CRITICAL SUCCESS FACTORS IN PFI PROJECTS

Roy Morledge and Kevin Owen

Construction Procurement Research Unit, Dept of Surveying, The Nottingham Trent University, UK

The Private Finance Initiative (PFI) in the UK is increasingly being adopted as a procurement strategy to deliver infrastructure (and other privatised) projects in the UK. Privately financed projects allow governments to procure assets when needed (such as prisons, roads, hospitals) without burden to public capital expenditure. Projects procured in this way depend upon a long-term reliable income stream.

This paper argues a case that there is a need to identify the primary criteria which need to be achieved in each PFI project if the future of such an initiative is to be assured. The paper analyses existing interpretations of Critical Success Factors (CSFs) to assist in establishing a new definition addressing the CSFs for PFI projects.

The main factors considered to be crucial to PFI success were identified from a wide literature review. The opinion of clients, contractors, financiers, operators, and others involved in PFI was sought in relation to these factors through a pilot study. An analysis of the responses identified fourteen factors to be accepted as critical to the success of PFI projects. Following the pilot study these are submitted to be potential critical success factors for any PFI project and each CSF is defined.

Keywords: Critical success factor, PFI, private finance initiative.

INTRODUCTION

The Private Finance Initiative (PFI) was announced by Norman Lamont, when Chancellor of the Exchequer, in his autumn budget statement of November, 1992. Under the PFI private consortia are invited to bid for a concession to build and operate infrastructure (and other privatised) projects in return for annual service payments from the public client. This involves using private sector finance in the form of debt and/or equity in varying proportions. Long-term expenditure and risk are borne by the private sector and thus the burden on public investment into building and maintaining Britain's infrastructure and other public services is released. The PFI is a procurement tool not a panacea (CBI 1996). Ultimately, there is a need to know of the criteria which contribute to success or failure (CBI 1996; Private Finance Panel 1996; CIC 1998). This has been the focus of the study.

THE PRIVATE FINANCE INITIATIVE - A CONCEPT

The principles associated with the PFI are derived from the Build-Operate-Transfer (BOT) form of procurement, used widely around the world. The term was originally coined by the late Targut Ozal, former Prime Minister of Turkey, in 1984 (Tiong, Khim-Teck Yeo & McCarthy, 1992).

A Special-Purpose-Vehicle (SPV) or Project Company may be formed in order to bid for PFI projects (CIC 1998), this would typically consist of contractors, a service operator, financiers, and other specialist partners as required.

There are two fundamental characteristics of PFI:

- 1. There must be a genuine *transfer of risk* to the private sector. And this supports the overriding principle that:
- 2. A project must provide *Value-For-Money* to the taxpayer.

It is considered that the transfer of varying risks to the private sector, coupled with their greater efficiencies in management will outweigh the higher costs of private funding, resulting in greater value to the British public (Private Finance Panel 1995). This, in essence, is the ethos behind PFI.

A number of public and private sector organisations have suggested that in order to progress the PFI common key success factors must be identified from experience of PFI projects in the past. Therefore, the necessity to identify those Critical Success Factors which are peculiar to the successful realisation of these types of projects has been established.

WHAT ARE CRITICAL SUCCESS FACTORS (CSFS)?

The phrase, 'Critical Success Factors', was first used in the context of information systems and project management by Rockart (1982). His definition:

'those few key areas of activity in which favourable results are absolutely necessary for a particular manager to reach his or her own goals...those limited number of areas where "things must go right".'

Since then, a number of publications have cited the CSF methodology in research and the definitions, following that of Rockart, include:

Boynton & Zmud, 1984;

'those few things that must go well to ensure success for a manager or an organisation.'

'those managerial or enterprise areas that must be given special and continual attention to bring about high performance'

Sanvido, Grobler, Parfitt, Guvenis & Coyle, 1992;

'those factors predicting success on projects'

'events or circumstances that require the special attention of managers.'

Tiong et al, 1992;

'those characteristics...that when properly sustained and managed have a significant impact [upon] winning...Those things that must be given special and continued attention and must go well to increase the...chances of [success].'

Smith and Walker, 1994;

'those factors in which success is necessary in order that each of the major project participants in a...project has the maximum chance of achieving the goals.'

