

Factors Attracting the Use of Public Private Partnership in Malaysia

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Abstract: The study aims to investigate the factors that attract the adoption of public private partnership (PPP) in Malaysia. It also intends to examine the differences in the perception of those factors by the government and private sector. A questionnaire survey was used to elicit the perceptions of the public and private sectors on the attractive factors of PPP adoption in Malaysia. One hundred and twenty two usable responses were analysed using Statistical Package for the Social Science (SPSS) to rank the importance of the factors based on the overall responses, as well as the responses from both the public and the private sectors and to examine the differences in the perceptions between the two sectors. The overall results show that "facilitate creative and innovative approaches", "solve the problem of public sector budget restraint", "provide an integrated solution", "benefit local economic development" and "accelerate project development" are the top five attractive factors for adopting PPP in Malaysia. In terms of the differences in the perception between the public and private sector groups, the statistical test results indicated that there are significant differences in the perception for a number of factors.

Keywords: Public private partnerships, Attractive factors, Malaysia

INTRODUCTION

Public private partnership (PPP) is a globally accepted public sector procurement mechanism whereby the government engages commitment from the private sector and transfers a certain level of responsibilities to the private sector in providing public facilities or services. The fundamental justifications for adopting PPP would significantly reduce the upfront costs for the government in providing and maintaining public facilities and that it allows for improvement in the public facilities and services because PPP encourages innovation by the private sector (Heald and Geaughan, 1997; Gaffney, Pollock and Shaoul, 1999; Glaister, 1999).

In Malaysia, PPP projects have grown at an accelerated pace since the 1980s because of a 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, Akintoye and Kelly, 2006; Ismail, 2012). In particular, the evolution of PPP in Malaysia started with the Malaysia Incorporated programme (Economic Planning Unit, 1981) and was followed by the privatisation programme (Economic Planning Unit, 1985). Under the Economic Planning Unit, the government's goal to encourage greater participation of the private sector in government projects was accomplished when the Private Finance Initiative programme was officially unveiled (Economic Planning Unit, 2006). More recently, in the Tenth Malaysia Plan, the 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 (Economic Planning Unit, 2010).

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In ensuring that the government's agenda for greater private sector participation via the PPP program is achieved, it is crucial to identify the factors that attract the private and public sectors to participate in PPP. Hence, this study aims to offer some evidence on this issue. Specifically, there are two objectives of the present study. First, it examines the key factors that attract the use of PPP as perceived by respondents, as well as the perceptions of the public sector and private sector groups. Second, the study intends to investigate the differences between the public and private sectors in terms of their perception on the importance of the factors. This paper is unique in the sense that it highlights not only the important attractive factors of adopting PPP in Malaysia but also offers evidence on the differences in the perceptions of the two key parties involved in PPP (i.e., the public sector and the private sector) in relation to the factors. It is vital to put forward the differences of opinion of the two parties because each party plays a different role in a PPP contract.

The remainder of this paper is structured as follows. The next section reviews relevant literature concerning the attractive factors in adopting PPP. This is followed by a methodology section, which describes the instrument used, sample and data collection and analysis procedures. The results are discussed in the subsequent section, followed by the implications, limitations, suggestions for future research and the conclusion in the final section.

LITERATURE REVIEW

Prior studies have highlighted various factors that have attracted various parties to engage in PPP projects. According to Hall (1998), the rationales for a country to prefer the use PPP to execute public projects are that the private sector is inherently more efficient and more innovative than the public sector, the private sector has the advantage of competitive pressures in the delivery of public services and the private sector might be able to manage some types of risk more effectively than the public sector, which ultimately lead to a better quality of services provided, cost savings and the reduction of risks taken on by the government.

Hodges and Mellett (2004) also highlighted the advantages of PPP, which were similar to those mentioned by Hall (1998) and in addition, they stated that PPP can strengthen project monitoring and ensure greater accountability. Furthermore, Leiringer (2006) claimed that governments across the world are favouring PPP because of reasons such as lower project costs, shorter construction times, competitive advantages, higher overall qualities in the end product and the benefits accrued from letting the private sector be innovative in its solutions. Mumford (1998) identified the following six sources of savings of PPP over conventional procurement options: clearer definition and specification of user needs, more careful lifetime design and costing by the private constructor, speedier construction and commissioning, more effective monitoring of contracts, incentives that better align effort with risk and rewards, and decision making that better exploits asset compatibility.

