Collusion in Bidding and Its Countermeasures under the System in Which the Lowest Evaluated Bidder Wins

- Collusion between Bidders and Evaluators

Quanmin Wang, Zhenming Zhang, Xiamen, China

Abstract: This paper examines collusion bidders and evaluators, a new phenomenon which has recently surfaced under the system where the lowest evaluated bidder wins, and provides an analysis of the basic factors of its emergence and of the institutional limitations that contribute to such a phenomenon. With experience gained, this paper, for the first time ever, proposes comprehensive measures, such as expanding the bid evaluation committee, adopting multi-factor evaluation, streamline evaluation and sealed bid evaluation, to counter collusion between bidders and evaluators.

Keywords: Public Bidding; Collusion in Bidding; Countermeasures

Xiamen is the first Chinese city to comprehensively implement the evaluation system where the lowest bidder wins. At the outset, people expected this bid evaluation method to put a brake on collusion in bidding; however, it turns out that after the implementation of the system, collusion in bidding has persisted and even shown an upward tendency. In Xiamen, bid evaluation methods have been constantly reformed; over the past years, the system in which the bidder closest to the engineers' estimates wins, the comprehensive grading system, the system in which the lowest bidder wins, and the system in which the lowest bidder wins after evaluation have in turn been adopted. On the strength of such reforms, an innovative bid evaluation system centered on post-qualification and aimed at preventing collusion has been built [1]. Experience gained from the implementation of this system is used to refine the theories of public tendering, while new theories thus established are used to enhance the formulation and improvement of public bidding methods. This process has been repeated over the years, producing significant results – Xiamen leads the nation in public bidding in terms of practical experience and theoretical research, as well as fairness and impartiality. Nevertheless, while the innovative post-qualification method has effectively stemmed collusion among bidders, collusion among bidders and evaluators has surfaced, triggering uncertainty and chaos in the construction market.

1 New Collusion in Bidding Following the Implementation of the System Where the Lowest Evaluated Bidder Wins

1.1 Basic Factor Giving Rise to Collusion in Bidding

Under the system where the lowest evaluated bidder wins, in order to win the bid, first, the bidder must submit a sufficiently low bid; otherwise, he would not even have a chance to have his bid evaluated; second, the cumulative amount of unreasonable quotations must be lower than a prescribed level (currently set at 2-5% in Xiamen, which is actually the profit margin of the

construction industry) [2]. As such, many bidders use their best efforts to make sure the quotation for each item of construction works and engineering measures are slightly over the minimum control line (the range prescribed by Xiamen authorities in which estimated costs can be lower than the industry's average costs), thus resulting in unreasonable quotations of small amounts. If the quotation for the item escapes the attention of the evaluators, the bidder will break through the control line and get away with a low bid; if it is detected by the evaluators, as it's of a small amount, the cumulative amount of unreasonable quotations may not necessarily exceed the prescribed level; thus, this may improve the bidder's chance of success.

Under these circumstances, the bids of the majority of the bidders are invalid as they exceed the limit. Considering this situation, the workload for the bid evaluation committee would be enormous. Given the current system in which bid evaluation is conducted under a tight schedule, it's very different to invalidate all bids. This may give rise to such an outcome: if the evaluation committee wants to make a certain bid unsuccessful, they can simply conduct a careful evaluation, and the bid will be invalidated; and if the evaluation committee wants to make a certain bid successful, they can do so by giving the bid a haphazard evaluation. In this scenario, the evaluation committee may have "excessive absolute discretion", which paves the way for evaluators and bidders to collude with each other in the bidding process.

