

PFI HOSPITALS IN THE UK: MEASURING THE MEDICAL PRACTITIONERS LEVEL OF SATISFACTION

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The clamour for the delivery of improved public services and infrastructure has led to an increase in public/private partnership as a means of meeting various governments' goals of providing quality public services to its ever-increasing population. The UK Government over the years has also embraced these emerging partnerships between the public and private sector as a means to provide public services. In recent years it has adopted the Private Finance Initiative (PFI) as one of the major vehicle for delivering and improving various public services and facilities. One major sector in which the use of PFI has greatly been used in the effort to meeting increasing demand of quality public services is the health sector. The success of using private finance to replace or enhance buildings and equipments in the health sector lies not only in its achieving value for money to the Government but also in meeting end users' requirements. The aim of this study therefore, is to establish the level of satisfaction of medical personnel as end users in selected hospital schemes delivered using PFI procurement.

Keywords: importance index, key performance indicators, level of satisfaction, Private Finance Initiative, severity index.

INTRODUCTION

One of the methods of public private partnership that the Department of Health uses for the financing of its projects is the Private Finance Initiative (PFI).

The Private Finance Initiative (PFI) involves the creation of a form of partnership between the public and private sector for the delivery of public services/infrastructure with a view to enhancing project delivery, performance and operation of such services. The Healthcare Financial Management Association (2002) states that there will increasingly be a role for private sector investment to assist in the delivery of the modernisation agenda which is being clamoured for.

With the clamour for modernisation of the NHS in mind, It becomes imperative to evaluate the performance of PFI hospital projects to assess if its meeting its objectives from the perspective of end users.

The research reported in this paper provides a methodology for evaluating the performance of PFI projects in the medical practitioners' perspective. It adopts the use of the importance index and severity index in assessing performance from the medical practitioners' perspective. It commences with an in-depth literature review of the use

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of Private Finance Initiative in the National Health Scheme (NHS) and methods of assessing end users' satisfaction. Postal questionnaires and online survey to general medical practitioners have been used to establish the key performance indicators (KPIs) that must be used to assess the performance of hospital projects. Having identified the KPIs, respondents were asked to rank a list of 20 KPIs that could be used to assess the performance of PFI hospitals and the top ten are then used to evaluate the project performance of a recently completed PFI hospital project.

The inferences drawn from this study could be used by construction professionals to assess the success of hospital projects from end users perspective.

PFI in the health service

Though the responsibility of providing quality care to patients and persons accessing public health care facilities lies with the NHS, the need for capital investment in the delivery of these services have given rise to the need for involvement of private sector partners in the provision of these facilities. (Holmes et al 2006)

According to the Association of Chartered Certified Accountants (ACCA), “the PFI in health is about ensuring that facilities in which they work are as modern, efficient and cost effective as possible by placing responsibility for their provision to specialist managers who are experts at providing them. The NHS can then concentrate upon the provision of health care”.

Holmes et al (2006) states that the intention of the PFI being introduced in the procurement of public health care services as identified by the NHS, Executive (1995) includes amongst others, “to improve the quality of services by utilising a wider range of potential providers and learning good ideas and better techniques; to increase the cost-effectiveness through, competition, sharing of overheads and taking advantage of the private sector’s skills; and to reduce the risk to the NHS by sharing and the use of incentivised contracts”.

In order to meet the intentions described above, the public sector has had to rely on the private sector for the much needed expertise and capital necessary for the change sweeping across the NHS.

One of the objectives amongst others as stated by The HM Treasury (PPPs: The Government’s Approach (2000)) on why the UK Government developed PPP is to allow stakeholders to receive a fair share of the benefits of the PPP. This includes customers and users of the services being provided, the taxpayer and the employees at every level of the organisation.

Having identified the above as one of its objectives, it is therefore vital that end users play a crucial role in determining the success or failure of PFI/PPP projects.

Benefits of PFI in the NHS

The use of PFI in the NHS ensures improved delivery of projects with respect to time, cost, quality and improved maintenance of public infrastructure (Dixon et al 2005).

