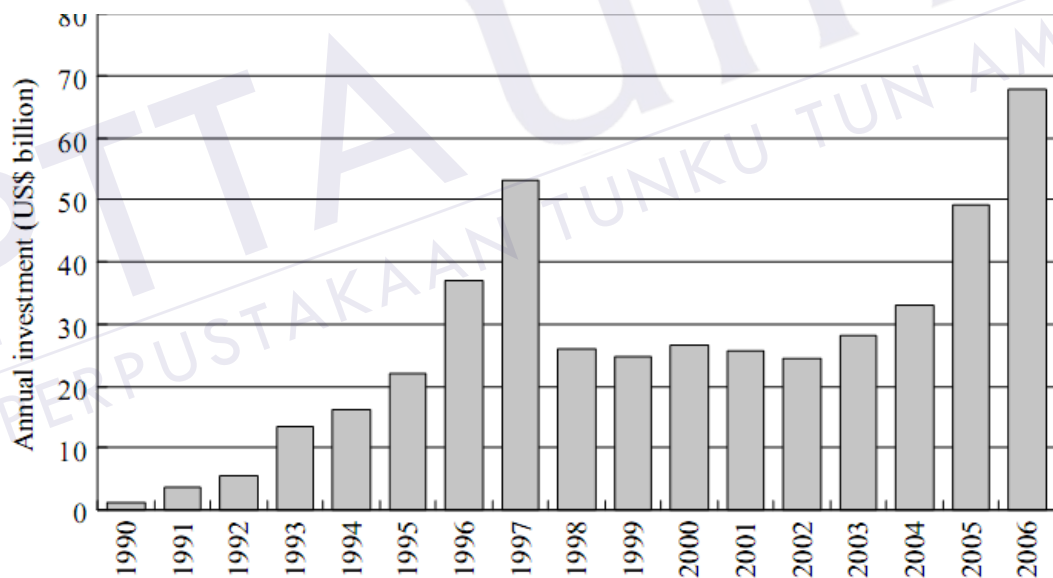


Figure 1.1: Annual investment of infrastructure projects with private participation in developing countries between 1990 and 2006 (World Bank, 2007).

As described in the figure above, there had been a steady rise in private sector investment in infrastructure from 1990 to 1997. Whereas from the year 1998 up to 2002, there was a fall in investments as a result of the 1997 Asian financial crises (FRBSF,

2015). Malaysia is considered a newly industrialized market economy with an annual growth rate of about 5-7%, this makes it the 3rd largest economy in South East Asia and the 28th in the world (World Bank, 2012). In 2010, Malaysia launched the New Economic Model (NEM) which aims for the nation to achieve a high income and fully developed status by the year 2020. Consequently, with this status that the nation seeks to achieve massive investment is required in order to have world class infrastructural facilities which befits that of a fully developed nation. However, it is apparent that the government on its own cannot provide such investment as there is increased shortage of funds that are required to finance the provision of such infrastructure (Ismail & Rashid, 2014). Moreover, the main idea behind the NEM is to propel economic growth that is primarily driven by the private sector, so as to ensure the utilization of the efficiency, expertise and technical know how that is associated with the private sector (World Bank, 2012; EPU, 2010). This then warrants a mechanism such as PPP to serve as the vehicle towards achieving the much needed private sector participation in the delivery of the necessary infrastructural facilities.

In Malaysia, PPP has enabled the implementation of large-scale infrastructure projects, such as highways, bridges and energy projects. This appears to be mainly due to the ability of the private sector to raise massive funds and also by enhancing the role of the public entity in terms of effectively managing regulatory and policy issues. On the whole, the concept of PPP has contributed greatly to the infrastructure development in Malaysia within the last 29 years (Ismail *et al.*, 2009). This is besides the fact that there have been a few problematic instances related to PPP mode of infrastructure delivery. Examples of which are the Indah Water Consortium that was set up to handle the national sewerage system and also the Selangor Mass Housing project which was initiated in order to achieve the zero squatter policy (Abdul-Aziz & Kassim, 2011; El-Gohary *et al.*, 2006).

