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A Critical Approach to Contractor Selection Process of Turkish Public Building Procurement

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***Abstract*:** *Achievement of the project goals depends on achievement of the project delivery system. Altough traditional project delivery system has advantages releated to cost estimation, as a mostly prefered delivery method it has several problem areas releated to other project goals. Contractor selection process of the system is the major problem area that has influence on these goals. Turkish Public Procurement Law allows public entities only to use traditional project delivery system for the procurement of the public buildings. Due to the structure of the traditional project delivery sytem, public entities face with significant difficulties especially in tendering process. This study aims to explain contractor selection process of public building construction works in Turkey and initiates a critical approach to this process. In the scope of the study main problems of contractor selection process, that are definition of pre-qualifications and using of lowest bid method, are revealed. As a result of this study a new proposal is suggested for development of a new model using Qualification Based Selection method.*

Keywords: *Traditional Project Delivery System, Contractor, Contractor Selection Process, Qualification Based Selection, Turkish Public Procurement Law*

1. Introduction

Project delivery is the contractual relationships between the owner, architect/engineer (A/E), contractor(s), and the management services utilized to design and construct a project. Project delivery moves a project from a concept to a completed facility [1]. Because of this, selection of the right project delivery system is very important for the success of the project main goals that are quality, time and cost. Traditional project delivery system is one of the procurement systems that is prefered by both public and private entities. In Turkey Turkish Public Procurement Law (KIK) is the main regulatory law for the procurement of the public buildings and it only allows public entities to use traditional project delivery system for procurement of the public buildings. Because of the fundamental reasons such as lack of experienced units of the public administrations in construction, insufficiency of the traditional project delivery system and difficulties in bidding process in this system effective and efficient use of public resources is growth difficult in public building construction [2].

Selection of the right contractor to the right construction work have parallels with project success. Unfortunately public entities are not sufficient for selection of the right contractor because of the restrictive provisions of the KIK. Pre-qualifications that are determined in KIK documents are inadequate for evaluation of the qualifications. Beside according to KIK`s restrictive, public entities have to use “lowest bid” selection method for contractor selection. This restriction causes failing of state- own construction works. The lowest bid method does not enable public entities to select the most qualified contractor. This study aims to focus on difficulties releated to these problems in contractor selection process of Turkish Public Procurement Law. In the scope of the study three main phases of contractor selection process in public building procurement are explained and use of “Qualification Based Selection” (QBS) method is suggested as an alternative method.

2. Definition of Traditional Project Delivery System

Traditional project delivery system is the most common procurement system and it is referred to as “design-bid-build” option. There are three prime players: owner, designer (architect) and contractor [3]. The owner has

two separate contracts: one with the designer and one with the contractors (Figure.1). The design company is hired first to provide design services and develop the contract drawings and specifications. At the end of the design phase, the designer assists the owner in the bidding phase and selecting the contractor. Then, the owner signs a contract with the construction company to deliver the project. The designer assists in supervising the project during the construction phase. Two separate entities are engaged for design and construction [4]. The architect is responsible to the owner for the design of the project and also administers the construction contract as the owner`s representative. The contractor is responsible to the owner for the proper construction of the design and is responsible for methods and procedures of construction. This creates an independent relationship between the architect and the contractor with each directly responsible to the owner The separation of the architect and the contractor in this system creates a system of checks and balances because the architect and the contractor are in a position [3].

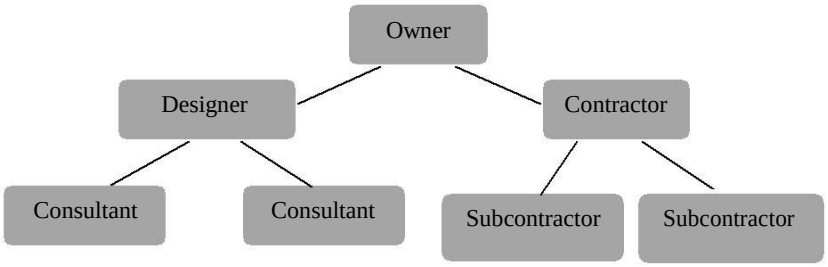

Fig. 1: Relationship diagram of participants in traditional project delivery system.

This is a familiar delivery method to most owners and requires a defined scope prior to bidding. The main disadvantages are the lack of involvement of construction professional during the design phase, longer delivery time (sequential), less flexible for changes and it often results in adversarial relationships among the parties involved [4].

3. Contractor Selection Process of Turkish Public Building Procurement

Occasionally, project owners in the public sector put out to tender construction projects of buildings, port works, roads, drainage, and waterworks as well as formation of sites. Contractors play a major role in such projects, which is why contractor selection constitutes a critical decision for project owners [5]. As a mandatory law in Turkey, KIK only allows public authorities to apply traditional project delivery system for procurement of the public buildings. According to the KIK tender to predetermined bidders process should be used in contractor selection process. This contractor selection process consists of three main phases. These phases are:

- Pre-qualification phase and invitation to bidding
- Tender commission process and bidding phase
- Invitation to contract and signing of the contract phase

Details of the main phases are shown in Figure.2. All of the phases are carried out by a bidding commision of releated public entity. Bidding process should be conducted accordance with KIK documents.

