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Public–private partnerships and contract negotiations: an empirical study

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Despite the increasing popularity in the use of the public–private partnership concept as a procurement strategy, there have been reported cases of problems associated with the initial stages of the process in terms of unduly high bidding costs and pre-contract time overruns due mainly to the protracted nature of the negotiations. Empirical research conducted in the UK has focused on the extent of these pre-contract time and cost overruns. The key attributes of both the private sector consortia and the public sector organizations that have significant bearing on the efficiency of the pre-contract processes are: the nature and strength of the consortium, the quality of the technical proposals they produce for the bid, and the quality of their financial proposals. For the public sector organizations they are the organizational capabilities and technical capabilities. The financial capabilities of the public sector are ranked lowest in influencing the procurement process. Whilst there was broad agreement on the ranking of importance for the various descriptive attributes, differences between the two sectors are revealed relating to risk, previous experience, evaluation criteria in the bidding documents and effect of public opinion. A better understanding of what is important to each party in the negotiations is an important step in improving the PPP process.

Keywords: Public–private partnerships, negotiation, consortium, public sector, procurement

Introduction

Public–private partnerships (PPP) are a rapidly growing means of procuring infrastructure assets and their associated services, signalling a fundamental shift in the relationship between the state and industry. The focus of the paper is on the difficulties encountered during the tendering and negotiation phase of the PPP project procurement. Despite its international appeal, the PPP concept including the other variants such as the Build–Own–Operate–Transfer (BOOT) forms of procuring public infrastructure have been accompanied by problems associated with tendering and negotiation of the contracts between public sector clients and private sector providers. Excessive time overruns during the pre-contract stages resulting in huge advisory cost overruns have been reported on some of the projects procured through the strategy (Owen and Merna, 1999;

Tam, 1999; *The Herald*, 2002). In fact, cost overruns of up to 600% have been reported in some instances (NAO, 1999a, p. 49). Earlier research, (Ahadzi and Bowles, 2001a), identified the contract negotiation as the critical stage during which delays are most prominent. The current research therefore aims at:

- (1) investigating the extent of these delays and their effect on the pre-contract/bidding costs;
- (2) identifying those characteristic attributes of the private sector consortium and the public sector client organizations that significantly influence the successful negotiation of the PPP contracts; and
- (3) exploring the basic differences in perception between the private sector and the public sector clients on the relative importance of the key attributes that influence the outcome of the negotiation processes.

Highlighting such influencing attributes on the negotiation outcomes and the perceptual differences between

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the main parties on their relative importance will lead to a greater understanding of the emphasis each party places on respective elements of the negotiation. This may then allow them to identify and work on potentially tricky and contentious areas from the outset. It should also enable parties to better understand each other's concerns and values, leading to more predictable and efficient bidding process. The paper begins by first providing an overview of the PPP philosophy and a brief review of the literature on negotiation theory.

PPP project procurement: bidding and negotiation process

Although the term public-private partnership may be interpreted in different contexts from country to country, it is essentially a form of collaboration between the public and private sectors. A classical definition is therefore provided by the Canadian Council for public-private partnerships as: 'A co-operative venture between the public and private sectors, built on the expertise of each partner, that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards' (CCPP, 2001, p.v). The basic principle is that state departments are transformed from being owners and operators of assets into the purchasers of services from the private sector, with the private sector becoming long-term providers of services which they deliver by taking the responsibility for the design, construction, financing and the operation of the assets.

The entire PPP procurement process may be broken into four main stages; i.e. the planning and feasibility phase, the bidding and negotiation phase, the construction phase, the operation phase and possibly the transfer and/or renegotiation phase. Figure 1 provides an outline of the bidding and negotiation phase of the PPP procurement process within the UK – the stage that forms the main focus of this paper. Right from this initial stage of the process, all the key players will begin to exert significant influences. Hence, the outcome of the PPP pre-contract phase in terms of how efficiently it is conducted with respect to time and cost will be greatly influenced by the characteristic attributes each player brings to bear on the process.

In every negotiation interaction, be it social, labour, political or contractual, there are hosts of influencing factors that come to play in shaping the outcome of the negotiations in terms of the time it takes to reach a satisfactory agreement including the cost to the parties. These may include the *influence strategies and skills of the parties*; the *behavioural predisposition of the parties*; and the *situational influence on the parties* (Walton and McKersie, 1965; Rubin and Brown, 1975; Raifa, 1982; Kennedy

et al., 1987; McCall and Warrington, 1989; Ury, 1992; Phatak and Habib, 1996; Brett *et al.*, 1998; Maxwell *et al.*, 2003; Naquin, 2003).

Within the context of contract negotiations envisaged under the PPP schemes, the aforementioned centres of influence may significantly shape the outcome of the negotiations. These factors could broadly be categorized as stemming from the attributes relating to the parties to the negotiations (Tiong, 1995, 1996; Songer *et al.*, 1997; Gupta and Narasimham, 1998; Ozdoganm and Birgonul, 2000; Wang *et al.*, 2000).

