

MANAGEMENT CONTRACTOR – AT WHAT STAGE SHOULD IT BE APPOINTED?

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Abstract

In selecting a management contractor, tenders are invited and they are usually submitted based on the "base cost" of a project. This base cost is roughly estimated by the designer (or consulting firm) before tendering, so tenderers can submit tenders by referencing the base cost. However, by doing so, the management contractor, who usually helps giving design input/advice to the designer, may sometimes be too late to become a part of the project team. Hence, a solution must be found which will enable the owner to select a management contractor as early as possible in the project life. A total of ten interviews were conducted to solicit the possible solutions from ten senior construction professionals in Hong Kong. The result shows that the two stage selective tendering is the most suitable method to appoint a management contractor in situations with unknown base cost. In addition, the interviewees in general agreed that a management contractor should be involved early in the design stage, but most of them felt that it is unnecessary to appoint a management contractor prior to the appointment of a designer.

Keywords

Construction, Early appointment, management contracting, Hong Kong, Two stage selective tendering

1. Introduction

Management contracts for construction are becoming more and more popular these days in Hong Kong. In a management contract, the contractor does not execute any of the construction work itself, rather, it tenders out the work in the form of work packages to different sub-contractors known as work package contractors (Franks, 1998; Masterman, 2002). The management contractor is usually appointed early in the project life and has considerable design input. It tenders out work packages one by one at different times according to the progress of the design work. Once the design of a work package is finished, it can be let out to a work package contractor. Thus the construction work of this particular package can commence while the design of other work packages is still in progress. Usually the management contractor recognizes the effect of each work package on the overall programme and identifies the sequence of work packages necessary to complete a project. Because of this, savings can be achieved due to design-construction overlap. Hence, the management contractor's design input is essential for the project (Tang *et al.* 2003).

The tendering procedures for management contracts are quite different from those of traditional construction contracts. Usually, a management contract is a cost plus contract between the owner and the management contractor (Tang *et al.* 2003). In the selection of a management contractor, tenders are invited and they are usually submitted based on the "base cost" of a project. This base cost is roughly estimated by the designer (or consulting firm) before tendering, so that tenderers can submit tenders by referencing such a base cost. However, by doing so, the management contractor, who usually helps giving design input/advice to the designer, may sometimes be too late to become a part of the project team, because the management contractor would enter the game only after main contract tendering (Tang, 2002). This is a

dilemma. Is there a possibility that tenders be submitted before a base cost is known, so the management contractor can be appointed as early as possible in order to give design input at the very early stage of a project? The objective of this paper is to study such a possibility and find a solution.

Literature review on this subject has been conducted. In 1983, The National Joint Consultative Committee for Building (NJCC) in the U.K. published the *Code of Procedure for Two Stage Selective Tendering*, with the assumption of the use of JCT form of management contract (Clause 2.6.2). The tendering system involves competitive selection of building contractors in the first stage, which is based on past project's bills of quantities containing works similar to the project in hand (Kwakye, 1997). After the contractor has been selected at the first stage, he is integrated into the design team. The selected contractor will then work with the design team. Negotiation on the total contract sum will commence at a time (the second stage) when the design is more sophisticated. According to Ashworth (2001), this selection procedure may be suitable for management contracts. (For a diagrammatic illustration of the said two stage selective tendering please see Appendix at the end of this paper).

2. Methodology - Questionnaire Design, Interviews and Case Study

In this study, a questionnaire containing questions related to early appointment of management contractors was designed before the interviews. The questionnaire contains 13 questions, which were categorized into two sections. The first section contained questions concerning the background information of those projects using management contracting, and questions asking the degree of involvement of management contractor during the design phase and the time at which the management contractor was appointed. The second section aimed to find out the interviewees' opinions on the suitability of appointing a management contractor prior to appointing the designer. The same questionnaire was used in all the interviews.

Twelve senior professionals from the local construction industry were approached to solicit their opinions. To ensure that the results obtained were un-biased, in-person interviews were arranged with representatives from various parties involved in management contracting. They were clients (four numbers), designers/consultants (four numbers) and contractors (or management contractors if applicable) (four numbers). These twelve persons were selected because the authors had personal relationship with them, e.g. friends, past colleagues, etc.

A case study is then used to illustrate the findings from questionnaire interviews.

3. Findings

The findings of the interviews are summarized as follows:

- There is no definite time difference between the time that the designer is selected and the time that the management contractor is selected; the time difference depends on factors such as approval procedures like land-acquisition and re-development, client's requirements etc;
- Management contractors in recent years are involved in projects earlier than before;
- The majority of interviewees feel there is no need to appoint management contractors earlier than when they are appointed in current practice;
- Single stage open tendering is not suitable as the selection procedure; single stage selective or negotiated tendering are feasible methods;
- Two stage tendering (NJCC, 1983) is the most suitable method, but a few criticized that it may be risky to select a management contractor based on previous project's bills of quantities;
- The client should focus on the contractor's past experience on similar projects in selecting a

- management contractor;
- Management contractors should be carefully pre-qualified before they are invited to tender;
 - The abilities to forecast potential problems, to communicate effectively with consultants and clients, and to offer services in value engineering are essential to a management contractor, if he is to be selected before the consultants;
 - The inclusion of guaranteed maximum price is undesirable, whether single or two stage tendering process is used, otherwise it would be unfair to the management contractor;
 - The terms of payment is the same for single and two stage tendering, with cost plus fixed fee in the design phase and cost plus percentage in the construction phase;
 - Over half of the respondents felt that the client is the party bearing the most risks, in terms of project time, cost and quality;
 - Some of them expressed that the risks of the management contractor, in terms of reputation, is comparable to the client's risk;
 - It is suggested that an alternative solution is to sub-divide the whole contract according to key stages, which is believed to be able to reduce the risks of clients and management contractors;
 - Cost plus fixed fee for each stage is suggested to be feasible in stage-by-stage method. The fixed management fee could be more easily negotiated because a smaller scope of work for each stage could be easily foreseen.

