A Preliminary Study on Problems in Tendering and Bidding of Landscape Project

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Abstract: - There still existed some problems in tendering and bidding of landscape project, though it has made some progress with the thriving of landscape industry. This study tries to address and solve the existing problems by survey and analysis of those problems according to characteristics of landscaping, for laying theoretical basis for the further development of landscape project tendering and bidding.

Key-Words: - Landscape Project, Tendering and Bidding, Problem Analysis

Tendering and bidding of landscape project refers to all tendering and bidding works in the relevant projects related with landscape industry [1]. It not only share characteristics with common tendering and bidding, such as procedure specifications, high transparency, objectivity and fairness, a one-time deal between parties in action and confidentiality in bid price [2], but also has its own distinct characteristics as follows: diversity in factors, art creativity in contents, differences in bid price, seasonal costs and preference in appraisal. Current studies on tendering and bidding has made some progress [3-12]. However, there still few systematical researches on problems existed in tendering and bidding for landscape project. It’s necessary to survey actual cases and address the existing problems in order to lay theoretical basis for an orderly, healthy and efficient tendering and bidding of landscape industry.

1 Research methods and implementation on tendering and bidding of landscape project

All aspects of tendering and bidding of landscape project are surveyed by a questionnaire to discover problems and analyze them. The survey of 202 respondents are mainly based in Beijing, Shanghai, Tianjin, Nanjing, Chongqing, Jinan, Shenzhen and Suzhou and Huai'an, among which 51 are from building companies, 33 from construction companies, 31 from design companies, 19 from supervision agencies, 22 from tendering and bidding agencies and 46 are experts and scholars from universities and research institutes.

2 Analysis of survey results and existing problems

Analysis of data collection shows that reliability and validity of the questionnaire satisfy the need of the study, and survey results and existing problems are analyzed as follows.

2.1 The survey result in the problem links of the tendering and bidding of landscape project

The survey result in the problem links of the tendering and bidding of landscape project (Fig. 1) shows that 131 respondents choose for the link of greening and procurement of building materials, 108 for construction, 87 for subcontracting, 70 for bidding strategy, 65 for bidder evaluating, 62 for prequalification, 57 for bidding documents compiling, 41 for evaluation committee and 43 for bidder determining and contract signing. It reveals that every link of the tendering and bidding of landscape project tends to have problems with varying frequencies and different groups place different emphasis on the problem links. Therefore, those with high frequency should be focused.

2.2 The survey result in specifications fairness of the tendering and bidding of landscape project
The survey result of specifications fairness in the tendering and bidding of landscape project (Fig. 2) demonstrates that 59 respondents choose fairness for the specifications, which accounts for 22.91%, 67 (33.17%) for basic fairness, 70 (34.65%) for unfairness and 6 (2.97%) for severe unfairness. It reveals that 37.62% of respondents believe that there still exists unfairness and severe unfairness in the tendering and bidding of landscape project. Different groups share similar views on fairness except for those from supervision agencies, which accounts for a larger proportion of fairness, having something to do with their nature of job. Specifications unfairness in the tendering and bidding of landscape project was largely due to inadequate laws and regulations. Colluding behavior in bidding is particularly severe in actual operation and illegal acts like private compensation, accompanying-bidding and bribe-taking harm the economic interests of all parties. In addition, direct contracting and irregular bidding during the bidding design and disorderly subcontracting of construction the unfairness.

Therefore, relevant laws and regulations like The Bidding Law of the People's Republic of China, Law for Countering Unfair Competition of the P.R.C and Anti-Monopoly Law of the People's Republic of China should be gradually improved and implemented to resolutely resist illegal acts and prohibit the act of simplifying necessary procedures without permission while unnecessary links should be minimized to improve work efficiency. Moreover, internet technology should be maximized and bidding materials should be submitted through internet to save money, manpower and other inputs as well as reduce under-table dealings.