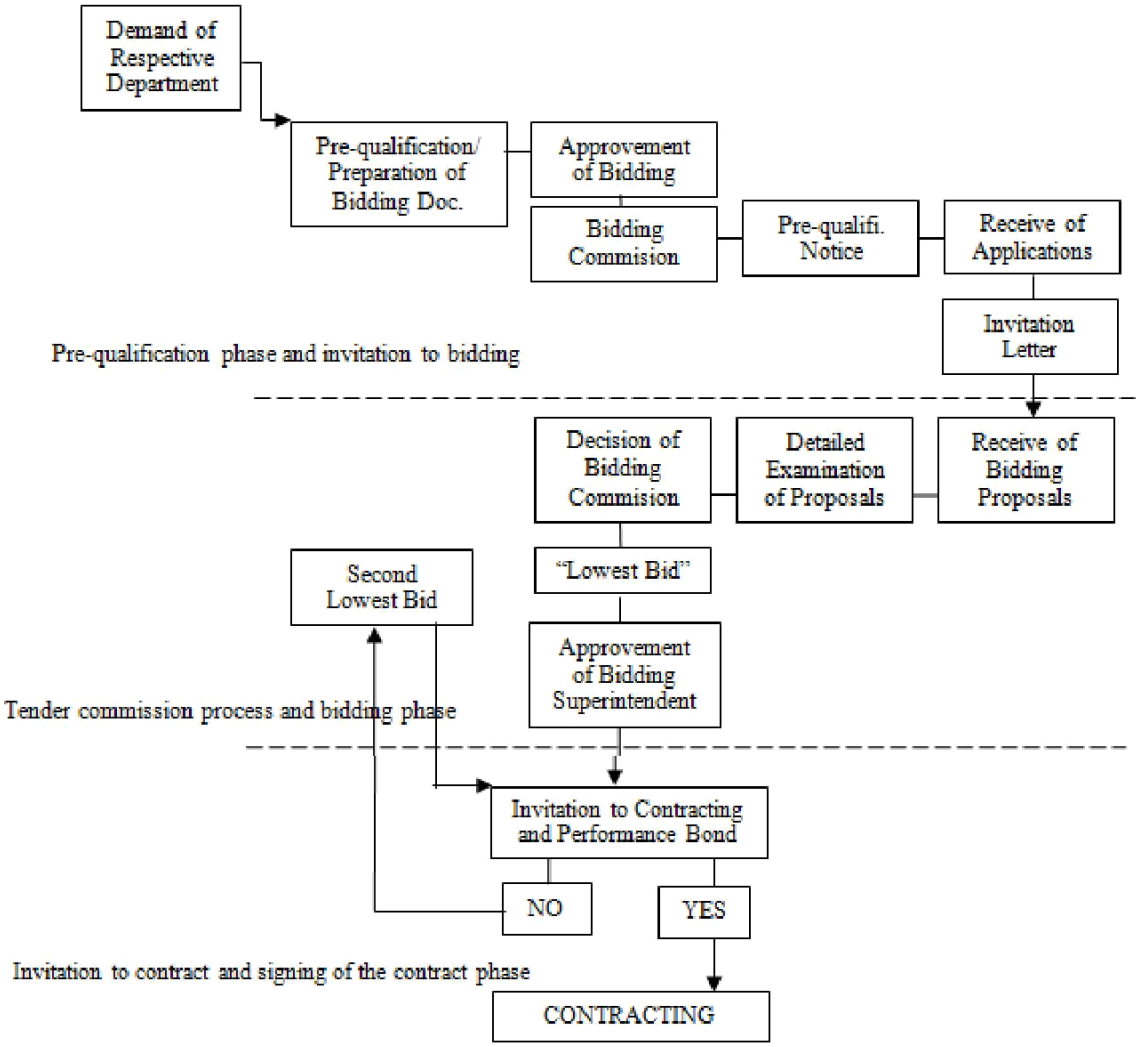

Fig. 2: Contractor selection process of Turkish public building procurement.

3.1. Pre-Qualification Phase and Invitation to Bidding

Contractor selection process in traditional project delivery system starts with the demand of respective department of the government entity. At the begining of the tender to predetermined bidders process, notice of pre-qualification that is in accordance with Pre-qualification Specification of KIK and bidding documents that are in accordance with Administrative Specifications of Tender to Predetermined Bidders are prepared. Bidding commision is established by bidding superintendent within three days after the bidding documents are prepared [6, Artical. 20]. After the notice of pre-qualification, applications of bidders are received.

In pre-qualification phase participation of all bidders are provided. There is no specially defined requirements in this phase except general conditions of the bidding. Pre-qualification documents are prepared by the bidders and they are submitted to bidding commision. But in this phase financial proposals does not taken from the bidders. Evaluation of the bidders are done according to the criterias specified in the notice of pre-qualification and invitation letter is sent to all bidders which are determined as sufficient for participating in bidding phase [7]. Economic and financial qualification, professional and technical qualification and the number of jobs that can be considered as acceptable equivalent or similar job are the main evaluation criterias considered in the pre-qualification phase [8, Article.7].

