

A Research Framework for Investigating Public Private Partnerships (PPP) in Hong Kong

Albert P.C. Chan, Patrick T.I. Lam, Daniel W.M. Chan, Esther Cheung
Department of Building and Real Estate, The Hong Kong Polytechnic University,
Hung Hom, Kowloon, Hong Kong

Tony Sidwell, Stephen Kajewski
School of Urban Development, Queensland University of Technology, Brisbane, Australia

Abstract

PPP is a general term covering all contracted relationships between the public and private sectors to produce a public asset or to deliver a public service. Its major advantage lies in utilising resources from the private sector to alleviate some of the financial burdens of the government.

The Asian financial turmoil in the late 1990s has imposed enormous pressure on the budget of the Hong Kong Special Administrative Region (HKSAR) Government. With a continuous outcry for better public services due to the rapid development of Hong Kong, alternative financing models need to be sought to ensure sustainability. Hong Kong has the advantage of being the international gateway to Mainland China, and with this benefit has attracted overseas enterprises to base their offices in Hong Kong for the Asian market. Obviously the private sector has much to contribute.

The HKSAR Government has realised the benefits of using PPP in Hong Kong as well as the success achieved overseas. But a more thorough research is needed to develop the most suitable practice of PPP in terms of project nature, project complexity, project type and project scale under which PPP is most appropriate for Hong Kong.

This paper provides an initial report of a research project being funded by the Research Grants Council (RGC) of the HKSAR. The project aims to evaluate the benefits and risks of PPP adopted in Australia and the United Kingdom, and from these previous experiences to develop a best practice framework for implementing PPP in Hong Kong. It firstly reports on the status of PPP development trend and the hands-on experiences which have been drawn in these countries. Qualitative and quantitative research methods applied in conducting the research are discussed. The likely impacts of the study are highlighted. It is believed that the construction industry and the government would benefit a lot as a result of this study, and further procurement and project financing options would be opened up for delivering better future public service.

Keywords

Public Private Partnerships, research framework, Hong Kong.

1. INTRODUCTION

Public Private Partnerships (PPP) are defined by the Efficiency Unit of the Hong Kong Special Administrative Region Government (HKSAR) as (Efficiency_Unit, 2006):

'Arrangements where the public and private sectors both bring their complementary skills to a project, with varying levels of involvement and responsibility, for the purpose of providing public services or projects.'

In recent years the Efficiency Unit of the HKSAR Government has been heavily involved in PPP research. The Government's interest in utilizing PPP is obvious. The approaches that they have taken mainly involve gaining international experience from particularly Europe and Australia. The approach of PPP is well developed in Europe and Australia hence the lessons learnt from these regions are useful. But due to differences in geographic location, cultural background, local practices and experiences the suitability of using PPP in Hong Kong has yet to be studied.

One of the early documents produced by the Efficiency Unit of the HKSAR Government on private sector involvement was a guideline to help governmental bureaux and departments to familiarize with private sector engagement (Efficiency_Unit, 2001). These guidelines were published in 2001 and showed the government's interest in adopting the idea of PPP. Only two years later they also produced a comprehensive introductory guide to PPP (Efficiency_Unit, 2003). This guide was aimed for the use of the civil service but is also made available for the public's interest to understand the government's approach. After the publication of this report much interest was drawn from the public due to the possibility of the increased business opportunities available. Earlier this year, the Efficiency Unit published the second edition of this guide (Efficiency_Unit, 2007). The new guide shows how more knowledge on the issues of PPP have been learnt, it also identifies areas of concern to local practitioners as well as civil servants, and it tries to provide some insights into these areas.

2. HONG KONG EXPERIENCES

Hong Kong is not completely new to the idea of PPP. In actual fact the city was probably one of the first to utilize resources from the private sector. The term PPP is rather new to Hong Kong, whereas a more familiar term is Build Operate and Transfer (BOT). The concept of BOT has been used since the late sixties.