A critical finding in research on negotiations identified that over 80% of the time is spent arguing (Kennedy *et al.*, 1987, p. 51). It is for this very reason that this aspect of the research is focusing on the parties to the negotiation – the consortium and the public sector procurer, so as to identify those attributes that need to be worked on in order to improve their respective skills in pushing through to speedier but satisfactory negotiations. The theory on negotiations indicates that whenever a yawning gap exists between the minimum expectations of the negotiating parties (i.e. the bargaining arena within the bargaining continuum), the process towards reaching a meaningful agreement could be frustratingly long (Kennedy *et al.*, 1987).

The PPP concept is increasingly being embraced by many countries and supported by a number of international institutions. Prominent among them are the USA, the UK, Canada, Australia, South Africa, Japan, Finland, the World Bank, the European Investment Bank and the UN (Brook, 2001; Hamilton, 2001; Kouvarakis, 2001; The PFI Report, 2001). The concept is equally generating a fair amount of research interest. Akintoye *et al.* (2001), for example, examined risk assessment and management within projects procured through the strategy; the Construction Industry Council (2000), also commissioned research into the role of cost saving and innovation in projects procured through the strategy; and Pollock *et al.* (2002), reviewed the value for money issues in PFI/PPP projects within the health sector.

The main drivers behind the PPP have been identified as budget deficits, ageing or poor infrastructure, and growing demand on public sector services. Others include the search for greater efficiency and creativity in the delivery of public services through the use of private sector managerial and technical skills, the desire to introduce competition and the shortage of domestic experience especially in the developing economies (Modic, 1989; Kinnock, 1998; HM Treasury, 1998; Office for National Statistics (UK), 2000; Ahadzi and Bowles, 2001b; D&P Report, 2001; *Financial Times*, 2002;). As a result of this strategic rethink however, a number of funding options are now available for the provision and maintenance of public and social infrastructure as shown in Figure 2.