The HM Treasury publication (2003) state that PFI in the NHS also ensures that desired service standards are maintained since the private sector’s capital and profits are at risk and there is a strong incentive for the private sector to maintain a high and reliable service standard throughout the life of the contract. It is also believed that due to the fact that the public sector pays only for the service it has contracted for, at the price it has contracted for, and only when that service is available public funds will be

used more efficiently. Also the public sector is able to tap into the resources, experience and innovations of the private sector to meet its requirements in service delivery.

Identifying stakeholders of a hospital project

Every project is unique in its own way and has different goals to meet in order to satisfy all stakeholders of the project. In assessing the overall performance of any project, it is important to take into account the views of all parties who have a stake in the project. Shapiro J. et al (2003), reveals that the various stakeholders who are involved in a hospital project include; the NHS trust, HM treasury, commercial firms, medical practitioners, medical support staff, patients, the public (both working and dependent) etc. This list of identified key stakeholders in a hospital project is not exhaustive as stakeholders may vary depending on the complexity of the project.

End users are critical to the success of any project because they are the final users who access these facilities on a daily basis. Though it can be argued that users satisfaction should be regarded as one of the most important measures of assessing the success/failure of hospital projects, it is noticed however, that over the years reports have centred on assessing the success of project based on issues such as price certainty, quality of design, cost overruns, post contract evaluations, value for money, project time delivery etc. Though these requirements are necessary, they however focus more on the needs of the government and hospital management in the delivery of these projects and less on the end users.

With the change in Government procurement strategy for the NHS and with the growing use of PFI for delivering hospital projects in the UK, it becomes imperative that adequate evaluation should be carried out to determine if the objectives of using PFI in the delivery of hospital projects are meeting its goals from the perspective of end users, especially the medical practitioners who are often considered as core end users (other categories are the patients and the other hospital support staff). The paper focuses on medical practitioners' level of satisfaction.

METHOD OF ASSESSING PROJECT PERFORMANCE

Project performance can be assessed/evaluated in 3 ways as identified by Bordass et al (2006) and these are; Post Project Reviews (PPRs), Post Occupancy Evaluation (POEs) and Post Implementation Reviews (PIRs). It should be noted however that these methods are used in evaluating project performance based on what criteria is being assessed and come into play at different stages during a project life.

It is worth mentioning that for the purpose of this paper the authors employed Post Occupancy Evaluations (POEs) as a tool for assessing end users satisfaction in hospitals.

Preiser (1995) defines POE as “the process of systematically comparing actual building performance, i.e. performance measures, with explicitly stated performance criteria”. The focus of POEs is on identifying if the objectives of a project are meeting end users satisfaction in terms of key indicators used to assess the performance of the building.

For the purpose of this paper, POE is defined as a system of feedback by which end users opinions on their satisfaction of health care facilities/buildings are assessed and evaluated to determine how well these buildings meet end users needs/expectations.

Benefits/Drawbacks of Post Occupancy Evaluation (POE)

Zimmerman (2001) states that, “the overarching benefit from conducting POEs is the provision of valuable information to support the goal of continuous improvement”. POEs also helps in identifying the performance of a building with respect to meeting the needs of its occupants and improving occupants’ awareness of their surrounding while also providing insight and/or hindsight into the consequences of decisions that are made during and after the delivery of a project (Source: The Association of University Directors of Estate AUDE (2006).

One of the drawbacks of POEs is the fact that POEs is sometimes misinterpreted as a fault-finding process to shift and place the blame for problems within a built facility on key project team members. (www.fmlink.com [Accessed 25th August 2007]). Another issue affecting the POEs is that within a project group, different parties are involved and each party “has a different incentive to optimise the aspect of the building or the construction process that they influence” and such a situation gives raise to the issues of who pays and who is to benefit from the efforts put in to POEs. (Zimmerman et al 2001).

Identifying Key Performance Indicators (KPIs) for hospital buildings

According to Cole (2007), “design quality for hospitals has to meet the needs of 6 constituencies which are: the patients; Staffs; Hospital management; Facilities management, the wider health system; and the general public”.

Chan et al (2004) has defined KPIs as key requirements that focus on critical aspects of output or outcomes. They help identify what stakeholders view as being important in meeting their needs in the overall delivery of a building project. Chan et al (2004) also states that in order for performance measurement to be effective, the measure or indicators must be accepted, effective, feasible and understood.