Of particular interest is the pattern formed by each of the above definitions, there are 3 clear sections to each quote. This can be seen more easily with an example. In Rockart's quote the three sections of the definition are:

• Part a. 'those few key areas'

- Part b. 'favourable results are absolutely necessary'
- Part c. 'to reach his or her own goals'

Using this method to segregate and analyse the identified quotations a new definition of a Critical Success Factor particular to PFI projects is proposed as follows;

'those few factors which, when judiciously applied to a PFI scenario, have led to, and/or will actively contribute to, a profitable conclusion for one or more of the parties involved.' (Owen 1997)

This definition has been used in the determination of the CSFs throughout the research underpinning this paper.

CRITICAL SUCCESS FACTORS AND PFI

Following a thorough literature search 34 factors critical to the success of PFI projects were identified. These factors were then assembled into a questionnaire which was distributed to forty-five organisations, selected for their known involvement in PFI.

In each case, a respondent from the organisation was targeted for their seniority and their direct involvement in PFI. For example: business development directors, financial directors, and chief executives were contacted by phone to ensure their willingness to participate in the survey; this would result in a greater response rate.

Questionnaires were distributed to: 10 Clients; 10 Contractors (the top 10 by turnover); 10 Financiers; 10 Operators; and 5 to a Miscellaneous group which consisted of three professional organisations and two journals to provide an alternate view of those indirectly involved in PFI. It was hoped that the response would contribute to a wider feedback in relation to the 34 proposed factors without bias towards a particular group.

The questionnaire requested participants to identify, from a list, those factors which they agreed were critical in PFI projects.

In the distribution of this questionnaire the limited population of respondents who were actively involved with PFI projects was acknowledged.

There was an above average response (47%). The following responses from each sector were received by April, 1997 and were as follows:

Table 1: Survey respondents

	Clients	Contractors	Financiers	Operators	Miscellaneous	Total
No.	5	5	6	2	3	21
%	50	50	60	20	60	47

This response, however, was felt to be disappointing considering that contacts had been made prior to the survey in order to request a response in the light of the limited population. The poor response from operators was particularly disappointing due to the length and nature of involvement which they will have in a PFI contract over some 20-30 years' contract life.

Results and Analyses

Those factors where there was at least 80% agreement of the importance of a particular factor across the responding sample were considered to be relevant Critical Success Factors. There were 14 factors which fell into this category, namely:

- 1. A scheme with a perceived need identified by a well-defined purpose and objective.
- 2. Early identification and selection of a viable project by the consortium.
- 3. Integration of design with facilities management to encourage the operator to become directly involved in the design process.
- 4. Adequate and accurate risk assessment by all parties involved, with the responsibility of managing each risk placed with the party most able to control them.
- 5. Detailed guidelines, based on past experience, to explain the risks accepted by each party.
- 6. Reward allocated in direct proportion to the risks accepted.
- 7. An efficient system for controlling changes and resolving disputes.
- 8. A client with the sufficient financial strength and ability to pay for all services being provided for the duration of the concession.
- 9. A multi-disciplinary team with an experienced, skilled leader of the consortium.
- 10. An unerring commitment from public sector management and civil servants with an appreciation for the private sector.
- 11. Good communication between all team members through established links.
- 12. Objectives of all parties stated and agreed before a contract is signed.
- 13. A maximum of 2-4 bidders short-listed to prepare a full tender.
- 14. Reimbursement of unsuccessful bidders, especially if, after adequate bids have been accepted, the PFI option is withdrawn.

Each of these factors for success is now briefly considered;

A scheme with a perceived need identified by a well-defined purpose and objective.

It is in the interest of government that *any* project put out to tender is viewed by the public as contributory to a worthy cause. The taxpayer must see a genuine need for a scheme and that an asset is to be constructed and operated for the public good, and not in the interests of a politically hidden agenda.

Therefore PFI requires a method for demonstrating a genuine public need for each project. This has been achieved by adequately defining the purpose and objective to a scheme (Smith & Ogden 1996).

Early identification and selection of a viable project by the consortium.

The public sector initiator must provide a viable project for consortia to consider and from these options the private sector's task is to select a project which is also viable to them, in the short-term and long-term. It is essential that consortia match their skills, experience and needs with the client's financial and legal status, and a project's technical requirements, when selecting a scheme for bidding.

Integrate design with the service providers to encourage the operator to become directly involved in the design process.

The public sector communicate their requirements for the project via a service *output* specification. This is comprised of performance criteria which make up the client's specification and must be met in the delivery of the service. Therefore communication of clients' needs now focus on *what* is to be delivered and not *how* the private sector should deliver it. The service output specification is often complex but can be translated and executed more easily by integrating the facilities managers and operators of the private sector consortium within the design process (The Private Finance Panel 1995). This integration encourages innovative solutions and enhances value or money as identified in the DCMF prisons' case studies (The Private Finance Panel & HMPS 1996).