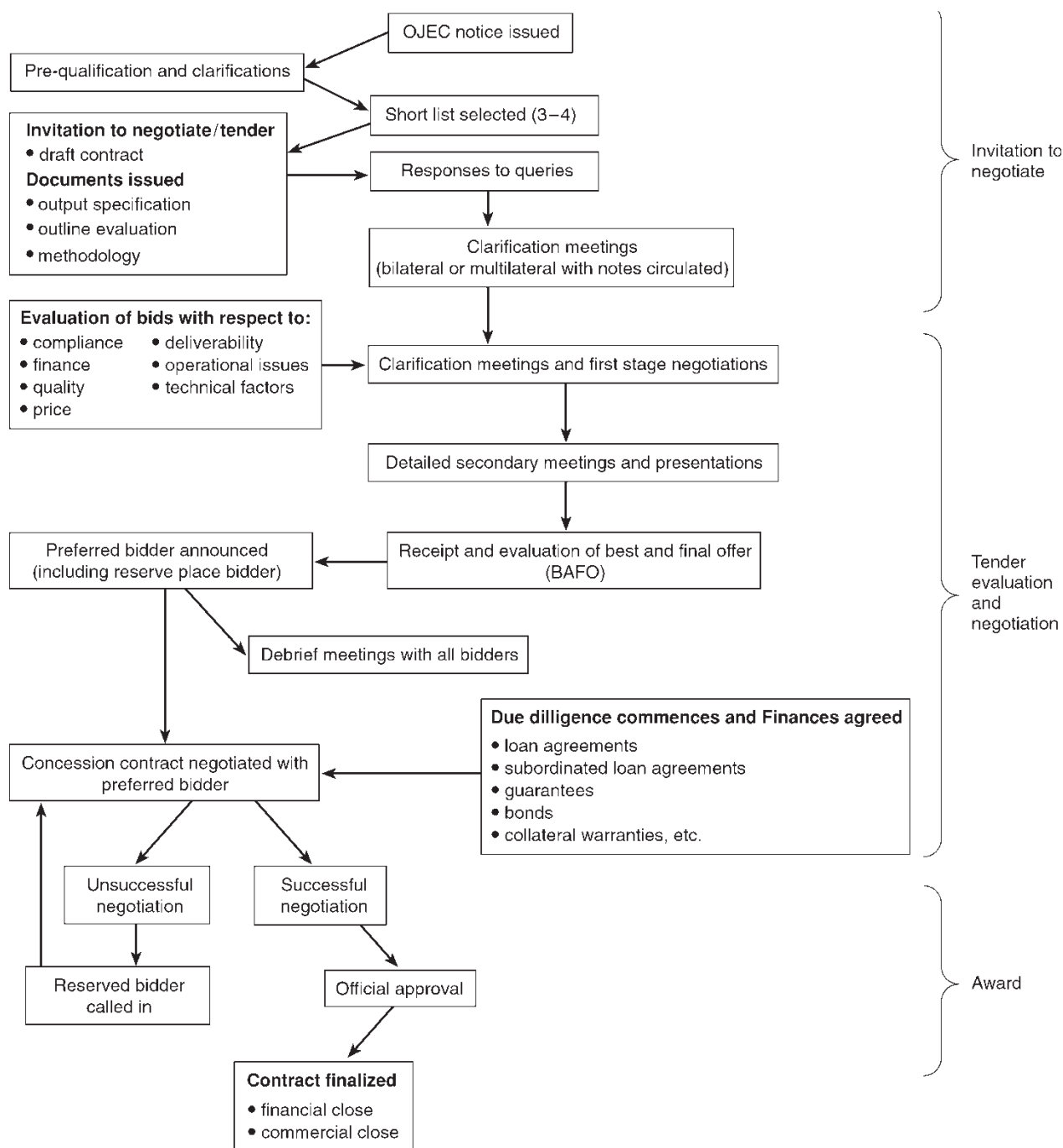


Figure 1 The PPP procurement stages up to financial close
Source: Ahadzi and Bowles, (2001a)

Research method

The approach adopted in this research was to first review extensively the literature on infrastructure procurement using the PPP concept in order to identify the problems associated with the process towards the formalization of the contracts. This was followed by a

review of the literature on negotiation theory. Opinions were also gathered during two public forums organized on a major PPP schools project in the UK, and during workshops at a two-day international conference on the PPP philosophy held on London. Semi-structured interviews were then conducted with a limited number of experts who have actively participated in the PPP

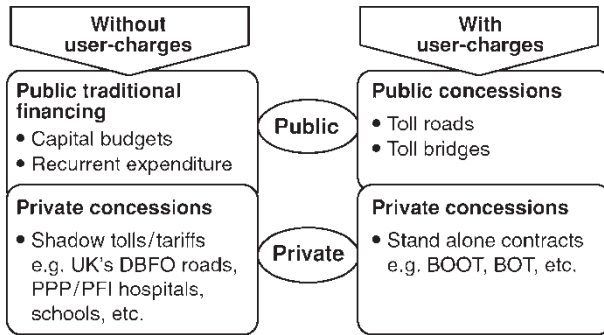


Figure 2 Funding options for public infrastructure

procurement processes. This initial process helped in affirming the issues and the main centres of influence on the PPP negotiation outcome identified in the literature. A questionnaire was then drawn up for an industry-wide survey targeted particularly at those involved in the use of the philosophy within the UK. The UK is currently in the forefront of not only embracing the strategy, but also vigorously refining and promoting it internationally since it first launched the concept through the Private Finance Initiative (PFI) in 1992 (D & P Report, 2001; Stone, 2001).

The list of respondents was drawn from a database compiled by Centaur in collaboration with Her Majesty's Treasury (Centaur, 2002). This database contains a comprehensive listing of the names of top ranking firms, financial institutions, public sector clients and individuals involved in project procurement using the PPP/Private Finance strategy including the list of PPP/PFI projects they were involved in. In all, 300 questionnaires were sent out to individuals selected primarily on the basis of their names being attached to concluded deals either as project managers, legal, technical or financial advisers, out of which 62 were returned representing a response rate of 21%. As a check for non-response bias, the response rate for this study compares favourably with the level of responses obtained for other UK wide research in the area of the PPP. Bing Li *et al.* (2002) reported 12% rate (61 out of 500) for their research on Risk Management in PPP and 9.9% (68 of 700) for the Institute for Public Policy Research's (IPPR) call of evidence for consultations on the PPP.

Objective (a) of the research has been accomplished using descriptive statistics based on the precontract time and cost data provided by the respondents on specific infrastructure projects procured using the PPP concept. Objectives (b) and (c) were realized through the part of questionnaire designed to make informed judgement on the carefully selected attributes obtained during the extensive review of the literature on contract

negotiations and the PPP strategy, the workshops, and the interviews. A sample of the this part of the questionnaire can be found in the appendix.

The analytical tool adopted is that of Multi-Criteria Decision Theory which is based on the principle that among all achievable scores for any i th attribute, there is at least one extreme or ideal value that is preferred to all others. This may be called the 'anchor value' and denoted as x^*i . There is thus the axiom that: *Alternatives that are closer to the ideal are preferred to those that are further away. To be as close as possible to the perceived ideal is the rational to human choice.* The approach is to have the decision maker rank the attributes in order of their significance, e.g. low significance = 1, average significance = 2, etc. (Zeleny, 1982, pp. 153–98). This methodology has been used extensively in project management and construction related research (see, for example, Okpala and Aniekwu, 1988; Kumaraswamy and Dissanayaka 1998; Cheung *et al.*, 2000; Wong *et al.*, 2002).