Although Hong Kong has had experience in adopting quite a number of BOT projects, the approach of PPP has never really been studied extensively on a local scale. The traditional practice of these projects was to directly form a contract agreement with the potential bidder. By doing so essential items for success were neglected and risks were not avoided. Gunnigan and Eaton (2006) identified that a good partnership environment consisted of three levels. The first level is the 'Spirit' level where both parties involved are willing to identify and examine the common objectives for the project. The second level is the 'Co-operation' level where the parties work out how they achieve the objectives together. Finally the third level 'Formal Partnership Agreement' is where both parties are bound by a legal requirement. The BOT projects conducted in Hong Kong have often jumped straight into the third level neglecting important foundation work. This practice of securing contracts quickly is common in Hong Kong, but the risks which may be associated are unpredictable. Therefore it is important to adopt the experiences of others and to develop a suitable model to fit Hong Kong bearing in mind the differences in location, culture, experiences and practices.

3. LESSONS FROM INTERNATIONAL EXPERIENCE

The United Kingdom and Australia are two countries that PPP has been successfully adopted. Therefore their experiences in adopting PPP would be particularly beneficial

to Hong Kong. Obviously the framework they use cannot be transferred directly into Hong Kong. To develop a best practice framework for Hong Kong the knowledge gained must be modified to fit the obvious differences.

Private Finance Initiative (PFI) is one of the many types of PPPs available just like the use of BOT in Hong Kong. PFI was first introduced into the United Kingdom in 1992 as a way of procuring public infrastructure by getting the private sector to finance, build and operate it under contracts typically lasting 25 to 30 years (Tieman, 2003). A rapid increase in projects opting for PPP has been observed in the last two decades. In 1994 there were 2 PFI contracts, 11 in 1995, 39 in 1996 and a tremendous 500 in 2002 (Spackman, 2002). Since its introduction, PFI has been the British government's preferred method of public infrastructure procurement (Handley-Schachler and Gao, 2003).

PFI now accounts for between 10 and 14 per cent of Britain's total annual investment in public services. In 2003, total investment under PFI was forecast to reach £4.6 billion (Tieman, 2003). After almost 50 studies, the National Audit Office (NAO) had concluded that when PFI worked it delivered both better value and better infrastructure (National_Audit_Office, 2003). Grimsey and Lewis (2005) found that since adopting PPPs in the United Kingdom, approximately 75% of the major infrastructure projects were completed on time and to budget. However, it has been suggested that PFI should be abolished for smaller projects and for I.T. schemes (Maltby, 2003).

The Victoria government released the Partnerships Victoria policy in June 2000 providing a framework for developing contractual partnerships between the public and the private sector for public infrastructure and services (Department_of_Treasury_and_Finance, 2000). This brought about the change to the traditional practice of using BOO and BOOT. The traditional practice focused more on bringing in the private sector's financial input and also having the risk transferred from the public sector to the private sector. But since the Partnerships Victoria policy the focus moved more towards delivering better projects as a result of bringing in the private sector expertise and also the government would regain direct control over the service or facility. More recently the Victorian Department of Treasury and Finance published a more up to date guideline representing the State's position in partnerships (Department_of_Treasury_and_Finance, 2005). This guideline looks at the risk allocation in PPP projects. A distinct feature of PPP in Australia is that they do not involve privatization or outsourcing. Most PPP projects in Australia have occurred in New South Wales and Victoria.

4. RESEARCH FRAMEWORK FOR THE CURRENT STUDY

4.1 Aims and objectives of the current study

The project aims to evaluate the benefits and risks of PPP adopted in Australia and the United Kingdom, and from these previous experiences develop a best practice framework for implementing PPP in Hong Kong. The project objectives identified include:

1. Develop a series of Key Performance Indicators (KPIs) to evaluate the success of a PPP/PFI project.

2. Investigate the best conditions under which the use of PPP is most appropriate.
3. Identify a list of Critical Success Factors (CSFs) contributing to the success of these projects.
4. Develop and validate a best practice framework for PPP/PFI implementation in Hong Kong

4.2 Overall research approach

The research will combine the use of questionnaire surveys, interviews, focus group meetings and case studies to collect information and data on PPPs locally and internationally. The collected data will contribute to the development of the best practice framework and the conclusions and recommendations for the final report. The research framework is shown in Figure 1.

Literature on the current practice of PPP internationally will be extensively reviewed, including books, journals, magazines, newsletters, proceedings from conferences, workshops, seminars and other sources. Past and current practices of PPP will be documented. The review exercise will also include the development of an instrument to conduct the interviews and questionnaires. The information collected from these interviews and questionnaire survey will be fully documented individually but analyzed collectively to firstly verify the literature study conducted and secondly achieve the proposed research objectives. In addition as a result of the literature review appropriate case studies will be identified for analysis.