Hurst and Reeves (2004) mentioned that the major attractions of PPP for the government are the potential of accruing efficiency and value for monetary gains from the projects. Because PPP promotes private sector innovation, an

improvement of the dynamic efficiency as well as of the quality of services can be achieved. Jamali (2004) viewed PPP as an innovative policy tool to mitigate the lack of dynamism in traditional public services.

Vining, Boardman and Poschmann (2005), as cited in Vining and Boardman (2008), reported three major rationales about why governments engage in PPP. First, PPP seems to minimise the government's budget on expenditures. Second, both the provision of the infrastructure and the services by the private sector are at a lower cost because of the economies of scale, more experience, better incentives and a greater ability to innovate. The third rationale is it reduces the government's risk, particularly during the design and construction phase as well as the operating phase. Reeves and Ryan (2007) suggested a number of benefits from PPP implementation, including faster delivery of public infrastructure, a reduction in public spending and a better value for money compared to traditional methods of procurement.

There have also been a number of studies that empirically evaluated the financial and non-financial performance of PPP projects and that could support the attractiveness of PPP. In terms of the financial performance, the National Audit Office (1999a) examined seven PPP projects in the UK and reported that the average cost savings were 20%. In another study by Arthur Anderson and LSE Enterprise (2000), there was evidence that PPP projects resulted in estimated cost savings of 17%. A study by the Institute for Public Policy Research (IPPR) (2002) discovered that the expected benefits of PPP schemes vary from sector to sector. In particular, it was reported that PPP in road, defence and prison projects saved up to 31% compared to traditional procurement. However, for school and hospital PPP projects, the savings was not more than 10% (IPPR, 2002). More recently, Ismail (2011) carried out an analysis of 24 audit reports that cover 40 PPP projects in the United Kingdom that have been audited by various official audit bodies including the National Audit Department, Audit Commission and Audit Scotland. Based on the financial information of the projects, it was discovered that the total estimated cost savings of the projects was approximately 18.3%. The evidence, therefore, lends supports to the early reviews by the National Audit Office (1999b), Arthur Anderson and LSE Enterprise (2000) and IPPR (2002).

To study the non-financial aspects of PPP performance, an investigation by Audit Scotland (2002) on PPP schools was carried out and revealed a positive outcome, showing that the construction work was delivered on time. Conversely, the Audit Commission (2003) claimed that their study found no evidence that the PPP schools were delivered more quickly than those in the public sector. In another study by the National Audit Office (2003a) on the operational performance of PPP prisons, it was reported that PPP prisons had introduced innovation that led to improvement and efficiency in prison management and development. Moreover, PPP prisons tend to perform better than public sector prisons in areas related to the activities of prisoners (National Audit Office, 2003a). The National Audit Office (2003b) also investigated the benefits of PPP schemes in terms of the delivery time, price certainty and quality of the projects based on the 37 PPP projects from various sectors. It was reported that PPP projects were delivered on time or earlier, within the public sector budget and with good quality (National Audit Office, 2003b).

In addition to studies that have examined the outcomes of successful PPP projects, studies have also sought the opinions of the various parties on the

attractive factors of PPP, although the number remains very limited. In particular, a study by Li et al. (2005), who carried out a postal questionnaire survey to investigate the attractive factors for adopting PPP in the UK, revealed that the top three attractive factors include "transfer of risk to private sector", "solving the problem of public sector budget constraints" and "non-recourse or limited recourse public funding". In addition, Li et al. (2005) also examined the differences between the public and private sectors respondents' perceptions on the importance of the factors and reported that there are no significant differences in the perceptions except for a few factors that are not among the top three attractive factors. Cheung (2009) adopted the questionnaire survey by Li et al. (2005) to investigate the attractive factors of adopting PPP in Hong Kong and Australia. The study reported that the top three attractive factors for PPP in Hong Kong include "provide an integrated solution (for public infrastructure/services)", "facilitate creative and innovative approaches" and "solve the problem of public sector budget restraint". As perceived by the respondents in Australia, the top three PPP attractiveness factors are "provide an integrated solution (for public infrastructure/services)", "facilitate creative and innovative approaches" and "save time in delivering the project".