In general, due to the known benefits that the PPP offers towards the provision of infrastructural facilities and services, the PPP procurement system in Malaysia is becoming increasingly popular in both the procurement of new infrastructural projects and also the management and operations of existing ones. PPP as a project delivery approach is characterized by having different forms, and these distinction in terms of the

PPP variations mainly refers to its representation as it relates to the major components that describes the PPP as means of achieving the client's objective of having a built infrastructure project. According to UNESCAP (2009), PPP forms can be mainly described in terms of ownership of the project's capital assets, responsibility for investment, assumption and apportionment of risks, and lastly the duration of the contract, i.e the concessioning period. Moreover, the PPP arrangement involves a host government/public sector granting a concession to a private consortium (concessionaire), which is in the form of an independent business entity known as a Special Purpose/Project Vehicle (SPV).

### **1.1.1 The role of the SPV organization in the delivery of PPP infrastructure project**

The creation of the SPV which is considered a separate commercial venture is a key feature for the implementation of the PPP for delivering infrastructure projects. The SPV is a new standalone firm that owns and manages the infrastructure assets until the investment costs are recuperated. The SPV is managed by a sponsor or an equity investor responsible for bidding, developing, and managing the PPP infrastructure project throughout the concessioning period (ADB, 2008). Hence, the SPV is fundamentally a legal entity that undertakes a project and negotiates contract agreements with other parties including the government.

In a more specific sense, a SPV is an independent commercial entity established under the relevant statutory act of a country where the PPP infrastructure project is to be domiciled. The SPV is set up through an agreement (which is also known as memorandum of association) between the shareholders or sponsors that are saddled with the responsibility of providing the needed funds and the eventual execution and managing the PPP infrastructure project throughout the concessioning period. The shareholders agreement sets out the basis on which the SPV company is established, giving such details as its name, ownership and organizational structure, management control and corporate matters, authorized share capital and the extent of the liabilities of its members. The authorized share capital is the maximum amount of equity capital,



measured at par value, by which the SPV company is allowed to raise by issuing shares to existing or potential shareholders (or investors). Furthermore, other details that are spelt out in the agreement are issues related to how the shareholders of the SPV can be granted special privileges on matters such as elections to the company's board, the right to purchase new shares issued by the company and the right to share in distribution of the company's income (UNESCAP, 2009).

According to UKAS (2009), the roles of the SPV in the delivery of PPP infrastructure projects include the following:

- a) Raising the funds to develop and maintain the assets;
- b) Making payments to the subcontractors, financiers and other creditors;
- c) Delivering the agreed services to the public sector according to the levels, quality and timeliness of the service provision throughout the contract period;
- d) Ensuring the assets are well maintained and available for use throughout the concession period;
- e) Ensuring that revertible assets/facilities are transferred in the specified condition (good working order) to the public sector at the end of the concession period.

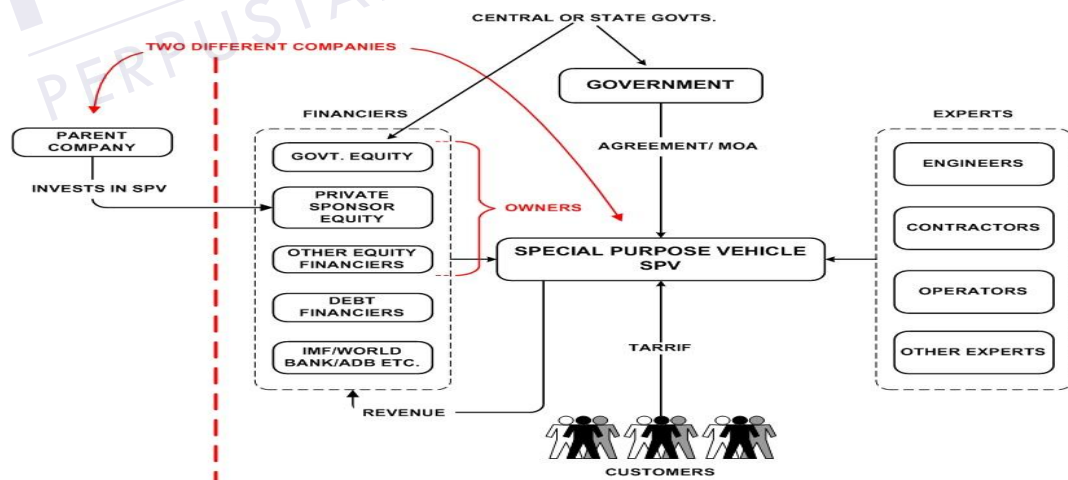


Figure 1.2: SPV structure in PPP

Source: Indian PPP guide (2007)



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