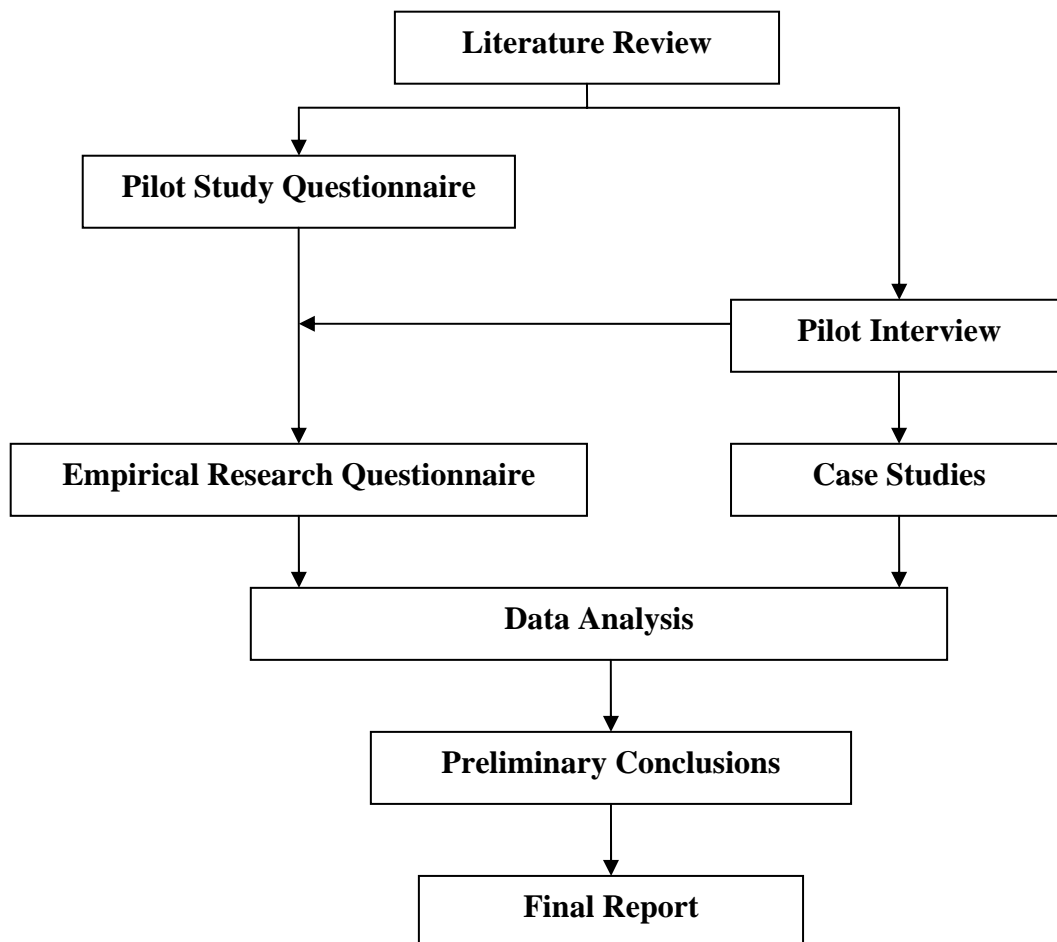


Figure 1 A flowchart of the overall research framework

4.3 Quantitative data analysis

4.3.1 Pilot questionnaire

The pilot questionnaire would be drafted to rank the key performance indicators derived from literature and from the interviews conducted. The factors leading to the success, difficulties and critical success factors of PPP will also be identified and compared to survey data of previous researchers. Finally the pilot questionnaire will enable the fine-tuning of the research questionnaire.

4.3.2 Research questionnaire

The research questionnaire is an effective method to seek a large sample size for quantitative data analysis. It will be refined by the comments gained from the pilot questionnaire survey and will only target representative participants with in-depth experience of PPPs in Hong Kong.

