

Tender and Bidding Process in Construction Projects

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Abstract

Construction Industry plays a key role in the process of economic transformation and growth. Export of projects and services indicate a country's progress in technology and export performance. Most of the companies are versed only with engineering and technology. The decision to bid is a major financial decision because of two reasons. First, the contractor assumes substantial costs for the preparations of the estimates and the tender at the risk of not recovering them if he is not awarded the job. Second, and most importantly, the contractor commits himself to investment in the construction of the project if he wins the bid.

Keywords: *bid, estimate, funds, tender notice, pre-qualification.*

1. Introduction

Tendering is defined as the 'The process of preparing and submitting for acceptance a conforming offer to carry out work for a price, thus converting the estimate to a bid'.

The following are the aims and procedural nature of tendering;

- To select a contractor for a construction project.
- To test the current market, especially where existing contracts are of a long-term nature.
- To comply with regulations pertaining free and open competition.

Tendering is a means to an end usually a means for a contractor to win the right to deliver a construction project. However, tendering could also happen between the interface of contractor and sub-contractor; contractor and supplier, client and consultant, etc. It often, but not always, involves some form of price competition.

The rapid evolution of e-commerce in the past few years has introduced new ways for organizations to perform tendering processes and participate in biddings. The term tendering is used to describe all the actions performed by the awarding authority to produce, publish and manage tendering documents, while bidding incorporates the effort of interested organizations to win contracts by responding to tenders. In this context, the value adding functionalities related to e-commerce technologies include for example electronic publication of tenders, electronic search of tenders as well for partners and suppliers, electronic submission of biddings, electronic notification of award and so on.

Those abilities are especially important for industries, where business is performed on a project-by-project basis and in many cases by consortia formed especially for the project. This is the case of the construction sector, where timely opportunity identification and adequate consortium formation are the key factors for winning a contract. As a result the main actors of the sector, i.e. Tendering authorities, construction companies, suppliers of materials, and manufacturers can gain substantial benefits, by using these new electronic mechanisms.

Most persons, at one time or the other, have to buy or sell goods, Buying goods or services, or engaging a contractor for civil works like building roads, houses, factories is an important activity. This activity brings together buyers and sellers who are keen to find common meeting points in their dealings with one another.

Rapid advances in technology have made it unwise to rely on the proverb old is gold. A buyer may no longer find it a good policy to ignore the recent developments and to continue to use the models of equipment, others used in the past. It is always good to know what the market has to offer to meet the buyers' requirements. This is what brings the buyers and sellers into contact. A buyer wants good value for money; a supplier seeks to sell goods at a reasonable price.

2. Objectives

- Time & cost saving process.
- To reduce the inventory cost of tender process.
- The security process.
- Detail study & analysis of E-tendering process.
- To free from corruption.
- To differentiate private & public tender process.
- The use all type of tender process by using E-tender process.

3. Scope

The contract management process includes contract planning, creation, and administration. In the process, departments are primarily responsible for the first step department planning, second step contract creation and the third step contract administration. The Branch manages the second step Contract Creation for open tenders and issues purchase orders for all contracts. This second step was the focus of our review. We excluded low-value purchase orders, cheque requisitions, corporate credit card transactions, and sign-off payments, all of which are generally of lower transaction value, from the scope of this project. We excluded contract tendering activities relating to the Edmonton public library and Edmonton police service from this review.

4. Methodology

The study is primarily based on secondary data. The secondary data has been collected from various sources like internet, books on International contracting and annual reports of World Bank, Asian Development Bank, EXIM Bank, Reserve Bank of India's regulations, regulations and criteria of OCCI, which is now called as PEPC [Project Promotion Council of India]. Details regarding regulatory Frame-Work of project exports have been collected from EXIM Bank and Reserve Bank of India.