The relative significance of the attributes has been determined by the index:

$$(isub) = \sum_{i=1}^n r / (r^* \times n) \quad (1)$$

and

$$(imain) = \sum_{i=1}^n r / (r^* \times n \times N) \quad (2)$$

where $(isub)$ is the relative significance index for the sub-attributes; $(imain)$ is the relative significance index for the main attributes; r is the degree of significance assigned by each respondent to the i th attribute; r^* is the ideal or anchor score i.e. highest score (5 in this case); n is the number of responses; and N is the total number of sub-attributes under each main attribute.

The analysis was based on 49 responses, of which 25 came from the private sector and 24 from the public sector respondents. The category of private sector respondents ranged from chief executives, project managers, bid managers, legal, financial and property advisers and senior lenders, whose experience in PPP/PFI project procurement ranged from five to over 10 tenders. The public sector respondents also comprised personnel of similar ranking, whose experience ranged from one project to over 10 projects depending on whether they acted as in-house experts or external advisers. These experience levels of the respondents could be considered as high, considering the fact that the concept is quite new and most public sector projects procured using the PPP/PFI route are generally one-off.

The research findings

Pre-contract time and cost outturns

This part of the study reviewed data provided on 12 health projects ranging in capital values from £30m–£200m; 17 school projects with capital values in the range of £12m–£75m; and 13 major civil engineering projects worth £30m–£300m in capital values. The data indicated 98% of the projects had overrun their pre-contract time estimates ranging from 11–166%. The highest of these were noticed for the schools projects as indicated in Figures 3 and 4. The total negotiation time scales have equally been very high with some close to 50 months.

Bidding and advisory costs to both the private and the public sectors were found to be equally high ranging from £0.1–2.0 million depending on project type. There were equally substantial overruns on the advisory and bidding costs ranging 25–200% as a result of the

continued retention of advisors by both sides during the protracted negotiations.

With bidding costs for PPP projects identified as generally very high compared to the other modes of infrastructure procurement (House of Commons, 1996; Ahadzi and Bowles, 2001a), these excessive delays and cost overruns can only make the process more exasperating. It is for this reason that the second and third objectives of this research are aimed at unearthing the factors that could help in making the process a little more painless in order to move the process forward in an efficient manner without compromising on value for money based on the principles of effective negotiations.

The influencing attributes

The relative significance index and the ranking of the attributes relating to the consortium and those relating to the public sector procurer are as indicated in Tables 1 and 2 respectively. The projects covered included those of schools, hospitals, civil engineering projects, fire stations and office buildings.

Discussions on the findings

The time and cost out-turns

This result confirms concerns raised elsewhere that the process towards securing the PPP contracts could be frustratingly long and costly (NAO, 1999a, 1999b). According to Owen and Merna (1999), these sorts of delays resulted in some high profile withdrawals by the private sector from the bidding process particularly during the early day of the PPP/PFI concept. An interesting feature of this finding is that the major civil engineering projects procured through the PPP route by way of design build finance and operate (DBFO) have had their pre-contract cost and time overruns better contained, as the obtained data showed a much smaller variation in the cost and time outturns for these civil engineering projects. Generally, these projects are centrally procured, such as through the Highway Agency for the major road projects. These centralized institutions tend to be frequent and major buyers of construction services, which may thus explain the underlying principle in the negotiation literature that the outcome of any bargaining process is significantly influenced by such elements as: the degree of mutual dependence and the distribution of power between the parties; previous experience and interaction; the organizational culture and strategy; and the extend of conflict of interest and perceptual distortions both within the individual organizations and that between the bargaining parties (McCall and Warrington, 1989).