In light of the above literature, the factors attracting both parties' (i.e., the government and private sectors) involvement in PPP can be summarised as follows: solve the problem of public sector restraint, provide integrated solutions, reduce public money tied up in capital investment, facilitate creative and innovative approaches, reduce the total project cost, save time in delivering the project, transfer risks to the private sector, reduce public sector administrative costs, benefit local economic development, improve buildability, improve maintainability, non-recourse or limited recourse to public funding and accelerate project development. More importantly, based on earlier studies, particularly by Li et al. (2005) and Cheung (2009), the results show that the attractive factors perceived by the respondents in the UK are different from the factors perceived by the respondents in Hong Kong and Australia. This finding implies that the unique characteristics of PPP in each country influence the PPP attractiveness in the country. Consequently and because there is no similar evidence in the Malaysian context, this study investigates the attractive factors for PPP implementation in Malaysia.

METHODOLOGY

Research Instrument

The study adopted the questionnaire survey developed by Li et al. (2005), who proposed various attractive factors based on a comprehensive review of prior literature. The rationale for adopting similar attractive factors to those used in prior studies, particularly by Li et al. (2005) and Cheung (2009), is that the factors identified are recognised by the industry and academia and a number of papers that used the questionnaire have been published in reputable refereed journals (Cheung, Chan and Kajewski, 2009; Ismail, 2012). As claimed by Cheung, Chan and Kajewski (2009), there is no strong justification to reinvent work that has previously been discovered by other researchers. Moreover, using the same

instrument by researchers from different countries will allow future studies to make a comparison between the attractive factors for PPP adoption in various countries (Cheung, 2009).

The questionnaire comprises 13 attractive factors for adopting PPP instead of traditional procurement, as shown in Table 1. The respondents were asked to rate the importance of each factor based on a five-point Likert scale from (1) most important to (5) not important.

Table 1. List of Attractive Factors of Adopting PPP

No.	Attractive Factors
1	Solve the problem of public sector budget restraint
2	Provide an integrated solution (for public infrastructure/service)
3	Reduce public money tied up in capital investment
4	Facilitate creative and innovative approaches
5	Reduce the total project cost
6	Save time in delivering the project
7	Transfer risk to the private sector
8	Reduce public sector administration costs
9	Benefit local economic development
10	Improve buildability
11	Improve maintainability
12	Non-recourse or limited recourse to public funding
13	Accelerate project development

Sample and Collection Procedures

A total of 250 questionnaires were distributed to the participants of the national seminar on Malaysian PPP Framework organised by the Public Private Partnership Unit, which was held in early 2011. The respondents were politely approached by the researcher to request their participation in the survey. Each potential respondent received a cover letter and a copy of the questionnaire. The cover letter explained the purpose of the study and assured the confidentiality of the answers given by the respondents. It took respondents, on average, 10 minutes to complete the questionnaire. The completed questionnaires were collected at the end of the seminar. A total of 185 respondents completed the questionnaire; six questionnaires were excluded as they were incomplete. To ensure the credibility of the findings, an additional 52 responses from respondents who claimed to have no experience in PPP projects were omitted from the analysis. As a result, 122 completed questionnaires were useable for this study, representing a usable response rate of 48.8%.

Data Analysis

The data were analysed using the Statistical Package for the Social Sciences (SPSS) software. The descriptive statistic of the mean score was computed for the five-point Likert scale based on the importance of each of the 13 attractive factors. Then, based on the mean scores, the factors were ranked according to the importance as perceived by the overall respondents as well as by the public and private sectors independently. An independent sample *t*-test was carried out to statistically examine the differences in the perceptions of the two groups of respondents.

Response Rate and Demographic Information of Respondents

The total number of respondents was 122, with 52 (42.6%) engaged in the public sector and 70 (57.4%) engaged in the private sector. Table 2 illustrates that the respondents originated from different levels of the government (i.e., federal, state and local government) and private sector companies with various backgrounds (i.e., financier, facilities management and construction companies). The majority of the respondents were either attached to the public sector at the federal level (44 respondents) or serving the construction companies (36 respondents).