4.1. Pre-Bid Conference

After the tender documents are issued to shortlisted contractors and sufficiently ahead of the date of submission of tenders, a pre-bid conference is held by the employer/to which all the intending bidders are invited. Before this conference, the intending bidders are also encouraged to visit the site and see for themselves the site conditions, the facilities available at the site and its vicinity and examine all data on investigations etc. that is available with project authority so that the contractors have a clear picture of what is expected of them and the conditions under which the works are to be executed. In the conference, the job requirements will be clarified and contract conditions explained wherever an explanation is

sought. By this, the contractors would have a clear idea of the conditions of the contract and they will also be free to ask for clarification on any of the job requirements, design specifications etc. and the various contract clauses including their legal implications. A summary record of the conference will be prepared and sent to all the intending bidders, to whom the contract documents would have been sent, along with amendments to the contract documents resulting from this conference.

4.2 Evaluation of Bids

The first step in the evaluation of tenders is rejection of all conditional tenders and those without earnest money deposit. The acceptable tenders are thereafter evaluated. Apart from arithmetical checking, the tendered rates for individual items are compared with the estimated rates to spot out those with exceptionally high or low rates. The employer reserves the right to accept or reject any offer without assigning any reason and hence he is free to reject any tender with exceptionally high or low rates for individual items. At the same timer it is also not obligatory to reject all the tenders. The impact of such items rates to spot out those with exceptionally high or low rates. The employer reserves the right to accept or reject any offer without assigning any reason and hence he is free to reject any tender with exceptionally high or low rates for individual items. At the same timer it is also not obligatory to reject all the tenders. The impact of such items on the overall costs of work can be assessed and if the variation in the total cost is marginal, such tenders can be considered for comparison.

4.3. E- Tender

The traditional systems of procurement in government departments through manual modes suffered from various problems such as inordinate delays (approximately 4 to 6 months) in tender/order processing, heavy work, multi-level scrutiny that consumes a lot of time, physical threats to bidders, cartel formation by the contractors to suppress competition, human interface at every stage, inadequate transparency, discretionary treatment in the entire tender process, etc. Though it is known to the departments that their traditional processes are inefficient, hardly any effort was taken to improve the system for obvious reasons.

E-Tendering is a process of carrying out entire Tendering Cycle Online, including submission of Price Bid to harness Efficiency, Economy and Speed of Internet. Despite the apparent benefits of information technology (IT), many organizations have been slow to adopt e-construction and in particular e-tendering. Many companies are approaching the use of e-tendering with

caution in order to test its practical advantages and encourage age confidence amongst staff before implementation to a general concern over security and legality issues. Tendering is a practice involving a complex web of legal issues, which must be known before tendering. The unguarded use of electronic technology in electronic tendering and post-tendering project management has created contradictory effects, such as the trade of between efficiency and security. The people are unsure of the legal impact of using the existing e-tendering project management system. For this reason, industry is reluctant to conduct contracting activities. Business has traditionally incorporated many elaborate procedures into their regular business processes to seek legal protections. E-tendering systems should also include appropriate security mechanisms for increasing the system's reliability.

4.4. FIDIC Forms

FIDIC i.e. FEDERTION INTERNATIONALE DE INGENIEURS-CONSEILS (International Federation of Consulting Engineers) is an international organization based in Geneva that has been instrumental in the evolution of various standard forms of contracts used worldwide in civil engineering works. The World Bank has also adopted the FIDIC standard forms with suitable modifications for applications in the works carried out with its assistance. The key differentiator of the FIDIC based contract is the role assigned to the "Engineer" who is an impartial and independent expert who administers the contract between the parties viz. the "Employer" (i.e. the public body e.g. ULB) and the "Contractor". The conventional PWD forms used in our country did not adequately provide for the role of project management and supervision to be carried out by a consultant. The FIDIC form is eminently suitable for adoption in cases where the project management of the work is to be entrusted to an expert consultant, who functions as the "Engineer" to administer the contract. FIDIC has developed the following forms¹⁰ Conditions of Contract for Construction: These are forms used for construction contracts and are usually item rate type of contracts, although the form can also be used for lump sum contracts.