4. Case Study: A Luxurious town house development

Situated at the countryside of Hong Kong Island, the project involved the construction of four prestigious town houses which would replace two villas. The contract sum was about HK\$40 million (US\$1.00 = HK\$7.80).

The client demanded an early start for the project, which required the work package awards to be fast tracked. The management contractor was appointed in early October 1998, the middle stage of the design phase. The management contractor was responsible for the preparation of tender documents, pre-qualification of work package contractors, tender analysis and value analysis. The whole tendering process, from the time the management contractor was appointed to the award of the first work package, took about 40 days. The construction work started in mid November, two months ahead of the schedule compared to the programme if traditional contracting had been used. The overall project duration was 10 months, from building foundations to being fully fitted and ready for occupation. The concrete structure part of the project had been completed by the Chinese New Year in early February of 1999.

The Chinese New Year was one of the factors for the decision to use fast-tracking. Had traditional contracting been adopted, the awards of the contracts could not have been made before late January. In that case, the construction work would have to start in mid February after the Chinese New Year. Furthermore, though fast-tracking was adopted, the management contractor was still allowed to have certain design input during the design phase. The management contractor offered advice to the design team on the suitability of materials to meet the client's budget. One example was the specification of windows. Single glazing window, instead of double glazing as stated in the specification, was suggested by the management contractor because the price was too high for double glazing materials. Amendment to the design was proposed by the management contractor to effect this change.

Because of the time saved from early completion, the client was able to enjoy financial benefits by getting his revenue earlier. All the town houses were rented out shortly once they were ready for occupation. The revenue from the rent was approximately HK\$125,000 per town house per month. By completing the

project two months ahead of schedule, the extra revenue generated will amount to HK\$1 million, which was about 2.5% of the contract sum (about HK\$40 million). The final project cost, as compared to the estimate made at the beginning of construction, was about 2% higher. The increase in cost was due to the variations and additional works demanded by the client.

5. Observations on the Case Study

This is an excellent example to illustrate how construction using management contracting could benefit the client. With management contracting, the client enjoyed faster rate of production at no increase in cost (while the rise in cost was due to additional work). This contradicted the traditional perception that saving in time could not be achieved without raising the cost. It is believed that such saving in cost or time can also occur in commercial building projects of larger scales, which involve more complicated building procedures, and hence construction time is of significant importance.

The interviewee of this project was clearly aware of the benefits from involving the management contractor at an earlier stage. He was also optimistic that further saving in cost might be achieved if the management contractor was appointed prior to the appointment of consultants. However, he opined that with no previous local projects proving the success of such an arrangement, it is unlikely that the local industry would be convinced of the effectiveness of this practice. Clearly, more awareness and discussions on this issue would be needed in order to let more people realize its potential benefits.

6. Discussion and Conclusion

From the findings of the interviews, it is observed that the client's confidence is a key factor in deciding whether to appoint a management contractor early. In particular, his confidence is crucial to the success of the two stage selective tendering process. It is therefore necessary that assurances be given to the client by the management contractor that the latter is competent enough to perform the various tasks at the project's early stage.

It is also observed that the practitioners of the construction industry are generally aware of the advantages of involving the management contractors early in the design stage of the project. Yet, they are not keen on appointing the management contractor first and then the designer (consultant). Their view is that it is unnecessary to do so.

The two stage selective tendering is considered to be the most feasible method out of all the options available. This allows the management contractor to be appointed as soon as possible and at the same time allows the client and the contractor to defer the lengthy negotiation to a later stage. It is also the most feasible method for situations with unknown base cost. Nonetheless, it is suggested by the respondents that the selection criterion should not only be focused on the past bills of quantities, but also the management contractor's past experience on related projects. An alternative solution has been proposed by some respondents. It is to divide the whole project (or contract) into key stages, and this is believed to be able to reduce the risks of clients and management contractors.

7. References

Ashworth, A (2001). *Contractual Procedures in the Construction Industry*. 4th ed. Longman, Harlow, UK, pp.95-100.

Franks, J. (1998). *Building Procurement Systems: a client's guide*. 3rd ed., Addison Wesley Longman, Harlow, U.K.

Kwakye, A A (1997). *Construction Project Administration in Practice*. Longman, Harlow, UK, pp.141-143.

Masterman, J.W.E. (2002). *Introduction to Building Procurement Systems*. 2nd ed., Spon Press, NY., Chapter 6.

National Joint Consultative Committee for Building (1983). *Code of Procedure for Two Stage Selective Tendering*. The National Joint Consultative Committee for Building, U.K.

Tang, S.L. (2002). The Use of Management Contracts in Hong Kong. *Journal of Industrial Engineering/Engineering Management, Vol. 16 (Supplementary)*, Zhejiang University, China, Paper Number 1004-6062 (2002) S0-0149-03, pp.149-152.

Tang, S.L., Poon, S.W., Ahmed, S.M. and Wong, K.W. (2003). *Modern Construction Project Management*. 2nd ed., Hong Kong University Press, Hong Kong, pp.31-32.

Appendix: Two stage selective tendering (M.C. = management contractor)

