Driving Forces Leading to The Adoption of PPP – Perspectives from Gujarat (India), Hong Kong and Australian Practitioners

Shakil S. Malek
PhD Scholar
CEPT University, Ahmedabad, India,

Dr. P. V. Akalkotkar
Adjunct Professor
M. Tech (CEM), Ganpat University, Ahmedabad, India

Abstract

This paper presents the findings of a study to investigate the driving forces leading to adoption for Public Private Partnership (PPP) projects. A questionnaire survey was conducted in Gujarat (India), Hong Kong and Australia. The survey respondents were asked to rate the importance of nine identified reasons for implementing PPP projects. The findings of the top three ranks for each respondent group were investigated. Ranked top by the survey respondents in Gujarat (India) was 'Shortage of Government funding'. Ranked second by all three groups of survey respondents was 'Economic development pressure demanding more facilities'. Third in Gujarat (India) and Hong Kong and first in Australia was 'High quality of service required'. The rankings showed that in general those rated highly in the Gujarat (India) focused on financial elements whereas those rated highly in Hong Kong and Australia were more related to the overall performance of improving public projects. These findings were believed to provide an idea of the possible reasons for implementing PPP projects, and as a result illustrate a clearer understanding of the process.

Keywords: Comparative study, Public Private Partnership (PPP), Gujarat (India), Hong Kong, Australia

I. INTRODUCTION

As per the Scheme for Financial Support to Public Private Partnerships in Infrastructure, of the Government of India, "Public Private Partnership (PPP) Project means a project based on a contract or concession agreement, between a Government or a statutory entity on the one side and a Private Sector Company on the other-side, for investing in construction and maintenance of infrastructure asset and / or delivering an infrastructure service".

So what is the reason that all governments across the globe favouring the PPP approach for providing their public services and facilities? The very first PPP projects that opted for this approach were simply to bring in private investment for public services and facilities [15]. These services and facilities were often essential for the public and involved huge amount of financial investment. If all these services and facilities were completely financed by the government, it would create tremendous financial pressure on the government. Therefore it would be ideal if the public could get what they want without requiring the government to pay out of the taxpayers' money, and at the same time it is creating business opportunities for the private sector also.

But as PPP has developed over the years the perceived advantages have become more obvious and the reasons for adopting this approach have gone beyond relieving the public sector's financial burden. Three main reasons for using the PPP approach suggested by Walker et al. (1995) are [36]:

1) In general, the private sector possesses better mobility than the public sector. For example, the private sector is not only able to save the costs of project in planning, design, construction and operation, but also avoid the bureaucracy and to relieve the administrative burden.
2) The private sector can provide better service to the public sector and establish a good public private partnership so that balance risk-return structure can be maintained.
3) The government lacks the ability of raising massive funds for the large-scale infrastructure projects, but private participation can mitigate the government's financial burden.

It was also suggested that supported that BOT, which is one mode of PPP, provides a win-win solution and a number of benefits to the public/government are [36]:

1) Relief of financial burden;
2) Relief of administrative burden;
3) Reduction in (inefficient) bureaucracy;
4) Better services to the public;
5) Encouragement of growth;
6) Government can better focus and fund social issues such as health, education, pensions and arts.

Ghobadian et al. (2004) suggested two additional reasons for more extensive use of PPP projects which are:

1) The private sector will get to know the needs of the public sector client over time

2) The private sector has more to offer than the public sector in terms of skills, technology and knowledge therefore providing better quality facilities.

Though their observations may not be true universally, but still they reflect the general perceptions.

The findings presented in this paper are part of a PhD research thesis, Model for PPP in Highway Projects (Case study for Gujarat) [13].

II. BRIEF HISTORY OF PPP

PPPs in sectors such as water management have existed for more than a century in some countries. The private sector has long provided goods and services to the public sector (Webb & Pulle, 2002). PPPs, though relatively new in South Africa, have a long history dating back to the time of concessions which were used in the nineteenth century to finance infrastructure such as railways and highways in Europe, America, Asia, and Africa [29].

PPP projects can be dated as far back as the 1600s during the railway construction boom in the United Kingdom [15]. PPP is a relatively modern term for this arrangement used only more commonly in the last decade. Previously different variations of the arrangement included Private Finance Initiative (PFI), which is a more familiar term to many people due to popular development in the United Kingdom during the early nineties [34].