4.5. Pre Bid Meeting

Pre Bid Meeting is held at a specified place and time, in respect of relatively large works to enable prospective bidders to seek clarifications about the provisions of the bid and make suggestions to the organization/ULB (Employer) about the work and the bidding conditions. It is to be noted that non-attendance at the Pre Bid Meeting does not constitute a disqualification of the bidder. A

senior official connected with the bid process usually chairs the meeting. Minutes of this meeting are prepared along with clarifications to the bidders to respond to their queries. In case there are amendments to the bid conditions proposed at this stage ensuing from the suggestions made by the bidders or otherwise, the same are issued in the form of Common Set of Deviations (CSD) to the bidders. The minutes of the Pre Bid Meeting, Clarifications and the CSD as above need to be supplied to the bidders without delay. A minimum gap of about ten to fifteen days is usually allowed between the Issue of these minutes and the clarifications/CSD and the last date of sale of the bid documents primarily with a view to enable bidders who are attracted to the bid process on account of these deviations, to purchase the bid documents and participate in the bid.

4.6. Submission and Opening of Bids

The Organization/ULB (Employer) needs to fix a place and a specific date and time as the deadline for the submission of tenders. The Employer may, prior to the deadline for the submission of tenders; extend the deadline, if necessary on account of reasons e.g. to afford bidders reasonable time to take the clarification or modification of the minutes of Pre Bid Meeting into account in their tender. The Employer may, in its absolute discretion, prior to the deadline for the submission of tenders extend the deadline, if it is not possible for one or more suppliers or contractors to submit their tenders by deadline owing to any circumstance beyond their control. Notice of any extension of the deadline needs to be given promptly to each bidder. The tender must be submitted in writing, signed and in a sealed envelope as per stipulations contained in the Bid documents. The employer may provide to the bidders a receipt showing the date and time when its tender was received, especially when asked for. The tender received after the deadline for the submission of tender, shall be returned unopened to the bidders who submitted the same. On the due date and appointed time, as mentioned in the bid document, the Employer needs to open the bids in the presence of the intending bidders or their representative. The bidder's name, the bid prices and discount, if any will be announced by the procuring entity during opening of bids. A record of opening of bids is to be maintained. Where the bidding follows a two envelope bid submission, the first envelope of the bidders containing the documents to ascertain eligibility/qualification of the bidders and/ or technical proposals is opened on the bid submission date. The documents in the first envelope are scrutinized in due course. The financial bids in respect of those bidders who qualify and whose technical proposal meets the requirements in the bid documents are opened. The

qualifying bidders are intimated about the date on which the financial bids are to be opened.

4.7. Difference between the Public and Private Tender Process

Sr. No.	Description	Public Tender Process	Private Tender Process
1	EMD Deposit	Yes	Yes
2	Envelope system	Yes	No
3	Evolution and comparison of bids	No	Yes
4	Performance Security	After 24 months	After 18 months
5	Bank guarantee	No	5% of total contract price.
6	Form of contract agreement	Yes	Yes
7	Details of technical and administrative for work	No	Yes
8	Rejection of all tenders	Yes	Yes
9	Settlement of disputes	No any provision	Arbitrator appointed
10	Avoidance of delay	No any provision	Third Agency Appointed
11	Extension of complete projects	Yes	No. Work should be completed in time.
12	Quality control	Not check properly	Strictly check by company engineers
13	Advance payment	5% of project cost	Depend upon contractor at the interest of 12% p.a.
14	Insurance	Not provided	Provided
15	Currencies	All payment in Rupees	All payment in Rupees

16	Penalty for delay	Depends upon the Engineer in charge. But it penalty up to 500 to 2000 /- Rs. Per day.	Depends upon the Engineer in charge. But it penalty up to 500 to 5000 /- Rs. Per day.
17	Environmental protection	No any provision	Strictly follows the environmental rules
18	Wastage of material		
	Cement	Nil	Nil
	Steel	10-12%	5%
19	Safety provision	No	Yes
20	Canteen	Not available	Available
21	Temporary electric supply	Available	Available
22	Housing for labours	Not available	Available
23	Explosive material	Not permit to site	Strictly prohibited
24	Bonus to before complete the work	No provision	2.5% of cost of project
25	Complete the process	2-3 months and above	1months
26	Description of material	Yes given	Yes given
27	Fire prevention	No provision	Strictly fire prevention material available
28	Transport for labours	Not provided	Its available for all engineers and labours
29	Manpower for complete process	More required	Less required
30	Buaracacy	Possible in process	Not possible
31	Transference to process	Less	More
32	Quality of work	Less quality work done	Accurate quality work done
33	Political interference	It's possible	It's not possible