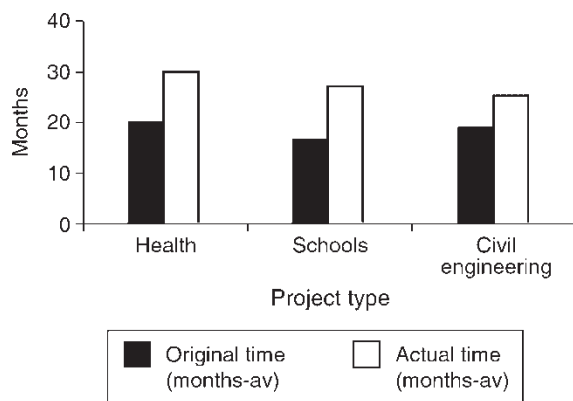


Figure 3 Average pre-contract time outturns

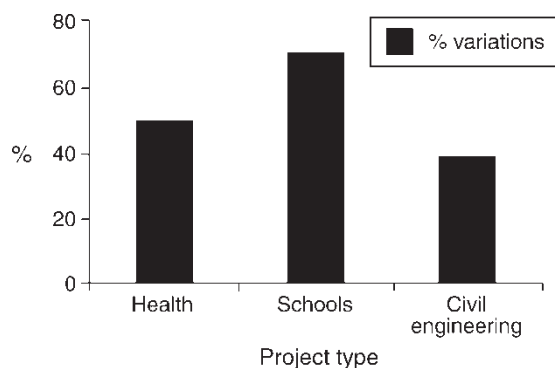


Figure 4 Percentage of variance on pre-contract time outturns

Consortium attributes

Discussion of the results is presented here in two parts. The first part relates to key characteristic attributes identified as positively influencing the outcome of the negotiation processes while the second part deals with the divergence in perceptions of both the private and the public sectors on these influencing attributes. The intention is to draw attention to those areas where there are strong divergences for both sides to work on if the desire to eliminate unwarranted delays and excessive pre-contract costs is to be achieved. As noted by Marsh (1984), negotiation is, in all essence, a dynamic process of adjusting by which two parties, each with their own objectives, confer together to reach a mutually satisfying agreement on a number of common interests by converting as far as possible the issues dividing them into problems to be solved.

Key consortium attributes

The results presented in Table 1 show rank order ratings for attributes of tendering consortia that have a positive influence on negotiations. General perception of all respondents, as well as differences in perception between public and private sector parties are also presented in the table.

It can be seen that, overall, the group of attributes relating to the nature and strength of the consortium is top. These include a mix of hard organizational and soft people issues. The former includes appointing a dedicated bid manager and involving at an early stage all relevant stakeholders. The latter includes open and frank communication between participants in a harmonious working environment. These attributes are followed by the consortium's readiness to accept risk. Though previous experience of PPP procurement may be regarded as of relatively low priority, it may be the means to achieving the other soft and hard attributes and not an end in itself. The relatively high ranking of the ability to persevere during protracted negotiations is an indication of the problems that prevail in lengthy negotiation.

The group of attributes relating to the quality of technical proposals produced for the bid comes second in order of significance. Clear and robust designs are often seen to be of key importance, as both public and private sector parties are likely to be more comfortable with proven and well-understood solutions. It is ironic that a key objective of PPP – encouraging innovation in design solutions – is rated so lowly as a success factor in negotiations by all concerned. Perhaps this is not surprising as innovation and technical complexity create conditions of uncertainty in meeting project objectives.

The group of attributes relating to the quality of financial proposals is rated significantly lower; with the most significant in this group being the level of

tariff/tolls proposed for the project. The credibility of financiers is also ranked highly important.

Perceptual differences between the public and private sectors on the consortium attributes

Nature and strength attributes of the private sector consortium are the source of most differences in opinion, with about half of the attributes in this category ranked quite differently between public and private sector respondents. In contrast, there was full agreement on the relative importance of those attributes related to the quality of bidders technical and design proposals. The quality of the financial proposals category highlighted some differences in opinion on relative importance of individual attributes, but no substantial differences in their relative significance index. Comments on particular attributes follow below.

- *Open and frank communications during negotiations:* public sector attached considerably more importance to this attribute than their private sector counterparts, rating this as third highest in importance among the attributes related to the nature and strength of the consortium organization. This may reflect public sector suspicion or wariness that bidders, driven by maximizing profits for their shareholders and investors, may approach negotiations with a different agenda. They may fear being disadvantaged by the overriding commercial concerns and hard-nosed approach to negotiations by bidders, whereas the client is subject to considerable scrutiny and accountability through auditing processes. Responses from the private sector reveal they do not perceive openness or otherwise in their own approach to be of major influence in improving negotiation process as do the public sector.
- *Early involvement of stakeholders:* the private sector sees early involvement and commitment of stakeholders of greater importance than their public sector counterparts which is perhaps to be expected since they are responsible for forming the consortium. This can be a complex and time consuming process, often involving a large number of participants required in the funding, design and procurement of the asset as well as service delivery for the length of the concession. The public sector, acting as enablers, have largely divested themselves of these responsibilities to focus on the service actually being delivered which is consistent with PPP philosophy.
- *Readiness to accept risk:* the public sector appears much more concerned about the consortium's readiness to accept risk. The public sector has been criticized by the National Audit Office