It would not be incorrect to say that the PFI practice developed in the United Kingdom raised the world's attention to this alternative option for delivering public infrastructure and services. PPP projects now account for about 15 and 8 percent of infrastructure spent in the United Kingdom and Australia respectively [11]. Up to 2006, 794 PPP/PFI deals had already been signed. The combined capital value was approximately £55 billion (National Audit Office, 2008). Amongst these projects almost 70% were in the health sector, and over 40% costing below £10 million [2]. However it was asserted that PPP/PFI should be abolished for smaller projects and for information technology schemes.

Partnership UK was set up in 2000 to succeed the Treasury Taskforce. The Taskforce was set up in 1997 to oversee the implementation of PPP/PFI projects. One observation is that Partnerships UK was initiated by the local Treasury. The team is generally responsible for providing project advice and support, developing government policies, providing co-sponsorship and participating in investment of PPP/PFI projects [6].

Due to the long history of PPP/PFI projects in the United Kingdom, Partnerships UK has a very comprehensive collection of guidelines and policies on implementing PPP projects for all sectors in many aspects. Case study reports can also be found on the public domain. Amongst the projects conducted by Partnerships UK it was noticed that the majority included projects for schools, hospitals and transportation. Other projects which have also been conducted include environment ones, leisure facilities, prisons and detention centers, housing etc. (Partnerships UK, 2008). The extent to which PFI could be used and the advantages created were the main drivers attracting other countries to start adopting or improve their practice in PPP.

A more specific term used more commonly decades ago in Hong Kong is Build Operate and Transfer (BOT). This arrangement was commonly adopted for transportation projects. This is because transportation projects tend to be larger in size and also because their long physical lives fit well into the procurement model. Early types of public infrastructure projects that involved the private sector include the turnpikes built in the United Kingdom and The United States, and also the water facilities that the French delivered through the concession approach [15]. Although water projects tend not to be particularly large in project sum, it was noticed early on the advantages of introducing private expertise to deal with tasks that the public sector was probably not as efficient or experienced in carrying out the works. On the other hand, PPP also plays a significant role in the infrastructure development of developing countries [6].

One of the best-known infrastructure projects in terms of waterworks is the Suez Canal, which according to Hamilton (1996), was a financial success until it was nationalized in the mid-1950s. Unfortunately, during the same period, many other large infrastructure projects failed elsewhere in the world, resulting in huge financial losses. Toll roads were established in the United States, where between 1789 and 1900 there were more than 2000 private corporations operating turnpikes in Pennsylvania, New York, Ohio, Michigan and elsewhere, because of the government's inability to provide adequate highways. [29]

Italy opened the world's first modern tolled motorway between Milan and the Lakes in 1924. The first modern motorways in France and Italy were constructed in the 1950s and 1960s. Spain embarked on its motorway program in the mid-1960s as the national budget was considered inadequate to meet the demands of a booming tourist industry. The solution adopted was to use the private sector financing. The new Spanish motorway companies were all private entities, although they were subjected to a high degree of state monitoring and control. The energy crisis of the 1970s led to the collapse of most PPP companies in Italy, Spain, and France. In France, the state had to intervene and take over some of the companies and assimilate them into the public system of infrastructure. A similar development in Spain in 1983 led to the collapse of three companies representing about 15% of the motorway sector. Changed economic conditions saw the reverse process in the 1980s. Today, PPP projects in Italy and Spain are profitable, with some of them traded and quoted on the local stock exchanges.

III. RESEARCH METHODOLOGY

A. Questionnaire Design:

The practitioners' opinion on driving forces leading to adoption of PPP projects were solicited by way of a questionnaire survey. The questionnaire template designed by Esther Cheung (2009) was adopted for this study. Although a new research

questionnaire could be developed, there were several advantages foreseeable to adopt Esther Cheung's survey questionnaire rather than designing a new template. Firstly, the value of Esther Cheung's questionnaire has already been recognized by the industry at large [6]. Her publications as a result of the research findings derived from the questionnaire are evidence of its worthiness. Secondly, there would be no added advantage to reinvent the work that has previously been done by other researchers. And thirdly by administering Esther Cheung's questionnaire in different administrative systems, it would be of interest for comparison purposes in the future. In addition, the construction practice is very close to Hong Kong hence no problems in adopting this questionnaire could be observed. Therefore, Esther Cheung's questionnaire was adopted for the survey as presented in this thesis with prior permission obtained from the author Esther Cheung [6].