4.8. Comparison of E-Tender and Traditional Tender as Per Case Studies Attached

E- TENDER	TRADITIONAL TENDER
EMD deposit online process	EMD deposit at manually process
Comparative statement automatically generated	Comparative statement done by manually.
At any time within specified period upload document.	At not possible to upload document.
Document saves in soft copy and in safe in position.	Document in hard copy and not possible to safe at time.
Free from corruption and no chance to alter the quoted the rates.	Not possible to free from corruption and should be possible to changes quoted rates.
Paper work is minimum.	Paper work is maximum.
No deduction of tax	Deduct the tax
No need of D.D. and deposited to manually.	D.D. and deposited to manually.
Its transferring process	Its non-transfer process
Time saving process	Time consuming process
Its speedy process.	Its slow process.
No any interference of political persons.	In this chance to interfere of political persons.
Non awarded persons the EMD will be transfer to direct on his bank account.	In this process the EMD amount given after 2 months after opening of tender.

Tender not necessary to submit by hand	Tender submit by hand and before time.
Privacy of rates and other important document is possible.	In this no guaranty of privacy and to possible to lost the documents.
Environmental friendly	Paper Based
Anytime-Anywhere	Restricted Mobility
Bidding possible on Holidays and after office hours	No work in Holidays and after office hours
Automated and Accurate	Prone to human errors
Foolproof Security	Physical security
Lifelong storage on CD	Wastage of space to store
One click access to bids	Difficult to retrieve

4.9. Reasons Of Late E-Tender Process

- In meeting all members don't agree for contractor name.
- Funds not available in time.
- Election time.
- All contractors have not knowledge about the feeling the online process of tender.
- In outside the one tender filling rate is, 3000/- per tender.
- If the contractor death.
- Website possible to crash.

4.10. Software's currently used for E-Tendering Process

- Coupa Procurement by Coupa Software.
- E Bid e Xchange by e Bid Systems.
- Panacea by Panacea Software.
- Promena e-Sourcing by Promena e-Sourcing Solutions.
- Sourceit by sourceit.
- Bid Sync e Procurement by BidSync.
- Web Req by GT Management.
- Buyer Quest e Procurement by Buyer Quest.
- Procurement Software and e Invoicing by Xeeva.
- Basware Procurement by Basware.

4.11. Recommendations

- E-tender should apply at cost one lakh.
- The appoint the third party for the observation.
- E-tender process will do the with the help of private companies for security and efficient process.
- The use of the latest softwares and technology for E-tender process will be complete earlier and fast.
- For the less corruption in tender process the compulsory to all departments to apply the E-tender process for the all type of tender.

4.12. Conclusions

The traditional systems of procurement in government departments through manual modes suffered from various problems such as inordinate delays in tender/order processing tendering systems should also include appropriate security mechanisms for increasing the system's reliability which can be engulf by tendering process. From the deep study of the tendering and bidding process it may be concluded that private tender process is more accurate, time and cost saving over the traditional tender process. Political issues can be solved by adopting private tendering instead of traditional tendering.

E-tender process has number of advantages over traditional tendering process such as document save in soft copy and in safe in position, free from corruption and no chance to alter the quoted rates, paper work reduced, bidding possible on Holidays and after office hours, automated and accurate, Privacy of rates and other important document is possible. Tender not necessary to submit by hand .If in case estimation cost of E tender having 3 lakh amount which can be reduced up to 1 lakh then it will be possible to apply this method to overall system to eliminate the limitation to apply this method to any particular sector. In this help of process the change the tender and bidding process and used the technology they have the great change in the process.

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