

Present State of Contracting Based on Other Than Lowest Cost Criteria in USA, UK, Japan

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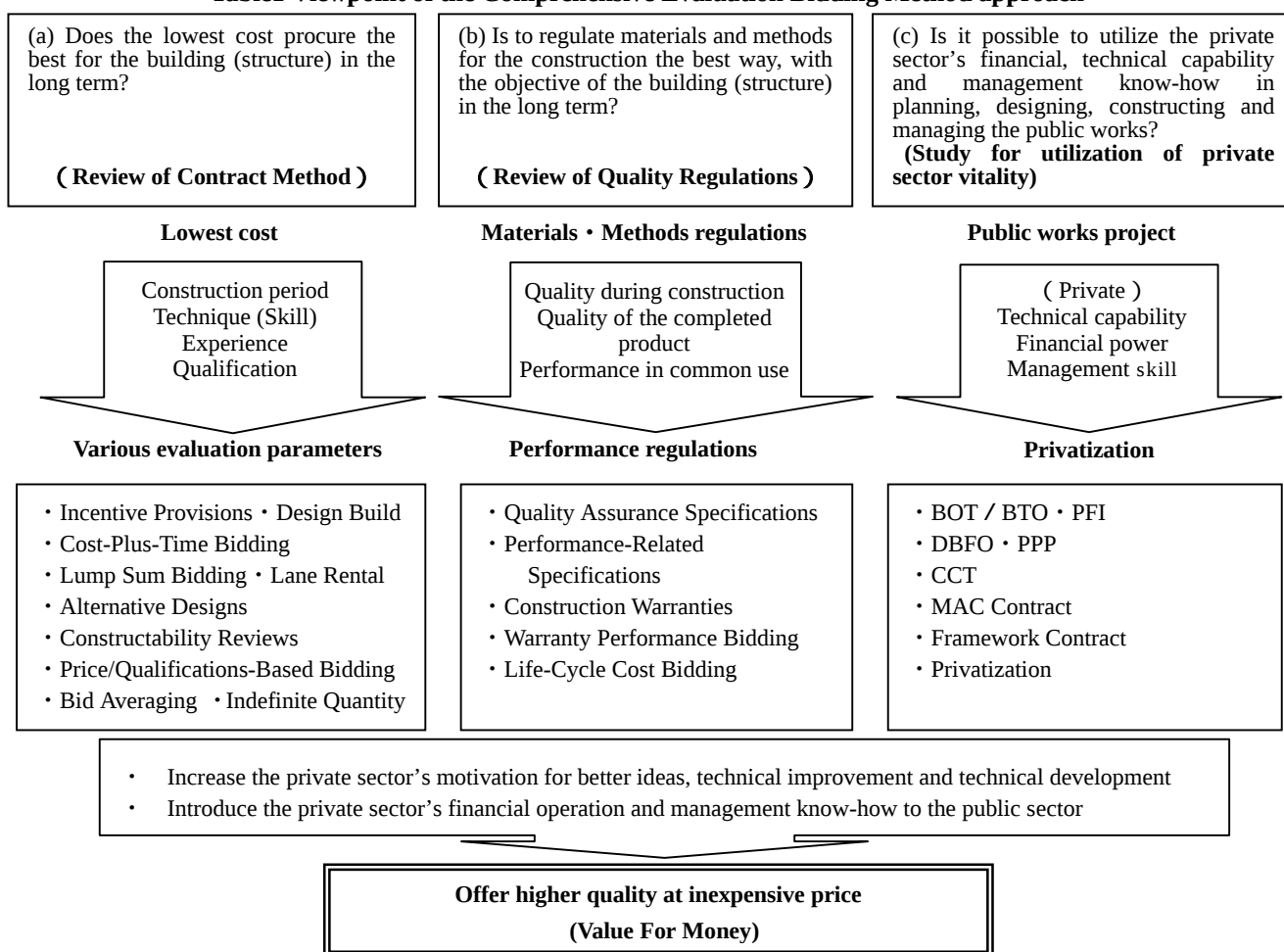
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1. Introduction