Table 2. Distribution of Respondents

Roles of Respondents	Frequency	Percentage (%)	Total		
			Sector	Frequency	Percentage
Federal government	44	36.1			
State government	4	3.3	Public sector	52	42.6
Local government	4	3.3			
Financier	9	7.4			
Facilities management	25	20.5	Private sector	70	57.4
Construction company	36	29.5			
Total	122	100		122	100

The questionnaire respondents comprised experienced practitioners from the industry. As shown in Table 3, 73.8% of the respondents possessed more than five years of working experience and over 20% of respondents had over 21 years of industrial experience. In addition, of all respondents who had experience in PPP implementation, 31.1% had previously been involved with more than five PPP projects. Overall, the background of the respondents reflects their credibility in providing reliable information for the purpose of the present study.

Table 3. Characteristics of Respondents

Survey Respondents' Characteristics	Frequency	Percentage
Years of experience		
Less than 5 years	32	26.2
6–10 years	28	23.0
11–15 years	19	15.6
16–20 years	18	14.8
21 years above	25	20.5
Number of PPP projects		
1	36	29.5
2	31	25.4
3	12	9.8
4	5	4.1
5 and above	38	31.1

FINDINGS AND DISCUSSION

The findings are presented in the following manner: (1) the overall results on the attractive factors, (2) the differences between the public and private sectors on the attractive factors, (3) the overall results on the hindrance factors and (4) the differences between the public and private sectors on the hindrance factors.

Results of the Attractive Factors

Table 4 illustrates the mean scores and the rank of the relative importance of each of the 13 attractive factors based on the overall respondents and the sector (i.e., public and private sectors).

The respondents rated each factor based on a five point Likert scale where 1 means most important and 5 means not important. The results in Table 4 show that all the 13 factors were perceived by each group of respondents to be either "most important" or "important" because the mean scores for the factors range from 1.44 to 2.54.

Overall respondents' perceptions on the importance of the attractive factors

Based on the mean score results of all respondents, four factors were perceived as "most important" and have mean scores below 1.50. The attractive factors, in descending order of importance, are: (1) solve the problem of public sector budget restraint, (2) provide an integrated solution (for public infrastructure/service), (3) facilitate creative and innovative approaches, and (4) accelerate project development.

Table 4. Perception of Survey Respondents Concerning the Relative Importance of Attractive Factors in Adopting PPP Projects

Attractive Factors	Public sector		Private Sector		Overall	
	Mean	Rank	Mean	Rank	Mean	Rank
Solve the problem of public sector budget restraint	1.42	2	1.46	1	1.44	1
Provide an integrated solution (for public infrastructure/service)	1.33	1	1.56	4	1.46	2
Facilitate creative and innovative approaches	1.43	3	1.51	3	1.47	3
Accelerate project development	1.48	4	1.49	2	1.49	4
Save time in delivering the project	1.56	5	1.79	6	1.69	5
Reduce public money tied up in capital investment	1.71	8	1.77	5	1.75	6
Reduce public sector administration costs	1.60	6	1.94	7	1.80	7
Benefit local economic development	1.69	7	2.10	8	1.93	8
Improve maintainability	1.77	9	2.10	9	1.96	9
Improve buildability	1.92	10	2.17	10	2.07	10
Transfer risk to the private sector	2.28	12	2.37	11	2.32	11
Non-recourse or limited recourse to public funding	2.27	11	2.41	12	2.35	12
Reduce the total project cost	2.42	13	2.54	13	2.49	13

"Solve the problem of public sector budget restraint" is the most important attractive factor as perceived by the overall respondents. PPP is widely adopted by the government of many countries because it is claimed that having the private sector take on a significant responsibility to construct, finance, operate and maintain public infrastructure could reduce government allocation for development projects (Peat, 1995; Robinson, 2000). This is evident in studies by Li et al. (2005) and Cheung (2009), who discovered this factor as among the top factors attracting PPP adoption in the UK and Hong Kong, respectively. In the context of Malaysia, the global economic recession in the 1980s had caused the government to reduce its role in the economy by making the involvement of the private sector a vital mechanism of Malaysian's government economic policy (Siddiquee, 2006). As a result of private sector involvement, the government has enjoyed massive savings in its capital expenditure (Economic Planning Unit, 2001).