The questionnaire respondents were from three different sectors across the Gujarat, which are Public sector, Private sector and Researcher. As shown in Figure 1 maximum respondent, almost half were from private sector that is 48%. And 27 % were from public sector while 25% were from researcher. The reason behind maximum respondent from private sector is, in Gujarat the public sector departments are few and common while numbers of private companies are there who worked with road sector under PPP.

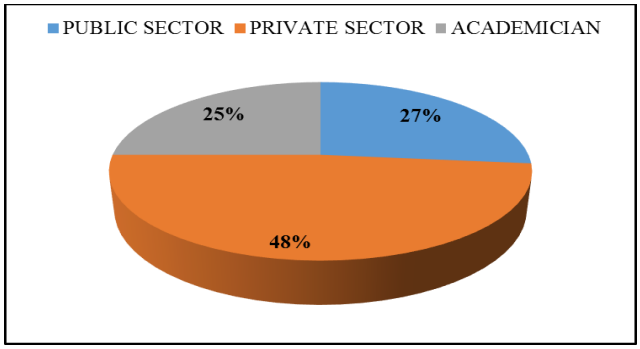

Fig. 1: Primary role of questionnaire respondent

B. Collection of Research Data:

An empirical questionnaire survey was undertaken in Gujarat to analyze the factors contributing to successful PPP projects, and then compares it with Hong Kong and Australia. The survey was conducted from May 2013 to September 2013 in Gujarat, while for Hong Kong and Australia same was from October 2007 to December 2007. The target survey respondents of the questionnaire included all industrial practitioners from the public sectors, private sectors and researchers.

These respondents were requested to rate their degree of agreement against each of the identified factors contributing to successful PPP projects according to a Likert five-point scale in which 1 is Least Important and 5 is Most Important. Target respondents were selected based on their adequate knowledge in the area of PPP and their hands-on experience with PPP projects, experience in conducting PPP research or have followed very closely with the development of PPP.

Survey questionnaires were sent to100 target respondents in Gujarat, 95 target respondents in Hong Kong and 80 target respondents in Australia. It was anticipated that some of these target respondents would have colleagues and personal connections knowledgeable in the area of PPP to participate in this research study as well; hence some of the respondents were dispatched blank copies of the survey form. A total of 80 completed questionnaires from Gujarat, 34 from Hong Kong and 11 from Australia were returned representing response rates of 80%, 36% and 9%, respectively. In Gujarat out of 80 filled questionnaires 16 questionnaires were rejected due to inadequate response. The lower response rate in Hong Kong and Australia were expected as the questionnaire was administered from Gujarat, hence geographical complications were perceived. But as this paper mainly focuses on Gujarat, the responses received from Hong Kong and Australia was used for reference only.

The working experience of the respondent of Gujarat, Hong Kong and Australia is mentioned in Figure 2. For better and perfect result tried to focus the respondents with rich working experience in the field of PPP road projects, directly or indirectly. As shown in Figure 2, 42% respondents have more than 20 years of experience. Same way 41% respondents have experience in between 11 to 20 years. Only 17 % respondents are there having experience less than 10 years. From figure 2 approximately half of the respondents in Hong Kong and Australia possessed twenty-one years or above of industrial experience. It clearly shows that the respondents from all three different regions were having very rich work experience, which assures the value and reliability of the findings.

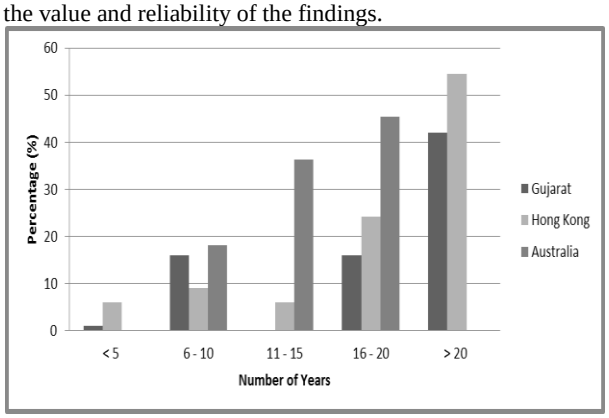

Fig. 2: Number of years of working experience in Road sector for all respondents

C. Tools for Data Analysis:

The techniques that were used in this research paper, in respect of quantitative analysis include the mean score ranking technique, Chi square and ANOVA analysis. The five-point Likert scale (1 = Least Important and 5 = Most Important) as described previously was used to calculate the mean score for each factor, which was then used to determine its relative ranking in descending order of importance. These rankings made it possible to triangulate the relative importance of the factors to the respondents from India/Gujarat, Hong Kong and Australia as presented in Esther Cheung's survey (2009).