Table 1 Relative significance of consortium attributes

<i>Attributes</i>	General rating		Private sector rating		Public sector rating	
	<i>RSIg</i>	<i>ranking</i>	<i>RSIpr</i>	<i>ranking</i>	<i>RSIpu</i>	<i>ranking</i>
Organizational nature and strength	0.738	1	0.753	2	0.723	1
Appointing a dedicated bid manager	0.865	1	0.864	1	0.867	1
Ability to understand what the public sector wants.	0.853	2	0.864	1	0.842	2
Open/frank communication during the negotiations.	0.841	3	0.832	4	0.850	3
Early involvement of other stakeholders	0.833	4	0.856	3	0.808	6
Ability of consortium members to work harmoniously.	0.820	5	0.824	6	0.817	5
Readiness to accept risk.	0.816	6	0.808	8	0.825	4
Ability to persevere during protracted negotiations.	0.812	7	0.816	7	0.808	6
Previous experience in PPP procurement.	0.792	8	0.848	5	0.733	10
Personal attributes of the champion within the consortium.	0.755	9	0.776	9	0.733	10
Willingness to commit to earlier negotiated terms.	0.751	10	0.752	11	0.750	8
Reputation enjoyed by the consortium.	0.702	11	0.720	12	0.683	13
PPP being a strategic business interest	0.686	12	0.704	13	0.667	14
Ability to tie equity into the project for a long period.	0.682	13	0.624	15	0.742	9
The multidisciplinary nature of consortium team.	0.669	14	0.704	13	0.633	15
Experience of previously working together as a team	0.665	15	0.776	9	0.550	19
Ability to obtain planning permission timeously.	0.657	16	0.624	15	0.692	12
Taking proactive role in initiating the project.	0.629	17	0.656	17	0.600	16
Current job holding of consortium members.	0.604	18	0.624	19	0.583	17
Experience of previously working with the public sector procurer.	0.596	19	0.632	18	0.558	18
Quality of technical proposal	0.723	2	0.776	1	0.669	2
Clarity of submissions and responses to queries	0.800	1	0.832	1	0.767	1
Robustness of outline technical proposal.	0.780	2	0.824	2	0.733	2
Provision of sound technical guarantee.	0.673	3	0.744	3	0.600	3
Innovative technical solutions.	0.641	4	0.704	4	0.575	4
Quality of the financial proposal	0.639	3	0.629	3	0.649	3
Levels of tariff/tolls proposed	0.845	1	0.824	1	0.867	1
Credibility of financiers	0.767	2	0.752	2	0.783	2
Level of exposure of the public sector organisation to financial risks	0.763	3	0.752	2	0.775	3
Level of financial guarantees provided/proposed by the consortium.	0.739	4	0.752	2	0.725	4
Payment mechanisms proposed	0.731	5	0.752	2	0.708	5
Level of government funding/guarantees required by the consortium.	0.641	6	0.648	6	0.633	6
Length of concession period proposed.	0.567	7	0.600	7	0.533	8
Level of financial returns to the public sector organisation.	0.551	8	0.544	8	0.558	7
High Equity/debt ratio so as to drive commitment.	0.465	9	0.448	10	0.483	9
Level of third party revenue to be generated.	0.453	10	0.480	9	0.425	10

Notes: *RSIg*=relative significance index – the general perspective; *RSIpr*=relative significance index – private sector perspective; *RSIpu*=relative significance index – public sector perspective.

(NAO) in some early projects for not demonstrating sufficient transfer of risk, and thus not obtaining sufficient value for money for the taxpayer. This has been uppermost in UK Treasury thinking since the outset of the initiative in 1992. As a key value for money test, the client will be keen to establish the consortium's acceptance of as many risks as possible early in the negotiations. Naturally, the consortium will be equally

keen not to expose themselves to too much risk. Experience has shown that the public sector has had to concede ground here in order to progress projects.

- *Consortium's previous experience in PPP procurement*: the private sector rates this considerably more important than public sector. Again, the public sector's lesser degree of concern is to be expected since they are negotiating primarily on

Table 2 Relative significance of public sector client attributes

<i>Attributes</i>	General rating		Private sector rating		Public sector rating	
	<i>RSIg</i>	<i>ranking</i>	<i>RSIpr</i>	<i>ranking</i>	<i>RSIpu</i>	<i>ranking</i>
Organizational Capabilities	0.736	2	0.749	2	0.724	2
Top-level commitment within the public sector organization	0.902	1	0.920	1	0.883	2
Level of collaboration and commitment among the public sector team	0.865	2	0.83	23	0.900	1
Open/frank and flexible communication during negotiations.	0.849	3	0.840	2	0.858	3
Level of bureaucracy in the decision making process.	0.747	4	0.760	5	0.733	4
Level of commitment of the organization to earlier negotiated terms.	0.747	4	0.776	4	0.717	6
Ability to accept and absorb risks	0.714	6	0.696	10	0.733	4
Ability to assist in land acquisition/planning permission	0.698	7	0.704	8	0.692	7
Attitude to cost e.g excessive desire to drive down cost	0.694	8	0.696	10	0.692	7
Ability to effectively sensitize public opinion on the project.	0.686	9	0.720	6	0.650	9
Ability to tap PPP knowledge and expertise elsewhere.	0.665	10	0.704	8	0.625	11
Existence of an established PPP/Private Finance Unit	0.637	11	0.712	7	0.558	12
Level of reputation enjoyed by the organization.	0.633	12	0.624	11	0.642	10
Technical capabilities	0.739	1	0.753	1	0.724	1
Ability to effectively establish the project parameters	0.829	1	0.808	1	0.850	1
Strong in-house expertise in infrastructure procurement	0.759	2	0.768	2	0.750	3
Levels of preparatory work	0.759	2	0.768	2	0.750	3
Ability to establish clear statements of the evaluation criteria	0.759	2	0.744	6	0.775	2
Previous experience in infrastructure procurement generally.	0.698	5	0.680	7	0.717	5
Making use of standard bidding documents.	0.690	6	0.752	4	0.625	6
Previous experience in PPP/private finance infrastructure procuremet	0.678	7	0.752	4	0.600	7
Financial capabilities	0.578	3	0.578	3	0.578	3
Capability to pay the shadow tolls/tariff proposed	0.767	1	0.768	1	0.767	1
Ability to receive financial support/guarantees from the central government.	0.747	2	0.752	2	0.742	2
Ability to offer tax concessions and/or flexible tax regimes.	0.465	3	0.512	3	0.417	5
Ability to raise funds through Bonds.	0.457	4	0.416	5	0.500	3
Ability to provide equity finance.	0.453	5	0.440	4	0.467	4