The survey will be designed to derive a series of key performance indicators which will be used to evaluate the merits and shortcomings of the PPP delivery approach. The most appropriate circumstances and projects to adopt PPP will be identified. Critical success factors identified during literature and the interviews will be validated in this survey for their importance.

It is likely that the responses of the respondents may be highly affected by their role taken up within a PPP project or if they are a third party their job nature. For example, the groups may be split into Financiers, Investors, Academics, Designers, Contractors, Politicians, Governmental Departments, Operator or Maintainer, Professional Institutions, Project Company etc. But if no significant differences are observed after the survey results are collected, the groups can be combined for analysis. The quantitative data collected will be analyzed using the Statistical Package for Social Sciences (SPSS). SPSS FACTOR program a statistical technique used to identify a relatively small number of factors that can be used to represent relationships among sets of many interrelated variables will be used. The purpose of the test is to compute the degree of item loading on their corresponding factors.

4.4 Qualitative data analysis

4.4.1 Interviews

The target respondents of the interviews will be practitioners of senior level and authority. The interview questions will be drafted based on the comprehensive literature review. The topics covered in the interview will include the key performance indicators, the merits and shortcomings compared to other procurement approaches, the most appropriate conditions to adopt this method and also the critical success factors for these projects. The interviews will be studied individually and collectively. The comments of the interviewees will be incorporated in to the research questionnaire for further verification.

4.4.2 Case studies

To gain an in depth understanding of how previous PPP projects succeeded and failed. This study will identify a selection of local and international case studies and analyze them for common failures, success features and problems. The cases selected will

include a range of various project types but of more recent examples. It is hoped that solutions could be sought as a result of identifying these similarities, and hence help to identify the best way to avoid risks and to maximize the benefits of PPP especially for Hong Kong. The findings from the case studies will enable us to verify and triangulate the findings from the other sources of data collection used in this study. The case studies will be analyzed collectively to validate findings. The approach adopted for the case studies will be mapped and the decision making process in the selection of particular approaches and processes will be documented.

4.5 Validation of results

Research data and analyses will be triangulated from the multiple sources to help improve the credibility of the findings. Results derived from both the quantitative and qualitative analyses will be cross-referenced to complement each other. The findings will be presented and discussed with experienced practitioners to generate relevant information and to supplement and/or confirm outcomes of these analyses.

5 SIGNIFICANCE OF THE STUDY TO THE CONSTRUCTION INDUSTRY

Governments may face financial difficulties to provide the demand for public services continuously. As a result solutions to solve this problem are needed. The involvement of the resourceful private sector to tackle this problem can be seen. Although the success of PPP has been experienced overseas, especially in Australia and the United Kingdom, it is important to analyse the suitability and effectiveness in Hong Kong. As not always PPP projects are successful the risks need to be avoided and the advantages maximised. Despite the interest in PPP, there is need for more systematic and in-depth research to examine the nature efficacy and feasibility of the PPP approach in Hong Kong. In addition this project also forms a comparative study for the use of PPP in Australia, The United Kingdom and Hong Kong.

6 CONCLUSIONS

This paper presents a research framework for developing a best practice framework for using PPP in Hong Kong. The recent increased interest amongst practitioners and local governmental departments in adopting the PPP arrangement has initiated the need for this study. This research topic will address the demand by presenting a best practice framework for PPP. In order to achieve this, a series of key performance indicators will be developed to evaluate the success of a PPP project. A database of construction projects where PPP is applied in the UK, Australia, and Hong Kong will be created and analyzed comparatively. The merits and shortcomings of applying PPP compared with other procurement approaches will as a result be evaluated. The best conditions in terms of project nature, project complexity, project types, and project scales, under which the use of PPP is most appropriate will be investigated. And finally a list of critical success factors contributing to the success of these projects will be identified.

7 ACKNOWLEDGEMENTS

The content of this paper is based on the initial findings of an ongoing research which aims to develop a best practice framework for implementing PPP in Hong Kong. The work described in this paper was fully supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China (RGC Project No. PolyU 5114/05E).