3.2. Tender Commission Process and Bidding Phase

Within the specified time, the bidders are requested to submit their financial proposal envelope to administration for undertaking the construction work. At the end of the bidding time on specified date, all

envelopes are opened in an opened session and all proposals and its bidders are announced. Then in a closed session, proposals are evaluated detaily by the bidding commission. Extremely low proposals can be evaluated with commision decision, if its bidder could certify:

- Construction method of the proposal is economic,
- The selected technical solutions and advantageous conditions will be used to fulfill the construction work,
- Proposed work has an individuality [6, Article.60.2; 9, Article.33].

At the end of the evaluation the most economically advantageous proposal is selected [6, Article.66.1]. In other words owner of the "lowest bid" is selected to assume the construction work. After the bidding commision decision, result of the bidding is approved by bidding superintendent.

3.3. Invitation to Contract and Signing of the Contract Phase

At last phase within 3 days following the notification of the selected bidder, he is notified to sign the contract and to give performance bond within 10 days [9, Article.40.1]. After the contract is signed by parties bid bonds taken from other bidders are returned to their owners. Unless the selected bidder does not sign the contract, his bid bond is registered as revenue and if the bidding superintendent deems suitable, owner of the second economically advantageous proposal in other words owner of the second lowest bid is invited to sign contract [9, Article.42.1].

4. Problems in Current System

According to KIK documents application of the "lowest bid" selection process is mandatory. At the first stage, the government entity defines pre-qualification specifications. Applicants are evaluated and scored with respect to four main pre-qualification criteria: "ability to timely complete projects", "organizational expertise", "availability of experienced technical staf", "availability of resources such as machinery and equipment". Contractors having a score less than a threshold value are screened out. There are limitations for the points that can be assigned to each main criterion. The project owners assign a unique value between these limits when they put out to tender. They have the right to exclude the last two criteria by giving zero point to them [5]. One of the main problem arises from definition of these pre-qualifications. Definition of the pre-qualifications are not sufficient to make a successful selection in this phase. Scope of the pre-qualifications should be extended as far as possible. Because nature of a project varies from project to project. Especially for construction works requiring specialization, definition of pre-qualifications gains importance.

Second problem arises from lowest bid selection method in second phase. After biddability review according to defined pre-qualification specifications, selected bidders entitled to submit their financial proposals. The government entity have to select the lowest bid and selection is based on only financial proposals. Contractors participating in a tender with lower bid prices to stay in business are likely to be risky from a project owner's point of view, since later on they might search for raising additional income through their claims or cutting costs to compensate thereof. As a result, there might occur extensive delays in the planned work schedule, cost overruns, serious problems in quality and increased number of litigations [5].

As a solution to these problems "qualification based selection" process should be used for selection of contractor. QBS is a procurement method in which the final criteria for selection are qualifications and demonstrated competence. Price and cost are not selection criteria, but they may be considered during contract negotiation [10]. QBS process has been used in Europe especially in USA for a long time. Using this process would enable an owner to utilize identical criteria to select the most qualified architectural, engineering and contracting firms based on:

- Demonstrated competence
- Qualifications

QBS may include other selection criteria such as:

- Experience and past performance of the firm
- Experience and past performance of assigned individuals
- Experience and past performance with desired delivery system
- Capacity to perform the work

• Financial strength and bonding capability
• Management plan, subcontractor relationships and technical capabilities
• Safety plan and safety record
• Quality assurance plan [10].

Financial proposal should not be the unique criteria for the selection of the contractor. On the other hand according to KIK documents it can cause some problems when the contractor is selected only according to his qualifications. Because by this way it may be difficult for government entities to agree on contract price with the most qualified contractor. The contract price may be higher than expected. In this circumstances the effective and efficient use of public resources will not be possible for government entities. As an alternative selection method, beside financial proposal a technical proposal which shows the qualifications of the bidders should be submitted in bidding phase. In a similar manner with evaluation of pre-qualifications, sub-creterias of technical proposals which will show the bidders qualifications should be detaily determined and for evaluating financial proposals also a weighting coefficient should be determined. But predictive factor should not be the financial proposals of the candidates. For this purpose weight of the financial proposals evaluation rate should be kept low. By this way evaluation will not only based on biddings but also it will based on qualifications of the bidders.

5. Conclusion

The effective and efficient use of public resources is important for social welfaire and development in Turkey. Therefore implementation and content of the tendering process of the public construction work is gaining importance. Existing KIK bidding and contract documents have important weaknesses in this process. Unsufficiency of the defined pre-qualifications and using of lowest bid selection method are the main weaknesses of contractor selection process. On the other hand it is clear that QBS has important advantages and this advantages should be reflected to KIK documents. The existing system should be improved by benefiting possitive aspects of the QBS system as soon as possible. But because of the difficulties which public entities may encounter such as getting together on contract price, QBS system should not be used as a unique selection method. A method which consists of evaluation of both bidders` technical proposal and financial proposal should be developed.

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