Adequate and accurate risk assessment by all parties involved, with the responsibility of managing each risk placed with the party most able to control them.

Risk transfer is fundamental to value for money in PFI. Experience has shown that an acceptable balance of risks retained by each party is vital in securing project finance for the scheme (Davis, Langdon & Everest 1996). Therefore, accurate identification and assessment of all possible risks must be made, and quantified where possible. This is often a substantial task to undertake; Hambros and Price Waterhouse, in advising the Department of Transport at the time, identified almost 300 separate risks for a DBFO road project (New Civil Engineer 1994).

Detailed guidelines, based on past experience, to identify the optimum level of risks to be accepted by each party.

The previous Government suggested that *optimal* risk transfer is preferable and that as a general rule, each risk must be allocated to whoever is most able to manage it; thus maximising value for money (Private Finance Panel 1995). The complexities of risk transfer have provoked disagreement as to the best division of risk (Mattheou 1996). Transferring risk to the private sector incurs a cost; therefore transfer of all risks would be to the detriment of the value for money principle. Risk transfer is project-specific and the proportion of risks allocated will generally be unique to each scheme. However, since the inception of PFI, risk transfer has remained an area of uncertainty (Hancock 1995). This needs to be addressed further.

Reward allocated in direct proportion to the risks accepted.

The private sector must be adequately rewarded for the risks they are to manage - a complement to critical success factor no. 4 above. Government need to ensure that risk and reward complement each other and must satisfy both the public and private sector. The result should also be satisfactory to the taxpayer. Conclusively, there needs to be a win/win situation and, therefore, risk and reward must be allocated in the correct proportions (Sanvido et al 1992).

An efficient system for controlling changes and resolving disputes.

There is a private sector view that current measures for resolving disputes will not be satisfactory for PFI (New Civil Engineer 1994) and that a more robust system is required (Davis, Langdon & Everest 1996). Research has shown that removing internal conflicts within the consortium is essential to privatised projects (Tiong et al 1992) and in practice internal systems have been established by some PFI consortia.

A client with the sufficient financial strength and ability to pay for all services being provided for the duration of the concession.

Affordability, an issue which has become increasingly more prominent in PFI health projects (Building 1997a), has prevented a number of schemes from reaching financial close as the public sector client is unable to meet the service charge for the duration of the contract. Some project financiers are concerned whether the client, especially in the case of NHS trusts, can survive a PFI contract financially. It is, therefore, fundamentally important to ensure that any proposal can be paid for by the client over the life of the concession.

A multi-disciplinary team with an experienced, skilled leader of the consortium.

Several authors (Sanvido et al 1992, Tiong et al 1992, Smith & Walker 1994) have identified an experienced and cohesive, multi-disciplinary team as a fundamental requirement. The *team* consists of both public and private sector personnel, and their respective advisers. The need for a specialised team is also evident in PFI; a private consortium requires a leader with foresight and good judgment to enter into the new business sector of PFI, and he (or she) will need skill and experience to ensure the consortium's ventures are successful.

An unerring commitment from public sector management and civil servants with an appreciation for the private sector.

The public sector must complement the private sector with expertise and commitment. An *Attitude Survey* in 1994 (New Civil Engineer 1994) concluded that 'more business-orientated civil servants' were required, and this was duly answered by a Government programme to train up to 10,000 civil servants in 'how to do PFI projects' (The Private Finance Panel 1996). However, the CBI (1996) questioned this programme for teaching only the 'basics of PFI'; what they suggest is needed, is 'extra, intensive and practical training'. Additionally, the 1994 Attitude Survey found that 45% of their poll agreed that there was a lack of commitment from the public sector and called for a more consistent Government policy on PFI. Concerns have continually been raised on this subject, especially in the health sector (Davis, Langdon & Everest 1996).

Good communication between all team members through established links.

Once the *team* with the necessary qualities has been formed there are further criteria it must address. The *team* will almost certainly consist of a huge network of people in different organisations, all of whom must communicate effectively with each other to ensure success of their common goal. This requires good working relationships within the team, and ideally, trust of and respect for each other.

Objectives of all parties stated and agreed before a contract is signed.

Between the negotiating parties of PFI schemes there remains a 'culture-clash and a lack of understanding' of one another's procedures (Chevin 1996). This is proving to be a major obstacle to signing contracts, and indicates that a certain amount of mutual distrust still exists between the public and private sectors. The solution, in other public/private ventures, has been to promote the *team* approach, to resolve potential differences immediately (Bedelian 1996) and for all parties to openly declare their fundamental objectives (Smith & Ogden 1996) which will lead to the wholesale acceptance of a common goal; a 'win/win' solution. Several writers (Tiong et al 1992, Smith & Walker 1994) have concluded that the agreement of mutual and individual objectives and accepting a common goal are critical to success.