RESEARCH METHODOLOGY

In order to identify KPIs which are important to medical practitioners in assessing the performance of hospital projects, the authors conducted a qualitative survey of the views of various medical practitioners. The authors sent out surveys to 70 medical practitioners both in PFI and non-PFI hospitals and there were 50 returns, which gives a response ratio of 71%. Respondents were asked to rate various KPIs as identified by the authors on a scale from 1 (irrelevant) to 6 (crucial), for use in assessing the performance of hospital projects. Respondents were also given the opportunity to add to the list of KPIs presented.

The ‘Importance Index’ was used to rank the KPIs using the formula below, which was adapted from Lim and Alum (2005):

$$IM = \frac{6n_1 + 5n_2 + 4n_3 + 3n_4 + 2n_5 + n_6}{6(n_1 + n_2 + n_3 + n_4 + n_5 + n_6)}$$

Where:

n1 = number of respondents who answered ‘Irrelevant’

n2 = number of respondents who answered ‘Relevant’

n3 = number of respondents who answered ‘Important’

n4 = number of respondents who answered ‘Very Important’

n5 = number of respondents who answered 'Essential'

n6 = number of respondents who answered 'Crucial'

(Source: adapted)

The importance index (IM) is useful for ranking questions in order of importance where respondents are being asked to give a rating from, say, 1-6 (as is the case in the research questionnaire) of the importance of certain issues. The IM helps determine the importance level of each issue in question and ranks them accordingly.

The twenty KPIs identified in the survey were ranked from 1 to 20 on the basis of the scores obtained from the importance indices and this paper deals with the top 10 ranked KPIs.

It should be noted however, that the study in ranking the KPIs on the scale 1-20 does not invariably suggest that issues ranked say, 20th on the scale should be disregarded in the delivery of a hospital project or in assessing its performance from end users perspective. The ranking is done merely to give value to a purely subjective issue. Every KPI identified in its own standing is important for assessing the performance of a hospital project.

The authors also classified the 20 KPIs into four (4) categories which are:

- I - Design aspect: This includes; aesthetics, layout of departments, internal decorations, landscaping and flexibility of design.
- II - Functional aspect: This includes; space allocation for a function, user space allocation, functional suitability, space allocation matched to operational needs, physical condition of building, ease of maintenance of building and safety requirements of building.
- III - Accessibility aspect: This includes; access to the facility by the public, parking facilities, proper access for the physically challenged, proper signage within the facility and relationship between the allocated spaces within the facility; and
- IV - Facilities aspect: This includes; availability of training and conferencing rooms, availability of improved facilities for teaching and research activities, availability of recreational facilities, provision of accommodation within the built facility, provision of adequate medical equipments, catering facilities and waste management.

Findings based on top 10 ranked KPIs.

According to the survey returns based on the top ten (10) ranked KPIs, issues that deal with the design aspect of a project ranked amongst the top three (3) issues which medical practitioners viewed as being crucial for assessing a hospital project's performance (i.e. landscaping, aesthetics and internal decoration). This was closely followed by functional aspect issues which were ranked between fourth (4th) to seventh (7th) on the importance index scale (i.e. availability of recreational facilities, availability of improved facilities for teaching/research activities, provision of accommodation with the built facility and availability of training/conferencing rooms). Flexibility of design to adapt to changes in facility requirements which is a design issue was ranked 8th while the functional issues of user space allocation and ease of maintenance of the facility were ranked 9th and 10th respectively.