In this paper Chi square test is used to check the independence of the collected data. As a test of independence, □2 test enables to explain whether or not two attributes are associated. For instance, in this paper attributes of Gujarat was associated with Hong Kong and Australia. On this basis we first calculate the expected frequencies and then work out the value of □2. If the calculated value of □2 is less than the table value at a certain level of significance for given degrees of freedom, we conclude that null hypothesis stands which means that the two attributes are independent or not. But if the calculated value of □2 is greater than its table value, our inference then would be that null hypothesis does not hold good which means the two attributes are associated and the association is not because of some chance factor but it exists in reality. It may, however, be stated here that □2is not a measure of the degree of relationship or the form of relationship between two attributes, but is simply a technique of judging the significance of such association or relationship between two attributes.

Analysis of Variance (abbreviated as ANOVA) is an extremely useful technique concerning researchers in the field of economics, biology, management and other disciplines. This technique is used when multiple sample cases are involved. In this paper three different cases of Gujarat, Hong Kong and Australia was involved.

As mentioned in questionnaire, a total of nine reasons for implementing PPP projects were rated by the respondents. The top three reasons ranked in Gujarat included:

1) Shortage of government funding;
2) Economic development pressure of demanding more facilities; and
3) High quality of service required.

For further analysis with the help of one tail ANOVA the validation of data is performed and the output is mentioned in Table I.

Table – 1
Anova Analysis Output-1 for driving forces leading to the adoption of PPP

Factors	*Count*	*Sum*	*Average*	*Variance*
Economic development pressure of demanding more facilities	*64*	*263*	*4.1093*	*1.0830*
Political pressure	*64*	*146*	*2.2812*	*1.4751*
Social pressure of public facilities	*64*	*200*	*3.1250*	*1.5714*
Private incentive	*64*	*203*	*3.1718*	*1.5096*
Shortage of government funding	*64*	*273*	*4.2656*	*0.7695*
Inefficiency because of public monopoly and lack of competition	*64*	*180*	*2.8125*	*1.5198*
High quality of service required	*64*	*246*	*3.8437*	*1.0228*
Avoid public investment restriction	*64*	*194*	*3.0312*	*1.0783*
Lack of business and profit generating skill in the public sector	*64*	*181*	*2.8281*	*1.6049*

As mentioned in Table 3 for 8 degree of freedom (df) the F value is greater than F critical value, which shows that the assessment by the respondents within each group on their rankings of driving forces leading to the adoption of PPP is consistent. This finding ensures that the completed questionnaires were valid for further analysis.

Table – 2
ANOVA Analysis Output-2 for Driving forces leading to the adoption of PPP

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F critical*
Between Groups	*223.6597*	*8*	*27.95747*	*21.62603*	*8.37E-29*	*1.95472*
Within Groups	*733*	*567*	*1.292769*			
Total	*956.6597*	*575*				

As shown in Table III Chi square analysis for 64 respondents of Gujarat, with 34 respondent of Hong Kong and 11 respondents of Australia was conducted. According to 9 degree of freedom and 0.05 level of significance, the critical value of Chi-square were 16.919 for both groups the computed Chi-square values were all above the critical value of Chi-square (19.23 and 20.44 respectively). Therefore the assessment by the respondents within each group on their rankings of driving forces leading to the adoption of PPP is proved to be consistent, so data is accepted.