A maximum of 2-4 bidders short-listed to prepare a full tender.

Too high a number of bidders are preparing full and detailed tenders on projects and thus raising bid prices to cover the expense of failed proposals (Building 1996). Characteristic to PFI are the high costs of preparing a bid regardless of project size (Barrie 1995) and coupled with this is the low probability of being successfully chosen as a preferred bidder. It is vital that the number of bidders invited to provide a full tender is reduced. This would not only lower the total costs of bidding, but also raise the chances of any bidder winning a project in relation to the sum spent on tendering. While EC procurement rules state a minimum of 3 bids are required for further negotiations, others (CBI 1996; Private Finance Panel 1995) have supported a figure of 3-4 bidders as a maximum invited to produce a full tender.

Reimbursement of unsuccessful bidders, especially if, after adequate bids have been accepted, the PFI option is withdrawn.

There are opposing views on whether unsuccessful bidders should have their tendering costs reimbursed. There are views that unsuccessful consortia should be awarded up to three-quarters of their bidding costs, whereas opponents argue that if fees were reimbursed bidders would compete for every PFI project on offer and profit from reimbursed tendering costs (Barrie 1997). A more rational policy would be that suggested by the (now defunct) Private Finance Panel (1996). They proposed that costs should be reimbursed only 'if, after an Invitation To Negotiate has been issued, the public sector aborts for reasons beyond the bidders' control'. The CBI (1996) agree, suggesting reimbursement 'if no PFI contract is awarded'. Similarly, many survey respondents also indicated this *conditional* reimbursement of costs.

The Bates' Review

The literature review and questionnaire design for the pilot survey was completed by the end of April, 1997 (further literature reviews were subsequently carried out to continue and update survey findings).

Since the questionnaires were returned, there has been a General Election in the UK and a new Labour administration have taken power. Following the election of the new Government a thorough review of the PFI was carried out under the patronage of Sir Malcolm Bates and the report following Bates' review made 29 recommendations to improve the PFI, 7 of which have very similar characteristics to 9 of the 14 CSFs submitted in this paper.

CSFs	Bates' Recommendations		
1	Introduction		
2	Introduction;4;16;22		
4	4		
5	4		
6	4		
8	16;17;22		
10	Introduction;24;27		
13	29(iii)		
14	29(vi)		

Bates suggests that Government should reinforce its support for 'operationally necessary and financially viable' projects (CSF 1 and 2) with particular regard to problems of affordability (CSF 2).

Similarly, HM Treasury should, Bates suggests, deliver some assurance that Government departments and other PFI *clients* are able and willing to commit expenditure for the duration of the contract (CSF 8), and he calls for an extension of legislation to overcome the *ultra vires* issue in local authorities' projects (CSF 2).

Bates also identifies the need for Government to reiterate its absolute commitment to PFI and calls for a 're-focused' programme of training of civil servants with collaboration from the CBI (CSF 10). Furthermore, to develop public sector understanding of the private sector 'frequent and active liaison' between the two should be encouraged (CSF 10).

Bates' final recommendation in the review is, coincidentally, identical to the last two CSFs proposed in this paper. Suggestions are made to ensure projects are more cost-effective; the first is to introduce a limit on the number of bidders, compulsorily, to a maximum of four (CSF 13), and secondly to reimburse bidders' costs when the PFI option is withdrawn (CSF 14).

As perhaps expected, those recommendations from Bates which have similarities to the proposed CSFs above refer generally to the public sector's contributions. Those CSFs not covered by Bates' review make reference to the design, contract or the public/private team. Interestingly, there were three factors not identified by the survey respondents as critical which Bates made reference to. These refer to minimum length of contract, introduction of a 'project-broker' role (i.e. the Treasury Taskforce), and model contract clauses (which, perhaps surprisingly, did not qualify as a CSF).

It is interesting to note that Bates' findings from his review of the Private Finance Initiative was perhaps unsurprising given that the similarities between the proposed CSFs and his recommendations reflect much of what the parties involved in PFI have been concerned about for some time.

CONCLUSION

The pilot survey found a consensus of opinion thereby identifying 14 factors of success which, when judiciously applied to a PFI project, will actively contribute to a profitable conclusion for one or more of the parties involved. These are considered to be the 'Critical Success Factors of PFI' from the results of the pilot survey.