Comprehensive Evaluation Bidding Method (CEBM) is a new kind of Bid Evaluation procedure in which the bids are evaluated based on various new factors other than the lowest cost. These other factors are comprehensively evaluated to decide about the successful bidder. This method of bid evaluation was introduced for public works in Japan in 1998 and the outcome of such projects are now appearing. USA and UK started this type of CEBM 10 years prior to Japan. USA introduced a Special Experimental Project NO.14 (SEP-14) as an innovative contracting procedure, which was followed by Contracting 2000, which enlists new contracting procedures to be experimented by the year 2000. Whereas in UK the idea of DBFO was generated from PFI, and this DBFO method was utilized to improve some trunk roads in UK.

2. Development of approach of Comprehensive Evaluation Bidding Method (CEBM).

Table1 Viewpoint of the Comprehensive Evaluation Bidding Method approach



Key word: Bid evaluation based on various factors, The lowest cost, Life cycle cost, Performance, SEP-14, DBFO

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In 1980 at the time of secondary oil shock, over years the quality of public construction works was declining in UK and USA and was regarded as a social problem. In order to improve the quality of public works, both countries studied Innovative Contracting System and made innovations in their bid Evaluation procedures. USA introduced SEP-14 on Trial and Assessment basis, which was then followed by Contracting 2000. Whereas in UK privatization was introduced, which was, then followed by PFI which utilizes the Private Sector Finance and Knowledge. Two Envelope System was also introduced to evaluate the Technical and Financial proposals separately. Significant development had been made in Design Build and DBFO, whereas the PPP is still in its development stage.

3. Practical examples of CEBM in US, UK, Japan

Table 2. Practical examples of CEBM in US, UK, Japan

Projects (Contract Method)	Evaluation parameters								Calculation methods		
	Life cycle cost	Performance/ performance-related	Environmental preservation	Traffic security	Special safety measures	Energy/resource saving or recycling	Construction period	Staff's ability	Addition method (Price + Quality)	Division method (Price / Quality)	Gradual method (Primary, Second)
United States											
North Dakota State South College Street Reconstruction (A + B Method)							○		○		
Louisiana State, I-10 Pavement Work (A+B+C bidding)	○						○		○		
Maryland State, I-695 Bridge Painting Work (A - Q bidding)		○							○		
Florida State, I-75 Bridge Improvements (Design Build Contract)		○	○	○					○	○	○
Michigan State, Truss Bridge renewal Work (Best Value Contracting)							○	○		○	○
United Kingdom											
A2/M2 Road Improvements (Design Build Contract)			○	○		○	○	○	○		○
A303 Stone-henge Road Improvements (Early Design Build Contract)	○		○				○	○	○		○
A13Thames Gateway Improvements (DBFO Contract)				○	○			○			○
Japan											
Imai No1 Bridge Removal Work (Comprehensive Evaluation Bidding Method)				○						○	
Hirai 7-chome High Standard Levee (Comprehensive Evaluation Bidding Method)			○							○	

In the above chart the six parameters (from left) are included in the guidelines of present Japanese CBES. The following methods are used for evaluating quality and price comprehensively.

(a) Addition method: Evaluation Value = (Quality point) x α +(Price point) x β

(as for α and β , it depends on each project)

(b) Division method: Evaluation Value = (Quality point) / (Price)

In USA, both methods (a) and (b) are utilized for the evaluation of bids, whereas in UK method (a) and in Japan method (b) is used.

4. Conclusion

CEBM was recently introduced in Japan and its results are not yet sufficient. USA and UK initiated CEBM 10 years prior to Japan and gained sufficient experience through the outcome of such projects. The method of evaluating price and other factors vary in each country based on their own background and experiences. However evaluating a bid based on new factors other than lowest cost gives a good VALUE FOR MONEY.