8 REFERENCES

- Asia_World-Expo. (2006). www.asiaworld-expo.com
- Berg, S. V., Pollitt, M. G. and Tsuji, M. (2002). *Private Initiatives in Infrastructure* (First ed.). Cheltenham, U.K. Northampton, U.S.A.: Edward Elgar.
- Department_of_Treasury_and_Finance. (2000). *Partnerships Victoria*. Victoria: Victorian Department of Treasury and Finance.
- Department_of_Treasury_and_Finance. (2005). *Partnerships Victoria - Standard Commercial Principles*. Victoria: Victorian Department of Treasury and Finance.
- Efficiency_Unit. (2001). *Serving the Community by Using the Private Sector*. Hong Kong: HKSAR Government.
- Efficiency_Unit. (2003). *Serving the Community By Using the Private Sector - An Introductory Guide to Public Private Partnerships (PPPs)*. Hong Kong: HKSAR Government.
- Efficiency_Unit. (2006).
http://www.eu.gov.hk/english/psi/psi_ppp/psi_ppp_over/psi_ppp_over.html
- Efficiency Unit. (2007). *Serving the Community by Using the Private Sector - Policy and Practice*. Second Edition. Hong Kong: HKSAR Government.
- Ghobadian, A., Gallear, D., O'Regan, N. and Howard, V. (2004). Future of the Public Private Partnership (First, Trans.). In A. Ghobadian, D. Gallear, N. O'Regan and V. Howard (Eds.), *Public Private Partnerships: Policy and Experience* (pp. 271-302). Chippenham: Palgrave Macmillian.
- Grimsey, D. and Lewis, M. K. (2004). *Public Private Partnerships: The Worldwide Revolution in Infrastructure Provision and Project Finance* (First ed.). Cheltenham, U.K. Northampton, U.S.A.: Edward Elgar.
- Grimsey, D. and Lewis, M. K. (2005). Are Provate Public Partnerships Value for Money? Evaluating Alternative Approaches and Comparing Academic and Practitioner Views. *Accounting Forum*, 29, 345-378.
- Gunnigan, L. and Eaton, D. (2006, 10-13 April). *Addressing the Challenges that are Emerging in the Continued Increase in PPP use in the Republic of Ireland*. Paper presented at the BEAR 2006 Construction Sustainability and Innovation CIB W89 International Conference on Building Education and Research, Hong Kong.
- Handley-Schachler, M. and Gao, S. S. (2003). Can the Private Finance Initiative be Used in Emerging Economies? Lessons from the UK's Successes and Failures. *Managerial Finance*, 19, 36.
- Howes, R. and Robinson, H. (2005). *Infrastructure for the Built Environment: Global Procurement Strategies* (First ed.). Oxford: Butterworth-Heinemann.
- Kwan, J. (2005, 22 February). *Public Private Partnerships: Public Private Dialogue*. Paper presented at the Public Private Partnerships - Opportunities and Challenges, Hong Kong.
- Levy, S. M. (1996). *Build Operate Transfer* (First ed.). New York: John Wiley and Sons.
- Mak, C. K. and Mo, S. (2005, 22 February). *Some Aspects of the PPP Approach to Transport Infrastructure Development in Hong Kong*. Paper presented at the Public Private Partnerships - Opportunities and Challenges, Hong Kong.
- Maltby, P. (2003). Has the PFI Grown Up? *Public Finance*, 17.

- McInnis, A. (2003, 17th Decemeber). *Public Private Partnering*. Paper presented at the Symposium for Private Sector Involvement in the Procurement of Public Facilities.
- National_Audit_Office. (2003). *PFI:Construction Performance*. London: National Audit Office.
- Sapte, W. (1997). *Project Finance: The Guide to Financing Build-Operate-Transfer Projects - Uses in PPP* (First ed.). Hong Kong: Euromoney.
- Spackman, M. (2002). Public Provate Partnerships: Lessons from a British Approach. *Economic Systems*, 26, 283-301.
- Tam, A. (2006). PPP Stakes Claim for Hong Kong as an Exhibition and Entertainment Hub. *The Journal of the Hong Kong Institution of Engineers*, 7-9.
- Tieman, R. (2003, 24th November). A Revolution in Public Procurement:UK's Private Finance Initiative. *Finance Times*, 4.
- Walker, C., Mulcahy, J., Smith, A., Lam, P. T. I. and Cochrane, R. (1995). *Privatized Infrastructure* (First ed.). London: Thomas Telford.
- Walker, C. and Smith, A. (1995). *Privatized Infrastructure: the BOT Approach*. London: Thomas Telford.