There are limitations, however, to the use of the CSF methodology. Although the factors have been identified there is no ranking, nor weighting, of the factors which would indicate a hierarchy of individual and collective importance - the focus of research ongoing. The CSF methodology tends to present the ideal situation and not all the factors will be found in one project. However, in our endeavour to seek continuous improvement the CSF methodology provides a good basis to identify possible solutions.

Furthermore, the CSFs which result from the survey have been determined by an overall agreement between all respondents from public and private organisations. There may well be differing views among individual types of organisation, and among those involved in different types of projects (e.g. hospitals, roads, prisons) as to the agreement of the CSFs and their order of importance. This is the focus of current/further research.

This paper has, however, identified 14 Critical Success Factors of PFI which can be used by clients, contractors, financiers and operators to assist various processes in procuring PFI projects towards a successful conclusion. It does not suggest that a

project will succeed automatically for all the parties involved as a result of addressing all the issues, but that the project will be more inclined to fail if these factors are ignored.

REFERENCES

- Barrie, G. (1995). 'Contractors on war-path over PFI tenders'. Building. 21 April 1995. p 11.
- Barrie, G. (1997). 'Ross Goobey plans to get PFI moving'. Building. 7 June 1997. pp 18-19.
- Bedelian, H. M. (1996). 'Successful major projects in a changing industry'.

 Proceedings of the ICE Civil Engineering. August. (114). pp 117-123.
- Boynton, A. C. & Zmud, R. (1984). 'An assessment of Critical Success Factors'. Sloan Management Review. Summer. pp 17-27.
- Building (1996). 'MPs urge Treasury to weed out unsuitable PFI schemes'. 19 April 1996. p
- Building (1997). 'Mission inhospitable: Untie the PFI week 1'. 31 January 1997. pp 17-21.
- CBI (1996). 'Private skills in public service tuning the PFI'. July. Confederation of British Industry.
- Chevin, D. (1996). 'Contractors act as PFI hits critical list'. Building. 4 October 1996. pp 18-19.
- CIC (1998) 'Constructors' Key Guide to PFI'. Construction Industry Council. Thomas Telford. London.
- Daniel, D. R. (1961) 'Management Information Crisis'. Harvard Business Review. September-October. pp 111-121.
- Davis, Langdon & Everest (1996). 'Overview and cost model: PFI hospitals'. Building Procurement, November. pp 13-21.
- Hancock, Sir David (1995). 'The Private Finance Initiative'. Proceedings of ICE Municipal Engineer. Vol. 109. December. pp 278-283.
- Mattheou, M. (1996). 'Property Law Newsletter'. December 1996.
- (http://www.lovellwhitedurrant.com/property/dec1996/prop_08.htm).
- New Civil Engineer (1994). NCE/NB PFI Supplement, July 1994.
- Owen, K. J. (1997). 'Critical Success Factors of PFI'. May 1997. Unpublished dissertation.
- Private Finance Panel & HMPS (1996) 'Report on the Procurement of Custodial Services for the DCMF Prisons at Bridgend and Fazakerley'. April 1996. Published jointly by HM Prison Service and the Private Finance Panel.
- Private Finance Panel (1995). 'Private Opportunity, Public Benefit Progressing the Private Finance Initiative'. November. Published jointly by HM Treasury and the Private Finance Panel.
- Private Finance Panel (1996). 'Private Finance Initiative Guidelines for smoothing the procurement process'. April. Published jointly by HM Treasury and the Private Finance Panel.

- Rockart J. F. (1982). 'The changing role of the information systems executive: A Critical Success Factors perspective'. Sloan Management Review. Fall, 24(1). pp 3-13.
- Sanvido, V., Grobler, F., Parfitt, K., Guvenis, M. & Coyle, M. (1992). 'Critical Success Factors for Construction Projects'. Journal of Construction Engineering and Management. Vol. 118, No. 1. March. pp 94-111.
- Smith, A. J. & Walker, C. T. (1994). 'BOT: Critical Factors for Success'. A paper submitted at the "Investment Strategies and Management of Construction" Conference. September 20-24, 1994. Brijuni, Croatia. pp 247-254.
- Smith, G. & Ogden, D. (1996). 'Partnering in practice'. Highways. December. pp 24 25.
- Tiong, R. L. K., Khim-Teck, Yeo & McCarthy, S. C. (1992). 'Critical Success Factors in Winning BOT Contracts'. Journal of Construction Engineering and Management. 118 (2) June. 217-228.