

## Tender and Bidding 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.

### I. INTRODUCTION

Construction Industry plays a key role in the process of economic transformation and growth. As a matter of fact, construction activity not only initiates, but gives momentum to other key sectoral activities such as agriculture, power transportation, industry, health, education and the like, thus acting as a trigger mechanism and through multiplier effect it cumulatively leads to achievement of higher quality of life. It performs an important function as an integrating mechanism for a large economic then, project exports have evolved over the years, with Indian companies demonstrating capabilities and expertise spanning a wide range of sector.

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.

### II. MAIN FACTORS IN TENDER AND BIDDING PROCESS

Domestic competitive bidding is confined to the suppliers in a buyer's country. Many governments, as a matter of national policy, normally adopt this method to encourage domestic industry. Even non-government buyers quite often prefer domestic bidding; for the following reasons.

- Payment terms are easier as no foreign exchange is involved.
- It is easier to contact suppliers personally, without the need of visas and foreign Currency for visits abroad.
- Inspection visits to the supplier's manufacturing units are convenient.
- The domestic firms may offer better maintenance facilities.
- There is no need to know laws of purchase and sale of foreign companies.

When a bid is open to all suppliers, it is called 'open unrestricted bidding'. Generally, these bids are invited through advertisements to fulfill the buyers' main aim to have competitive bids. The general theory is that unless there is publicity of the requirements of the buyer, good response from suppliers may not come. Without good response, the chances of obtaining a competitive price are low. The option of limited bids is also there. Sometimes, buyers prefer to invite bids from some selected suppliers, say 15 in number, to reduce the expenditure on publicity. This is called limited bids or limited tenders.

#### 2.1 Rules and Practices

There are some good purchase practices, like rules of good conduct. A person, who observes rules of good conduct, avoids the agony of deciding every time the line of action to be followed under different circumstances. There are, of course, exceptions. Just as social rules govern our lives in daily conduct and interactions with others, rules and practices of purchase help a buyer and supplier arrive at a reasonable decision.

An advantage of estimated cost is that a buyer knows the going market price against which to compare the bids. The buyer can check if the bids

received are manipulated bids from the suppliers who may have formed a cartel, or may be trying to take advantage of the buyer's possible ignorance. Also, if the estimated cost is very high for a buyer's available resources, then the buyer may either plan for raising more resources, find an alternative product, which may be within the available means, or revise the project. All of these are very valid reasons for finding out the likely cost of the proposed purchase.

## 2.2 TRAINING STRATEGY

In order to improve the quality of safety and health in a large scale, the management level should consider a systematic and comprehensive safety approach at construction site. This approach should be clearly explained by specific procedure for each hazardous activity which has been identified in design stage. The process should be clear and understandable for everyone. Moreover, the organization should hold safety and health training program for new employees. Workers who are properly trained would make a correct decision in deal with incidents associated with their workplace.

## 2.3 Conditions of Contract

Conditions of contract state the rights and obligations of both the parties to a contract. If the conditions of contract are not spelled out in writing, the conditions of contract prevailing in the country from where the contract is issued, usually the buyer's country, govern the contract.

## 2.4. Invitation to Bid

Invitation to bid covers the publicity a buyer gives its intention to buy goods. The invitation seeks offers from suppliers. In the law of contract, a contract comes into force when an offer is accepted. Thus, a supplier offers to supply goods, and a buyer accepts the offer. The acceptance results in a contract. Therefore, a buyer invites offers; it does not offer to purchase goods at a stated price. A bidder is free to withdraw the offer before it is accepted.

## 2.5 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.

## 2.6 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 time 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 time 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.

## 2.7 PERSONNEL SELECTION OF BIDDER

The first requirement in a bidding process is to invite suppliers to bid. It is important that suppliers come to know of the demand for their goods and the name of the buyer. The method of invitation has to be effective to reach a large number of suppliers. The common methods of invitation to bid are:

- Publication in newspapers, which have a large circulation.
- Publication in journals of special interest.
- In international competitive bidding, bringing the invitations to the notice of embassies of foreign countries.
- Letters to firms who have come to know of the likely purchase and have made enquiries.

The Invitation to Bidders is a brief notice. It gives only the essentials of the purchase to be made. Further details are given in the bidding documents. It also states the nature of goods required the place

from where bidding documents may be purchased, price of bidding documents, the last date for submitting bids, and the amount of bid security.