1.2 Collusion between Evaluators and Bidders

At present, the probability of winning the bid is particularly low. It can be very frustrating to lose a bid as all the expenses incurred in preparing the bid goes down the drain and the hard efforts to do a project is in vain. All bidders try their best to improve their chance of success, and the most effective way to secure success in the bidding is to collude with unscrupulous evaluators or the bidding agency. Evaluators might relax the standards for the bid they prefer so that it can win, while strictly checking each and every item in lower bids in order to invalidate them. With evaluators not from the owner, a bidder may have only a few hours or minutes to arrange for collusion, while with evaluators from the owner, a bidder may have several months or a longer period of time to arrange for collusion. Evaluators from the owner are typically more familiar with the project and easier to become a target for a bidder's "public relations" offensive. Evaluators from the owner generally have more say on the bid evaluation committee (all expenses of bid evaluation, including the experts' fees, are covered by the owner); therefore, if collusion has taken place, evaluators from the owner will be the most obvious suspect. If the collusion is successful, it is absolutely an injustice for society. With such an injustice, frustration over losing a bid and speculations of foul play, resentment and grievance will be infinitely amplified in the minds of unsuccessful bidders, leading to cries for system reforms.

2 Countermeasures against Collusion in Bidding

For small projects, there is little point in evaluating bid quotations in detail in order to ensure an efficient allocation of resources, as a simplest, fairest and most cost-effective method can be used to determine the winning bid. For example, a totally open system in which the absolutely lowest bidder wins or the partially competitive method of lot drawing can be adopted to reduce the evaluators' discretion, thereby stemming the collusion between bidders and evaluators.

For large and medium-sized projects, a combination of measures can be adopted. On the strength of the system in which the lowest evaluated bidder wins and within the limits of the law, multiple tactics can be implemented to reform and renovate bidding rules and further improve existing bid evaluation methods.

2.1 Reform of the Database of Bid Evaluating Experts

1) As experts from the owner may fall prey to "public relations" offensive and lose their impartiality, the roster of evaluators can be submitted to the expert evaluation committee in order to eliminate "suspicions". From a legal perspective, this can be interpreted as follows: for a project financed with public funds, the work of the bid inviter as the project's undertaker is to manage the investment of the government into facilities; therefore; the actual owner of the project is the government; for this reason, the government has the right to relegate less than one third of the membership and power of the evaluation committee required by law for bid evaluation to randomly selected experts. This is also in conformity with the legal provision that "a bid evaluation committee shall have five or a higher odd number of members, and at least two thirds of the members shall be experts in technical and economic fields." [3]

2) Databases of bid evaluating experts, classified by discipline, may be established. In the current era of knowledge explosion, any expert is an expert in a single field and is no different from common people outside of his field, and therefore is not in a position to evaluate bids beyond his field of study. As such, an expert should be limited to the evaluation of the bid within his field of study.

2.2 Initial Evaluation Reform

1) Clarification and Correction

   Calculations and summing should be checked for arithmetical errors and any such errors should be corrected. First, the bill of quantity in the bidding document should be subject to arithmetic check and correction. If any item is missing from the bill of quantity, the average price quoted should be used to

make it up; and second, ambiguity, inconsistency, obvious errors and arithmetical errors in the bidding document should be remedied.

2) The Multi-Factor Evaluation under the System in Which the Lowest Evaluated Bidder Wins

For large or complicated projects, bid evaluation methods used by international financial organizations or foreign governments for loan or aid projects can be referenced [4]. Bidders' quotations should be readjusted in monetary terms by taking into account their reputation (which is indicative of their quality and ability to perform the contract and their prior project experiences), tax payments (a measurement of their performance and contribution to the public), and schedule (cash flow and time value of funds during the period of construction), in order to avoid "reverse elimination" in which "bad money drives good money out". The bid with the lowest price is not necessarily the most economical bid; the bid with the lowest evaluated price is. This method can prompt enterprises to attach great importance on branding and reputation and reduce collusion in the bidding, thereby ensuring the survival of the fittest and creating an enterprise competition and growth environment that allows the strong to stand out and weeds out the weak.

For example, Bidders A and B can be given an influence factor of 5% and 2%, respectively, according to their brands which are evaluated on the basis of their reputation, resources, tax payments, rate of excellent projects, incidence of accidents. Suppose that for a certain project, Bidders A and B offer a price of RMB 10 million and RMB 9.8 million, respectively, the evaluated prices taking into consideration their brand value can be:

Bidder A: RMB 10 million－1000×5% = RMB 9.5 million

Bidder B: RMB 9.8 million－1000×2% = RMB 9.604 million

Conclusion: Bidder A wins the bid.