2.3 The survey result in the prequalification of landscape project bidding
The survey result of participation intention in the landscape project bidding when they encounter accordant biddings tells that 16 respondents (18%) state that they will definitely take part in while 186 (92%) believe that they will participate in selectively. The survey result in the failure factors of landscape project bidding (Fig. 3) reveals that 89 respondents will think about whether they have excellent relationships or not, 154 will think over profits, 140 will take into account timely payment, and 49 will ponder performance. It indicates that most of them will participate in bidding selectively and different respondents think differently over those factors. Apart from profits and payment, construction companies, design companies and tendering and bidding agencies will also take their relationships with the owner as an important factor, which is prone to cause problems in the prequalification, and these problems was based on the premise that there are flaws in the prequalification. Bidders have more opportunities to participate in bidding with the development of internet while some of them just go through the motions via acts like making connections, borrowing and being attached to some qualified companies. Evaluators collude with one bidder and block other bidders out with several reasons, seriously affecting the fairness. What’s more, the owner is often lax to evaluate materials submitted by bidders. In some small projects, the owner even directly omits the qualification and find problems after someone won the bidding, which affects the quality of the bidding.

To figure it out, prequalification procedures should be operated strictly to prevent a mere formality in accordance with actual landscape project by choosing appropriate prequalification method, carefully compiling prequalification materials and strictly evaluate submitted materials. In addition, the process and result of prequalification should be open and subjected to public supervision while its confidentiality should be kept.

2.4 The survey result in the landscape project bidding
The survey result in the failure factors of landscape project bidding (Fig. 4) manifests that 159 respondents choose non-optimal scheme, 78 for wrong bidding strategy, 98 for under-the-table act and 59 for unknown reasons. It indicates that optimizing the scheme and improving performance are ways to avoid failure in the bidding. Some respondents think that there exist under-the-table acts, which may due to misunderstanding and reasons stated in the above such as inadequate laws and regulations and opacity of the bidding procedure. The construction companies and design companies prefer to regard bidding strategy as the key factor to win or fail. Therefore, bidders often behave irrationally and take various strategies or even illegal strategies to win the bidding. The most common illegal strategy is unbalanced bidding strategy, adjusting the normal price, which leads to dysfunctional operation funds directly affecting the construction progress and causing unnecessary economic losses. In particular, some construction companies often attempt to win the bidding with lower price and achieve high-priced settlement by cheating in work and cutting down on materials, doing harm to the landscape project.
To sum up, we should tame lower landscape project cost price under reasonable floating ranges, select high-quality professional tendering and bidding agency, carefully examine bidding drawings and compile bidding documents to increase the chances of winning the bidding. What’s more, we should find out and boycott companies implementing dirty bidding strategies to provide a harmonious environment for the bidding of landscape project.

2.5 The survey result in the evaluation fairness of landscape project bidding
The survey result in the evaluation methods fairness of landscape project bidding (Fig. 5) tells that 18 respondents, 8.91%, tick fairness for the current evaluation methods, 70 (34.56%) for basic fairness, 106 (52.48%) for unfairness and 8 (3.96%) for severe unfairness and different groups share similar views. It reveals that 56.44% of respondents hold that the current evaluation methods are unfair or severe unfair and it is urgent to further improve those evaluation methods. The most common evaluation method is the comprehensive evaluation method; the minimum bid price method and the draw method are also often taken. However, these three commonly used evaluation methods have shortcomings: the comprehensive evaluation method does not always lead to reasonable reserve price and correct weights of evaluation due to its lowering of target bid price and personal preference; the minimum bid price method is prone to cash flow problems and poor quality while the draw method is too random to achieve the optimal result. Besides, the evaluation methods are templated and weakly targeted. Consequently, appropriate evaluation method should be taken in accordance with actual landscape project by choosing appropriate and the process should be fair and square, transparent and open, keeping necessary confidentiality as well as establishing and improving the professional and skilled evaluation expert database with higher fairness awareness and reasonable field allocation.

