# Bidding trends in the field of civil engineering consulting

MORITA Yasuo, Researcher KOBAYASHI Hajime, Senior Researcher YOSHIDA Jundo, Researcher MINAMI Masahiro, Guest Research Engineer

Construction Management Division, Research Center for Land and Construction Management

(Key words) consultant engineering, bidding method, Quality and Cost Based Selection (QCBS)

#### 1. Introduction

Since the FY2007 introduction of the Quality and Cost Based Selection (QCBS), method of deciding the successful bidder by comprehensively evaluating price and technology, for civil engineering consulting ordered by the Ministry of Land, Infrastructure, Transport and Tourism, the number of orders has steadily increased until it reached about 47% of all orders for civil engineering consulting in FY2012. And during this period, various low bid prevention measures such as the Assessment System for Certain Accomplishments (multiply the number from 0.0 to 1.0 by engineering points of the bidder whose bidding price is lower than Threshold Price for Low Price Inquiry) were introduced to QCBS, lowering the low successful bid rate to 0.2%.

On the other hand, the tendency for bidding prices to be concentrated near the threshold price for low price inquiry has strengthened, and bidding is being conducted under strong consciousness of price competition as in the past.

## 2. State of bid value with QCBS

The ratio of each bid value to Threshold Price for Low Price Inquiry is defined as the "Threshold Price Ratio", and the table shows the frequency of the appearance of Threshold Price Ratios from 1.0 to 1.05 in bidding for works executed by regional development bureaus etc. It shows that all bidders which include a successful bidder who bid directly above the Threshold Price for Low Price Inquiry are increasing every year. We interviewed contractors about this tendency, and they pointed out that in cases where, even through their technological capacity is superior, the difference in technology scores between them and others are small or unclear, it is difficult to shift their technological capacity to price, and ultimately, the competition becomes a simple price competition<sup>2)</sup>.

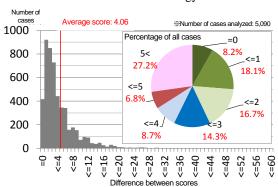
Table. Frequency of Threshold Price Ratios from 1.0 to

1.05				
	FY2009	FY2010	FY2011	FY2012
Successful bids	0.211	0.359	0.553	0.635
All bids	0.231	0.420	0.600	0.657

#### 3. Technology evaluations in QCBS

In response to the information pointed out above, the distribution of first or second technology scores for various works to which QCBS was applied in FY2012 when QCBS was applied, were organized in the chart. Although the difference in scores exceeded 5 points in about 27% of the work cases, the technology score difference was extremely small at 1 point or less in about 26% of the work cases.

Figure. Distribution of Differences Between Scores of First and Second Technology Score



### 4. Future research

We are worried that excessive price competition lowers not only quality, but also technology capability of the entire construction industry. In order to appropriately evaluate technology capability, we wish to study revising the technology evaluation procedure in QCBS, and also to study the best way to apply ordering methods including Quality Based Selection and competitive price selection .

And as a result of decline in the quantity of orders in recent years, competition between regional companies and major consultant companies which active over wide areas of Japan has been seen in some field of works<sup>3)</sup>. In order to study ways to carry out nurturing of regional companies to handle the response to disasters, we wish to spotlight bidding trends by company category in the future.

[Sources]

# 1) State of implementation of bidding and contracting in consultant engineering

http://www.nilim.go.jp/lab/peg/siryou/chousasekkei\_hinkakukon/20130325shiryou2.pdf

### 2) Yoshida, Morita, Otani, Minami:

A Study Of Competition Between Major Consultant Companies And Local Ones In The Field Of Construction Engineering Service, Journal of Construction Management and Engineering(VI), December 2013

### 3) Minami, Morita, Otani, Yoshida:

A Study of the Quality and Cost Based Selection System which is Operated by Ministry of Land, Infrastructure, Transport and Tourism in the field of Construction Consultant Engineering, Journal of Construction Management and Engineering(VI),December 2013