Note: *RSIg* = relative significance index – the general perspective; *RSIpr* = relative significance index – private sector perspective; *RSIpu* = relative significance index – public sector perspective.

levels of output service and pricing. In principle it is not their concern how this is brought about which is compatible with PPP thinking. The private sector, on the other hand, will be concerned as to the experience of all the various elements of the consortium since an experienced and able consortium team reduces risk involved in delivering the asset and the resulting services, and in meeting their contractual commitments efficiently and profitably.

- *Willingness to commit to earlier negotiated terms:* the public sector places significantly higher premium on the consortium willingness to commit to earlier negotiated terms. Clearly, they will be keener to tie the consortium down to contractual terms as early as possible. Price certainty and fixed budgets are traditionally important in public sector procurement, and as affordability limits are

established early in the PPP process, the client will value early commitment. The consortium will naturally be reluctant to commit to terms early on, when much of the design remains to be developed and the many unknowns mean there is greater exposure to risk.

- *Ability to tie equity into the project for a long period of time:* the public sector rates this attribute much higher than the private sector on the possible ground that willingness of the private sector consortium of not only providing equity but also with a commitment to tie it to the project for a long period is an indication of their level of commitment to the project. Equity represents the consortium members' own source of funding towards the project unlike the others that may be coming from sources like the banks and other financial institutions.

- *Experience of consortium previously working together as a team:* previous experience of PPP procurement within the consortium is of greater importance to the consortium itself than it is to the client, because it largely influences how successful they are in efficient and profitable delivery of service. Previous experience of teamwork is a well-acknowledged factor of successful construction project management. In contrast, the public sector client is focused on the service that the consortium team is ultimately contracting to deliver.
- *Ability to obtain planning permission timeously:* public sector attaches rather more importance to this attribute. It is a feature of many projects that the responsibility, and therefore the risk associated with obtaining outline planning permission is retained by the public sector. Although detailed planning permission for the design remains within the consortium this is perhaps more straightforward to secure since any major planning issues will have been resolved by this stage.

Public sector attributes

Discussions of the results on the public sector attributes have similarly been broken into two parts with one section focusing on the key attributes influencing the process and the other on the perceptual differences between the private and public sectors on these attributes.

Key public sector attributes

The groups of attributes relating to organizational capabilities and technical capabilities receive a similar rating, with the latter regarded as marginally more significant. The financial capabilities of the public sector are ranked lowest in influencing the procurement process. It seems this is a lesser concern given that public sector finances with public backing are regarded as sound and stable.

Within the *technical capabilities* group, the ability by the public sector to establish project parameters and prepare output specifications is most significant. Writing a comprehensive output specification of the services required from the project, rather than describing the asset, is one of the biggest differences for traditional public sector capital asset procurement. It is clear that sound project specification and scoping are the bedrock of successful negotiations. Project parameters that change and scope-creep will frustrate the progress of any negotiations. This is closely followed by strong in-house expertise, which is on the same wavelength as the consortium in reviewing their technical, financial and innovative approaches. If both parties have quite different perspectives on the project then there will clearly be problems.

Within *organizational capabilities*, commitment and the level of collaboration within the public sector team are regarded as the most influential attributes, perhaps reflecting concerns that large, multi-faceted clients can pose problems and frustrate progress. The level of bureaucracy in the decision making process is also rated highly. However, the trend, in the UK at least, appears to be increasing levels of regulation and standardization in contractual clauses and conditions, as the original 'deals not rules' concept did not work. A distinction has to be made, though, between best practice guidance and restrictive regulation. The *ability to accept and absorb risk* may have been expected to be rated higher given the major differences between public and private sector views on risk in early stages when private sector was expected to accept more or less all project risks. It seems more realistic attitudes prevail now. Perhaps rated surprisingly lowly, is the significance of being able to use experience and expertise of others in guiding the procurement process. It seems not much premium is placed on the use of knowledge or the experiences of others.