2.6 The survey result in the nursery stock procurement price of landscape project bidding
The necessity of setting up nursery stock price system of landscape project bidding (Fig. 6) demonstrates that 105 (51.98%) respondents hold that it’s necessary, 86 (42.57%) believe that it’s unnecessary and 11 state that it does not matter, and every group shares similar views. It reveals that there exists certain necessity of setting up a unified nursery stock price on the premise that a set of standards are created. Nursery stock procurement price of landscape project bidding has limitations. Some respondents think that it is unnecessary to unify the price for seasonal and geographical floating nursery stock price that lead to a labor-and-time-consuming process. However, the absence of a good price system for reference can easily raise more problems. Firstly, different prices among different kinds of nursery stock or among varieties of one seedling provide lucrative opportunities. For example, some companies will plant semperflorens with the same specification of the orange osmanthus in the original drawing to profit. Secondly, nursery stock price varies in different geographical environment and the price of the same species in different regions is also different. Thirdly, the price of the nursery stock with same species also varies because of different growing environment, individual differences and different soil and fertilizer management. Thus, to unify nursery stock price system is necessary and of practical significance. Meanwhile, the design phase is also prone to result in irrational nursery stock allocation and severely influence the construction bidding phase.

As a result, nursery stock price system of landscape project should be set up according to different geographical environment and seasons, calculating nursery stock prices of different regions and setting nursery stock database and qualification management system of seedlings and materials providers as references to the tendering and bidding of landscape project.

2.7 The survey result in satisfaction after landscape project bidding
The survey result in satisfaction after landscape project bidding (Fig. 7) shows that 119 (58.91%) respondents tick satisfaction and 39 (41.09%) for dissatisfaction and construction companies and design companies are less satisfactory than other groups. It can be seen that nearly half of the respondents are dissatisfactory about implementation of the bidding. The fundamental reason is that the post-bidding phase receives less emphasis, raising problems, to which frequent changes, private compensation or direct quit rather than address it with laws and regulations only make it worse. Moreover, the growing scale of landscape project and more complex engineering often calls for multiple times of tendering and bidding while the actual work boasts short periodicity, reducing efficiency.
Therefore, we should continue to place emphasis on the management of post-bidding phase, all parties living up to their rights and obligations in accordance with the contract, improving self-control and binding as well as strengthening education on post-bidding rights legal awareness. The actual post-bidding implementation should be comprehensively tracked to prevent illegal acts such as subcontracting contract.

3 Problem Solution

A preliminary study on problems in the tendering and bidding of landscape project

Based on the above problem analysis, some targeted feasible resolutions are put forward.

(1) Establish a sound national bidding law system for landscape and strengthen supervision and punishment. The existing laws and regulations should be improved and the boundary between colluding behavior in bidding and accompanying-bidding should be strictly defined to track the open bidding and whole process of supervision, appropriately punish violations and strengthen awareness of rights.

(2) Standardize procedures in the tendering and bidding of landscape project and improve evaluation methods to guarantee fairness. Simplify bidding procedures reasonably to improve efficiency. Targeted evaluation model may be set up by combining fuzzy comprehensive evaluation method and analytic hierarchy method of landscape project bidding.

(3) Strengthened the prequalification in the tendering and bidding of landscape project to prevent any violations in the beginning. Try to establish digital archives and paper documents for reference.

(4) Improve self-control and the professional competence of bidders to jointly create a healthy and orderly environment in the tendering and bidding of landscape project.

(5) Standardize nursery stock price system of landscape project should be according to different geographical environment and seasons for reference. Collective nursery stock prices of different regions and set up nursery stock price system of those regions to guide nursery stock procurement.

(6) Reasonably staff and manage workers in the tendering and bidding of landscape project. Establish specific tendering and bidding sector with professionals, training and checking on them regularly to improve the overall level.

(7) Try to combine the tendering and bidding of design and construction to enhance communications between the design party and the construction party.

(8) Place greater emphasis on the periodicity of in the tendering and bidding of landscape project and its post-bidding management.

References:


Fig. 1 The survey result in the problem links of the tendering and bidding of landscape project

Fig. 2 Garden bidding specifications fair investigation

Fig. 3 The survey result in the failure factors of landscape project bidding

Fig. 4 The survey result in the failure factors of landscape project bidding
Fig. 5 Garden bidding evaluation way of fair and reasonable

Fig. 6 The necessity of setting up nursery stock price system of garden bidding

Fig. 7 The satisfaction of garden bidding