Table – 3
Chi square analysis for Driving forces leading to the adoption of PPP

Chi – square Analysis	*Gujarat Hong Kong*	*Gujarat Australia*
No. of survey respondents	*64 & 34*	*64 & 11*
Chi square value	*19.23*	*20.44*
Critical Chi square value (From Table)	*16.919*	*16.919*

Degree of freedom (dF)	*9*	*9*
Level of Significance	*0.05*	*0.05*

Ranked first by Gujarat respondents was "Shortage of government funding". One of the main reasons for the rise of PPP/Private Finance Initiative (PFI) projects in the Gujarat/India was due to financial resources from the private sector. The government was able to continue delivering public infrastructure by involving the private sector. As a result especially in the early days of implementation a heavy emphasis on finance has always been associated to PPP projects. Nowadays while delivering the public projects by involving the private sector finance is not the only element to be considered.

Ranked second by respondents in Gujarat, Hong Kong and Australia was "Economic development pressure demanding more facilities". The similar ranking pattern across the three survey groups represents that the importance of this reason for implementing PPP projects is applicable irrespective of geographical differences. Hence all survey respondents felt that PPP projects are implemented due to economic pressure to provide more public facilities. The similar ranking pattern could also be a reflection of the real life situation that the survey respondents have observed.

The third reason for implementing PPP projects ranked by respondents from Gujarat and Hong Kong was "High quality of service required". Being an international city, maintaining high quality in services is very important. This feeling was also reflected by the survey respondents, as they felt that this is also a reason for implementing PPP projects. In Australia this reason for implementing PPP projects was ranked first. The findings also show that irrespective of geographical differences the response was same.

The top reason for implementing PPP projects ranked by respondents from Hong Kong was "Private incentive". It is obvious that practitioners across the world can foresee the advantages of involving the private sector into conducting public works projects. The private sector can add value to these projects in many ways such as financially, via expertise, innovation, risk sharing and above all motivation. This finding has indicated that the Hong Kong respondents felt that the main reason for implementing public works projects by PPP is to acquire the added value from the private sector. In Gujarat and Australia this reason for implementing PPP projects was ranked lower at fourth place, indicating that those respondents did not feel so strongly to involve the private sector for their added value.

In Australia, the respondents ranked "Inefficiency because of public monopoly and lack of competition" third. Due to the size, complexity, challenges and long concession period of PPP projects, they tend to be limited to be conducted by only those very large private sector companies. These companies will normally possess sufficient finance, expertise and skills to implement PPP projects. Therefore for those who are not involved with the PPP process they may feel that public monopoly and lack of competition exists. This occurrence is often partially true but then only those capable parties will possess the power to participate with PPP projects [6].

The mean values of the reasons for implementing PPP projects as rated by Gujarat respondents ranged from 2.28 to 4.27. This observation has reflected that the variation in their responses is quite large, 1.99 for Gujarat. In Hong Kong and Australia the means ranged from 2.79 to 3.56 and 2.18 to 3.91 respectively. The corresponding differences in means were 0.77 and 1.73 respectively. The differences in means were much higher for the survey conducted in Gujarat and Australia compared to Hong Kong.

As the respondents were asked to rate the nine reasons for implementing PPP projects according to a Likert scale from 1 to 5 (1 = Least Important and 5 = Most Important), a value above "3" would represent that the reason for implementing PPP projects is of importance. Amongst the reasons for implementing PPP projects only three were ranked below "3" in the Gujarat rank. These reasons for implementing PPP projects were "Lack of business and profit generating skill in the public sector", "Inefficiency because of public monopoly and lack of competition" and "Political pressure" which scored 2.83, 2.81 and 2.28 respectively.

For Hong Kong and Australia, three and four reasons for implementing PPP projects rated below "3" respectively. In Australia, two of these were the same as those for Hong Kong ("Political pressure" and "Avoid public investment restriction" with scores of 2.45 and 2.18 respectively). The other two in Australia were "Shortage of government funding" and "Lack of business and profit generating skill in the public sector" which scored 2.64 and 2.82 respectively. The other one reason in Hong Kong was "Social pressure of public facilities" which scored 2.88.

IV. CONCLUSION

This paper has formed a comparative study for the driving forces leading to adoption of PPP projects between Gujarat (India), Hong Kong and Australia. It is anticipated that the findings can indicate to practitioners the main driving forces for implementing PPP and as a result ensure a clear-cut understanding of the PPP projects across geographic boundaries.

The findings have shown that in general those reasons ranked high by all three respondents focused on improving the overall performance of public projects whereas those that were rated high by the Gujarat (India) respondents focused on the financial aspect of the projects. Ranked in the top three by Gujarat (India) respondents was 'Shortage of government funding'; 'Economic development pressure demanding more facilities'; and 'High quality of service required'. In Australia and the Hong Kong both groups of respondents also ranked their second reason the same as Gujarat (India).