ASSESSING THE PERFORMANCE OF A PFI HOSPITAL

In order to meet the objective of the study (i.e. to assess medical practitioners' level of satisfaction of PFI Hospital), the top 10 ranked KPIs were applied to a recently completed major PFI hospital project at Brighton) that was commissioned in June 2007. Questionnaires were sent out to 17 medical practitioners in the hospital to assess their hospital performance with respect to the top 10 KPIs. Respondents were asked in this instance to rate the performance of the hospital (based on the top 10 ranked KPIs) on a scale of zero (appalling) to 5 (excellent) and the authors used the "severity index" to determine users satisfaction levels using the severity index formula;

$$\text{Severity Index (SI)} = \sum R_w W / R_t$$

Where: R_w = number of respondents, W = weighting or points assigned, R_t = Total number of responses obtained for the variable. (adapted from Akerele & Gidado 2003)

The scale on how issues were rated using the SI is given below:

SI < 4.0 implies "Not satisfied" with the issue in question

SI = 4.1~4.4 implies "Acceptable" with the issue in question

SI = 4.5 ~ 4.8 implies "Satisfied" with the issue in question

SI > 4.9 implies "Very satisfied" with the issue in question

The use of the Severity Index in analysing satisfaction with the performance of the PFI hospital reveals medical practitioners' level of satisfaction with regards to the hospital in question. The Severity Index on the other hand is useful in ranking the severity of a particular issue. The compiled results are shown in the Table 1 below:

Table 1

Category	IM	KPIs	Severity Index	Ranking	Rating Scale
II	6th	Provision of accommodation within the built facility	5.4	1	Very satisfied
I	2nd	Aesthetics of the facility	4.8	2	Satisfied
II	10th	Ease of maintenance of the building	4.6	3	Satisfied
II	5th	Availability of improved facility for teaching & research activities	4.6	3	Satisfied
II	7th	Availability of training/conferencing rooms	4.4	4	Acceptable
I	3rd	Internal decoration	4.2	5	Acceptable
II	4th	Availability of recreational facility	4.1	6	Acceptable
II	9th	User allocation i.e. amt. of space allocated per user	4.1	6	Acceptable
I	8th	Flexibility of design to adapt to changes in facility requirements	3.9	7	Not satisfied
I	1st	Landscaping around the facility	3.6	8	Not satisfied

It is important to note that the 'Importance index' and 'Severity Index' have also been used successfully in other researches such as Lim and Alum (1995) and Abdul Kadir et al (2005).

Findings.

Based on the application of the KPIs on the new PFI project, the results suggest that the medical practitioners were "very satisfied" with the issue of "provision of

accommodation within the hospital complex. They were also "satisfied" with issues to do with aesthetics, ease of maintenance of the built facility and availability of improved facilities for teaching and research. However, in the areas of 'flexibility of design of the facility to adapt to changes in facility requirement' and 'landscaping around the facility', the medical practitioners were 'not satisfied'.

The issues that medical practitioners seem to identify as core categories are in the areas of design (I) and functional aspects (II). None of the accessibility (III) and facilities (IV) aspects has been identified among the top 10 KPI factors. It is also important that landscaping is identified as the top most important KPI but seems not to have been given serious or appropriate consideration by the design team because the practitioners have expressed dissatisfaction with the outcome.

CONCLUSION

The use of the PFI in the health care sector is aimed at improving already existing NHS hospital buildings and infrastructure and providing new hospitals that meet the ever-changing needs of users of these facilities. Though as earlier highlighted, various researches have looked at the issue of the performance of PFI project purely from the perspective of other stake holders in hospital project with little being done to assess performance from the perspective of the medical practitioners as final users of these facilities. The authors through this research have however been able to contribute to the current thinking on the operational success of PFI hospitals by taking a critical look at the issue from the perspective of end users.

The study has also been able to identify and rank in order of importance KPIs that are crucial in assessing a hospital performance. The importance index and severity index has also been used successfully in the paper to measure levels of satisfaction of medical practitioners with a PFI project and the study can be further applied to PFI hospital scheme in general to get a feedback from end users as to their rating of various facilities provided using the PFI.

The research seems to suggest that medical practitioners are increasingly satisfied with the delivery of PFI hospital projects. It must however be stated that though end users views may usually be sort before, during and after completion of the project, this should not be done merely for the sake of it. There is the need to implement views of end users as reasonably practicable in the delivery of hospital project. There is also the need to strike a balance between the views of various stakeholders in a hospital project in order to ensure that the right balance is achieved with regards to the different perspectives which may arise during the project.

The identified KPIs can be used for the assessment of other PFI hospital projects as this would help give a wide view to the issue of the operational success of various PFI hospital project which have been embarked upon.

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