2.3 Detailed Evaluation Reform

1. Increasing the Number of Evaluators

The principle is to let more people do what needs to be done within the same length of time, so that bid evaluation can be effectively performed. Under the current bid evaluation system, evaluators perform bid evaluation under a tight schedule; therefore, a bid may win even though it exceeds the total price limit as evaluations do not have the time or energy to find out the all unreasonable points in it. If the number of evaluators is increased, there will be a better chance to catch all times that exceed the limit and invalid all nonconforming bids. Depending on the size of the project, the number of

experts for evaluating commercial bids can be increased to five to 15 to form a “grand bid evaluation committee”. Such a practice is in conformance to the legal provision that the bid evaluation committee must have more than five members. [3] [5]

2. *Adopting the “Streamline Evaluation” Method to Evaluate Commercial Bids*

This method is copied from the streamline paper grading method in the education sector. A bid can be divided by discipline into different units, which are evaluated by different evaluators. The bid goes through each evaluation and its evaluation is completed when it reaches the last evaluator. With this method, the bids may be sealed and evaluators will have no idea of the source of the bids and therefore show no bias. It’s said that this sealed document method was invented by Wu Zetian in the Tang Dynasty and has been around for thousands of years without any replacement.

This method can be implemented in the following steps: first, the owner or bidding agency determines the number of evaluators and composition of disciplines according to the particulars of the project, and then divides the bid in to several units and gives each evaluator roughly the same workload which can be completed in 10 to 30 minutes. After entering the bid evaluation room, the randomly selected evaluators first are briefed by the owner or bidding agency on the particulars of the project, and then start with lower bids and evaluate each of the pre-assigned bid units. The breakdown of the bids and the scoring of each group (cumulative statistics on unreasonable quotations) are performed automatically by interconnected computers. As soon as the candidate for the successful bidder who complies with the requirements is identified, the computer will automatically stop bid evaluation.

Advantages of Streamline Bid Evaluation:

(1) An evaluator needs to review a certain part of the bids. After getting familiar with the procedure with the first few bids, the evaluator will be repeating the same process with subsequent bids; thus, his speed and quality of evaluation will increase.

(2) It’s easier to unify evaluation standards and maintain a unified application of the standards.

(3) The evaluators are evaluating units assigned by the computer and do not know the source of the bid. Thus, this “sealed bid evaluation” can effectively prevent collusion between evaluators and bidding agencies and bidders.

(4) All evaluators operate within their field of expertise and evaluate the contents within their field of study, thus preventing “laymen’s evaluation” to a certain extent.

(5) As long as a bid contains unreasonable elements, they will be detected in the evaluation to the greatest extent possible and cumulated, thereby preventing the phenomenon in which a bid exceeds the total price limit and eliminating the phenomenon in which a bidder whose total price exceeds the limit loses the bid while another bidder whose total price exceeds the limit wins the bid. In this way, the aim of correcting any error will be achieved, the present phenomenon in which most bids exceed the total price limit can be reduced, and bidders will consciously avoid exceeding the total price limit.

References:

[1] Quanmin Wang: Theory and Practice of Using Post-Qualification Method to Prevent Collusion in Bidding, [J] Construction Economy, Issue 6, 2007

[2] Quanmin Wang: Evaluation Theory and Methodological Research on Cost Price, [J] Construction Economy, Issue 3, 2007

[3] [Z] The Bidding Law of the People’s Republic of China, Article 37, August 30, 1999

[4] Bo Lin, Shunyong Xu: Discussions of the System in Which the Lowest Evaluated Bidder Wins, [J] Zhejiang Water Conservancy Technology, Issue 3, 2006

[5] [Z] Decree by Seven Ministries and Commissions: Interim Regulations on Bid Evaluation Committee and Bid Evaluation, Article 9, July 5, 2001