The second most attractive factor in adopting PPP in Malaysia as perceived by the respondents is "provide an integrated solution for public infrastructure/service". PPP becomes an integrated solution mechanism because it involves a private consortium that is set up to run a PPP project and is comprised of several private companies of different expert areas who are jointly responsible for designing, building, financing, operating and maintaining the projects over the contract period (Cheung, 2009). The involvement of multiple experts in a PPP project is expected to be able to produce better and more efficient public

facilities and services (Ongolo, 2006). For example, the introduction of Light Rapid Transport (LRT) systems and commuter services in rail services in Malaysia via PPP allows users to avoid heavy road congestion, significantly reducing users' travelling time. Similarly, the construction of PPP toll highways has not only minimised the travelling time and vehicle operating costs of users but has also contributed to the comfort and safety for road users (Economic Planning Unit, 2001; 2006). This attractive factor was perceived to be equally important for PPP implementation in Hong Kong, Australia and the United Kingdom (Li et al., 2005; Cheung, 2009).

Another important attractive factor as rated by the respondents and in third place is "facilitate creative and innovative approaches". There has been evidence that by using PPP, the public at large can enjoy better quality services because PPP encourages the private sectors to be innovative and creative in delivering the projects (Grimsey and Graham, 1997; Treasury Taskforce, 1997). In the context of Malaysian PPP, this is evident in the PPP *e-perolehan* project (i.e., online public procurement systems), which was reported to have improved service delivery because the private sector is perceived as being more innovative and efficient because it operates in a competitive commercial environment where there are incentives and rewards for meeting the needs of the customers (Kaliannan, Awang and Raman, 2010).

The factor ranked fourth by respondents is "accelerate project development". In particular, the government was attracted to PPP because it has been proven from the experience of other countries that by using PPP, public projects were delivered on time, if not ahead of schedule and at a lower cost (Abdul Aziz, 2010; Abdul Aziz and Kassim, 2011). For example, it was reported that a number of PPP road projects in Malaysia were made available earlier than if the projects had been undertaken using the traditional government procurement method (Economic Planning Unit, 2001; 2006). Although respondents in the UK perceived the factor important to some extent, based on the mean score ranking, the factor was ranked lower by the UK's respondents (Cheung, Chan and Kajewski, 2009).

Differences in the perceptions of the public and private sectors' respondents on the importance of attractive factors

In terms of the differences on the perceived importance of each factor by the public and private sectors, based on the mean score rankings, the results of the two parties are almost similar except for differences in the ranking for several factors. Table 4 shows that all factors were perceived to be more important by the public sector respondents than by the private sector respondents because the mean score values of the public sector respondents are lower than their private sector counterparts. PPP is a government agenda to improve the quality of infrastructure and public services in order to stimulate economic growth. Therefore, PPP is closer to civil servants than those in the private sector, whose ultimate business goal is to maximise profit (Jayaseelan and Tan, 2006; Rusmani, 2010).

In further investigating the differences in the perceptions of the public and private sectors regarding the importance of each of the thirteen attractive factors, an independent *t*-test was conducted; the results are tabulated in Table 5 below.

Table 5. Summary of the Independent *t*-Test Results for Attractive Factors

Attractive Factors	F	T	Significance
Solve the problem of public sector budget restraint	0.033	-0.349	0.728
Provide an integrated solution (for public infrastructure/service)	8.270	-2.159	0.026*
Reduce public money tied up in capital investment	0.840	-0.451	0.646
Facilitate creative and innovative approaches	5.701	-0.625	0.513
Reduce the total project cost	1.350	-0.553	0.590
Save time in delivering the project	0.346	-1.846	0.064
Transfer risk to the private sector	0.074	-0.421	0.675
Reduce public sector administration costs	0.647	-2.765	0.006**
Benefit local economic development	0.047	-2.333	0.020*
Improve buildability	1.640	-1.504	0.135
Improve maintainability	0.779	-2.025	0.045*
Non-recourse or limited recourse to public funding	0.059	-0.889	0.376
Accelerate project development	1.274	-0.045	0.964

**Significant at 1%, *Significant at 5%

Based on the results shown in Table 5, the findings indicate that there is no significant difference in the perceptions of the public and private sectors except in the cases of four factors: "reduce public sector administration costs", "provide an integrated solution for public infrastructure/service", "benefit local economic development" and "improve maintainability", which show a statistically significant difference at the 5% significance level. The result is in line with Li et al. (2005), who also discovered significant differences between the perceptions of private and public sector respondents in the UK for only several attractive factors, although Li et al. (2005) reported that the private sector respondents in the UK perceived the factors as being more important than the public sector respondents.