Perceptual differences between the public and private sectors on the public sector attributes

Regarding public sector client qualities, there was broad agreement on the ranking of importance for the various descriptive attributes. The public and private sector perspectives differ significantly for only a small number of attributes relating to the organizational and technical capabilities of the client (five out of 19 attributes). There was complete agreement on the relative importance of attributes relating to the financial capabilities of the client.

- *Ability to accept and absorb risks:* the public sector is considerably more sensitive about their own ability to accept their share of project risks. This may reflect the attention given by the Treasury to the whole issue of risk transfer away from the client – an important feature of the PPP ideology. The public sector clients have been criticized for not adequately demonstrating value for money through sufficient transfer of risk in a number of PPP projects. Certain design and operational risks will remain with the public sector. The private sector does not attach such significance to the client's ability to accept and absorb risks; they are far more concerned about the project management strength of the organization they will be negotiating with.
- *Ability to effectively sensitize public opinion on project:* it is not surprising that the private sector views this as a serious issue. Any misgivings expressed at a later stage by the general public and/or the end users of the services provided by the private sector

consortium could seriously affect their ability to provide the services in an efficient manner especially where disruptions occur. This will in turn affect their earning capabilities as the unitary payments are tied to the quality and volume of service provided. The funding institutions are also equally worried about the public acceptability of projects and would only invest in those projects where there is clear assurance that there will not be any disruptions.

- *Existence of established PPP unit:* it is not surprising that the private sector is more concerned to see an established PPP unit within the client organization. A PPP unit suggests an experienced and able client team that has the power and authority necessary for an effective negotiation process. The absence of such a unit may raise concerns about the public sector's project management strengths. This will be particularly pertinent where the functions of the public sector client are fragmented across a number of departments.
- *Ability to establish clear statements of evaluation criteria in bidding documents:* the public sector exhibits greater concern here. Accountability and transparency are key watchwords for any public sector organization involved in major infrastructure procurement. Clearly established evaluation criteria should therefore be seen as achieving these twin objectives since the end result should ultimately lead to the choice of an optimal bid that should result in value for money in the long run.
- *Previous experience in PPP procurement:* the private sector appears more concerned about the experience, and by implication, ability and effectiveness of the body with which they will be negotiating and making decisions. Experience provides expertise through learning, which then reflects in the quality of the discussions during the negotiations. With the private sector bidding costs being extremely high for PPP project procurement compared to those of the other traditional forms, it is natural that the bidders desire to work with a team that knows what it is about and is able to progress the process speedily. To the private sector, time is money and delays therefore represent lost opportunities.

Conclusions

The value of projects procured through PPP forms of procurement is growing internationally, as governments seek to involve private sector capital and methods of working in the provision of a wide range of infrastructure services. Of the problems that have become

apparent with this form of procurement, the delays and associated cost overruns at the bidding stage are severe for both public sector client and private sector bidder. The extent of cost and time overruns in the PPP pre-contract process are evident from the questionnaire results which show that nearly all projects suffered time overruns of varying severity, ranging from 11–166%. The associated cost overruns were mainly due to extended retention of consultant advisors by public and private sector parties. The relative importance of those attributes exhibited by the main parties to the negotiation affecting the efficiency and speed of the bidding process are revealed by multi-criteria analysis. Results for the bidding consortium organization revealed attributes relating to their nature and strength were top. This was closely followed by the quality of their technical proposals, and by the quality of their financial proposals. Results for the public sector client revealed groups of attributes relating to their organizational capabilities and to their technical capabilities received a similar rating. Attributes relating to their financial capabilities had a relatively lowly rating. Further analysis showed that there were some significant divergence in opinion between the public and private sector negotiating parties on what the attributes were affecting the speed and efficiency of the bidding process.

In addition to characteristics of the public and private sector parties to the negotiations, there are of course other factors influencing the process, namely the *external environment*, the elements of which include such things as the legal, political, social and technological factors, the organizational strategies and structures and culture, and characteristics of the *project* itself. We also recognize that a number of these attributes may be interlinked, however the aim is to draw attention to these individual attributes.

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Appendix

The significance of the consortium attributes refers to the extent to which these attributes influence the ability of the parties to successfully conclude the PPP/Private Finance procurement process from the OJEC Notice/Advert to the eventual signing of the contracts in a timely and cost effective manner.

Please tick the appropriate scale as follows:

Scale: insignificant = 1, slightly significant = 2, significant = 3, very significant = 4, extremely significant = 5

ID no:	Consortium attributes	Level of significance	1	2	3	4	5
CS	Nature and Strength						
cs1	Previous experience in PPP procurement.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cs6	Open/frank communication during the negotiations.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>