The reason 'Private incentive' was attractive in Hong Kong and Australia may be due to the added value which could be applied to public works projects by the private sector. One of the main reasons to adopt PPP is that the public works project can take advantage from the private sector's expertise, innovation, motivation and experience. Same way across the world, for many governments 'Economic development pressure demanding more facilities' is very common. Even though governments such as Hong Kong and Australia are capable to finance their own projects, there are also other areas in society where they need to support. So by using money from the private sector, governments can utilize their resources much more effectively. Particularly, in international cities, 'High quality of service required' to maintain their status and competition is common. Most of governments first started to implement PPP projects due to 'Shortage of government funding'. On the other hand, when the government is under tight budget controls implementing PPP projects could also 'Avoid public investment restriction'.

REFERENCES

[1] Abdul-Rashid, A. A., Puteri, S. J. K., Ahmed, U. A. and Mastura, J. (2006). "Public private partnerships (PPP) in housing development: the experience of IJM Malaysia in Hyderabad, India." Accelerating Excellence in the Built Environment, October 2 – 4, 2006, Birmingham, United Kingdom.

[2] Akintoye A. (2007). "Developments in the UK Public Private Partnerships: Lessons for the New PPP Ventures." Proceedings of the 2007 International Conference on Concession Public / Infrastructural Projects (ICCPIP), Dalian University of Technology, China, August 24-26, 2007, Keynote Paper.
[3] Akintoye, A., Beck, M., Hardcastle, C., Chinyio, E. and Asenova, D. (2001). "The financial structure of Private Finance Initiative projects." Proceedings of the 17th ARCOM Annual Conference, Salford University, Manchester, United Kingdom, 1361-9.
[4] Birnie, J. (1999). "Private Finance Initiative (PFI) – UK construction industry response." Journal of Construction Procurement, 5(1), 5-14.
[5] Chan, D. W. M., and Kumaraswamy, M. M. (1996). "An evaluation of construction time performance in the building industry." Building and Environment, 31(6), 569-578.
[6] Cheung, E. (2009). Developing a Best Practice Framework for Implementing Public Private Partnerships (PPP) in Hong Kong. (PhD thesis). School of Urban Development, Faculty of Built Environment and Engineering. Queensland University of Technology, Brisbane, Australia.
[7] Cobb, J.M. (2005). Financing Bangkok's Mass Transit, IDC TransGate <http://www.idcworld.com/bangkok.htm> (May 23, 2007).
[8] Corbett, P. and Smith, R. (2006). "An analysis of the success of the Private Finance Initiative as the Government's preferred procurement route." Proceedings of the Accelerating Excellence in the Built Environment Conference, Birmingham, United Kingdom, October 2-4, 2006.
[9] Efficiency Unit (2003). Serving the community by using the private sector – An introductory guide to public private partnerships (PPPs), Hong Kong Special Administrative Region Government.
[10] El-Gohary, N. M., Osman, H. and El-Diraby, T. E. (2006). "Stakeholder management for public private partnerships." International Journal of Project Management, 24, 595-604.
[11] Ernst., & Young. (2005). Australian PPP Survey – Issues Facing the Australian PPP Market.
[12] Gentry, B. S. and Fernandez, L. O. (1997). "Evolving public-private partnerships: general themes and urban water examples." Proceedings of the OECD Workshop on Globalization and the Environment: Perspectives from OECD and Dynamic Non-Member Economies, Paris, November 13 – 14, 1997, 19-25.
[13] Ghobadian, A., Gallear, D., O'Regan, N., & Howard, V. (2004). Future of the Public Private Partnership. In Public Private Partnerships: Policy and Experience (pp. 271-302). Chippenham: Palgrave Macmillan.
[14] Grant, T (1996) "Keys to successful public-private partnerships." Canadian Business Review, 23(3), 27-8.
[15] Grimsey, D., & Lewis, M. (2004). Public private partnerships: The worldwide revolution in infrastructure provision and project finance. Northampton, MA: Edward Elgar Publishing.