The public sector respondents perceived the attractive factor "reduce public sector administration costs" as significantly more important than the private sector respondents because it is the initial reason for the public sector to engage private sector companies in delivering public facilities and services in order for the government to reduce its administrative costs, particularly during a period of economic downturn (Siddiquee, 2006). In fact, the government's aims to minimise its administrative burdens via PPP have been evident by the significant number of public sector workforces that have been transferred to private sector entities, hence reducing the administrative burden of the government in terms of recruitment, promotion and training personnel (Economic Planning Unit, 2001).

Similarly, for the other three factors, which are "provide an integrated solution for public infrastructure/service", "benefit local economic development" and "improve maintainability", the public sector respondents perceived them as being significantly more important than the private sector respondents. The possible justification for the significant difference in the perception between the

two parties lies in the common belief that the private sector is more efficient and innovative than the public sector. Therefore, under PPP, the public sector expects the private sector to provide solutions with better quality infrastructure and services that will contribute to the economic development of the country and ultimately benefit the public at large.

IMPLICATIONS, LIMITATIONS AND CONCLUSION

The study used a questionnaire survey to examine the attractive factors for the use of PPP to deliver public facilities and services in Malaysia. Moreover, this paper evaluated the differences in the perception of the two main players in PPP, the public sector and the private sector, in terms of each factor. The overall results show that "solve the problem of public sector budget restraint", "provide an integrated solution (for public infrastructure/service)", "facilitate creative and innovative approaches" and "accelerate project development" are the four most important attractive factors for adopting PPP in Malaysia. In terms of the differences in perception between the public and private sector groups, the statistical test results indicated that there are significant differences for only a few attractive factors.

The results of the top attractive factors for PPP adoption in Malaysia are significant to the various PPP stakeholders, particularly the government, who introduce the policy and the private sector companies, who take significant responsibilities in carrying out projects via PPP. In particular, the result shows that PPP is claimed to be attractive because it encourages innovation in delivering projects among the private sectors. Therefore, in ensuring that PPP continues to be an attractive and successful procurement mechanism, the government should continue to support innovation by the private sector by giving more authority to the private sector companies in deciding the design, financing option and operation of the facilities.

PPP is also perceived as an attractive initiative because it requires private sector companies to form a special purpose vehicle that comprises of few companies with different expertise to jointly undertake a long term government project. To emphasise the need to form an SPV that comprises various private companies, in evaluating the tender for PPP, the government may consider assessing the credibility of each company that forms the SPV rather than only assess the construction company that will lead the PPP project. This leads to a greater possibility of a PPP project to succeed because all of the private companies that form the SPV are in a position to play appropriate roles throughout the PPP contract. Moreover, PPP is also considered attractive because it is believed to accelerate project development. To ensure fast project delivery via PPP, the relevant government authority, particularly the Unit Kerjasama Awam Swasta (UKAS), may want to ensure that there is no long delay in any process before the PPP project is awarded to an SPV or a private company. In addition, from time to time, UKAS may need to obtain feedback from various parties, particularly the private sector companies, on the present process of procuring a PPP project to improvise it for faster project development.

The differences in perception between the private and public sector respondents for several PPP attractive factors, which the public sector respondents

perceived as being more important than the private sector respondents, imply that the private sector companies in Malaysia are yet to believe in the attractiveness of PPP procurement, which may ultimately lead to a lesser commitment in implementing PPP. In ensuring that the objectives of PPP are achieved, it is vital that both parties have an equal priority towards PPP implementation. To overcome the issue, the Malaysian government may want to consider offering greater incentives to private sector companies, such as a lower tax or tax exemption for profit from PPP projects.

There are several limitations to this study. First, although the use of the questionnaire survey allows for a greater sample size, having other methods such as interviews with PPP experts and the use of a case study approach may enrich the findings and lead to the triangulation of evidence on the factors attracting PPP implementation in Malaysia. Second, this study only assessed the attractive factors for adopting PPP. Although this is important, it is also crucial to both the government and private sectors to have information on the factors that hinder the adoption of PPP. Hence, future studies may want to extend this study by also looking at this neglected issue. Despite its limitations, this study offers some insights and useful information for the government and private sector providers concerning the important factors attracting the implementation of PPP in Malaysia.

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