[16] Jamali, D. (2004). "Success and failure mechanisms of public private partnerships (PPPs) in developing countries: insights from the Lebanese context." International Journal of Public Sector Management, 17(5), 414-30.
[17] Jefferies, M. (2006) "Critical success factors of public private sector partnerships a case study of the Sydney SuperDome." Engineering, Construction and Architectural Management, 13(5), 451-462.
[18] Jefferies, M., Gameson, R. and Rowlinson, S. (2002). "Critical success factors of the BOOT procurement system: reflections from the Stadium Australia case study." Engineering Construction and Architectural Management, 9(4), 352.
[19] Kanter, R. M. (1999). "From spare change to real change." Harvard Business Review, 77(2), 122-32.
[20] Khang, D.G. (1998). Hopewell's Bangkok Elevated Transport System (BETS), School of Management, AIT, Bangkok, Thailand.
[21] Li, B. (2003). Risk management of construction public private partnership projects, Ph.D Thesis, Glasgow Caledonian University, United Kingdom.
[22] Li, B., Akintoye, A., Edwards, P. J., & Hardcastle, C. (2005). Perceptions of positive and negative factors influencing the attractiveness of PPP/PFI procurement for construction projects in the UK : Findings from a questionnaire survey. Engineering, Construction and Architectural Management, 12(2), 125-148. doi:10.1108/09699980510584485
[23] Maltby, P. (2003, August). Has the PFI grown up? Public Finance. Hong Kong.
[24] National Audit Office (2001). Managing the Relationship to Secure a Successful Partnership in PFI Projects, HC375, National Audit Office, United Kingdom, November 29, 2001.
[25] National Audit Office (2008). "Background to Private Finance." http://www.nao.org.uk/practice_areas/private_finance/background.htm (June 13, 2008).
[26] National Council of Applied Economic Research (2006, May). Public Private Partnership for Infrastructure Development: Lessons for India. Connexions, 2(3), 2-4.
[27] National Treasury PPP Unit of South Africa (2007). Public Private Partnership Manual, <http://www.treasury.gov.za/organisation/ppp/default.htm> (June 15, 2007).
[28] Nijkamp, P, Van der Burch, M. and Vindigni G. (2002). "A Comparative Institutional Evaluation of Public Private Partnerships in Dutch Urban Land-use and Revitalization Projects." Urban Studies, 39(10), 1865–80.
[29] Nyagwachi, J. N. (2008). South African Public Private Partnership (PPP) Projects. (PhD thesis). Faculty of Engineering, The Built Environment and Information Technology, Nelson Mandela Metropolitan University, South Africa.
[30] Qiao, L., Wang, S. Q., Tiong, R. L., & Chan, T. (2001). Framework for Critical Success Factors of BOT Projects in China. The Journal of Structured Finance, 7(1), 53-61. doi:10.3905/jsf.2001.320244
[31] Rai, V. (2009). Public Private Partnerships (PPP) in Infrastructure Projects Public Auditing Guidelines. New Delhi: Comptroller & Auditor General of India.
[32] Siegel, S. and Castellan, N. J. (1988). Nonparametric Statistics for the Behavioral Sciences. McGraw-Hill, Inc.
[33] Tam, C. M., Li, W. Y. and Chan, A. P. C. (1994). "BOT applications in the power industry of South East Asia: a case study in China. In: East Meets West" Procurement Systems Symposium CIB W92 Proceedings Publication 175, 315 - 322.
[34] Tieman, R. (2003, November 24). A revolution in public procurement: UK's private finance initiative. Finance Times [London], p. 4.
[35] Tiong, R. L., & Yeo, K., & McCarthy, S. C. (1992). Critical Success Factors in Winning BOT Contracts. Journal of Construction Engineering and Management, 118(2), 217-228. doi:10.1061/(asce)0733-9364(1992)118:2(217)
[36] Walker, C., Mulcahy, J., Smith, A., Lam, P.T.I., & Coachrane, R. (1995). Privatized Infrastructure. London: Thomas Telford.
[37] Wong, A. (2007). "Lessons Learned from Implementing Infrastructure PPPs – A View from Singapore." Seminar jointly organized by the Department of Civil Engineering of The University of Hong Kong and Civil Division of The Hong Kong Institution of Engineers, June 13, 2007.
[38] Zhang, X. Q. (2005). "Critical Success factors for Public–Private Partnerships in Infrastructure Development." Journal of Construction Engineering and management."