### 2.8 Benefits of Prequalification.

The pre-qualification process enables contractors, who may be insufficiently qualified on their own, to avoid the expense of Bidding or to form a joint venture, which may give a better chance of success. The assurance that competitors which lack the necessary qualifications will be excluded from bidding thus encourages leading contractors or suppliers to bid. The well-qualified firms may also price their bids more competitively with the knowledge that they will only be competing with other qualified bidders meeting realistic minimum competence criteria.

## III. Funding Construction Projects

### 3.1 Plant and Equipment Financing

Construction firms usually buy most of their basic equipment new. However, a large portion of equipment needed is leased. Leasing is facilitated by a variety of financing packages offered by the equipment leasing industry. There are two major categories of leases: the operating (or service) lease and the financial (or no cancelable) lease. The operating lease enables the contractor (leases) to make use of the asset for a period of time paying a rent at specified regular time intervals. Ownership remains with the lessor, who has the responsibility for the maintenance and insurance of the equipment. Under this arrangement the lease may often be cancelled by the lease on short notice with minor or no financial consequences. Under this type of lease, the contractor avoids the risks associated with the operation of the equipment and the training and maintenance of a service staff. He also avoids tying up his capital in equipment that may be, used only for a short time. Furthermore payments for operating leases are reported as current business expenses and do not affect the current assets and liabilities of the firm.

Most leasing in international projects is provided by national companies with the transactions subject to local laws and regulations. International leasing companies differ from the national companies in that they are more involved in equipment financing than leasing. They, offer a variety of alternative packages and can make equipment financing a flexible and effective financial instrument for specialized and expensive equipment. In general, national companies offer the operating type of lease, while international companies deal in the financial type. Banks also have an active role in leasing activity.

### 3.2. Commercial Banks

Commercial banks have supported the international expansion of the construction industry. They have assumed some of the associated risk in the expectation of substantial benefits from its cooperation with international construction firms. At the same time, international contractor are much in need of the banks' service. In developing countries encountering increasing difficulty in financing their project, banks have assumed a new role of aiding contractors in arranging project finance and to provide a series of direct services to international contractors.

The services provided by commercial banks are invaluable to construction companies working in international projects specifically, banks require:

- i. General information about the financial and other background of the company.
- ii. Specific ratios and figures illustrating the company's financial position
- iii. Specific information about the purpose of the under extension financial services.

The bank may also want to know what project and what specific financing requirement the credit will be used for. In addition, it may ask how the contractor plans to repay the loan, i.e., what his sources and timing of repayment will be. For this reason, the contractor has to prepare justified cash flow projections. Once the credit is tendered, the degree of supervision of a project depends on the bank policy.

After receipt of a loan or credit, the contractor should maintain a good relationship with his bank. For this purpose, he should keep his commitments, not exceed the line of credit limits and be prompt in his repayments. He should not add new loans from other sources without the bank's consent, and periodically discuss his financial needs with his banker. In his operations, the contractor should try to maintain or increase his profits. Otherwise, the bank's financial services may be cancelled due to poor management performance. Finally, liquidity should not be decreased because banks perceive such a development as a potential threat to the repayment of loans.

### 3.3 RISK ASSESSMENT

Risk assessment must be done by own employees in the work therefore, if the experience and expertise of the worker is not enough; the company must provide the competent person to assist them. There are different quantitative and qualitative risk assessments that we have to choose suitable one regarding to the project and site condition

### 3.4 Facilities Provided by Regulatory Bodies:

### **I. Non Fund Based**

- Bid bond
- Advance payment guarantee
- Performance guarantee
- Guarantee for release of retention money
- Guarantee for raising funds overseas
- Supplier's credit

### **II. Fund Based**

- Providing medium and long term finance for exports typically: 1yr to 15yrs.
- Lines of Credit
- Working Capital
- Buyer's Credit
- Export project finance
- Overseas investment finance
- Overseas equity participation
- Term Loan for EOUs [Export Oriented Units

### **IV. General Instructions for Online Bidding**

- The complete bidding process will be online, notifications, clarifications Corrigendum etc. will be published online only. Contractor shall follow the steps to submit the bids online, as per the guidelines to submit bid online which can be downloaded from website "<http://pmgsytendersmah.gov.in>". The links "help for contractors", "Bidders manual kit" and other help links are available on website "<http://pmgsytendersmah.gov.in>" for the help of contractors.
- The interested bidders should download the tender and related documents from the website "<http://pmgsytendersmah.gov.in>" well before the download end date and time; otherwise after download date and time deadline bidder cannot download the tender and cannot take part in the tendering process though there is time duration available for submission of tender.
- To participate in the bidding process, the bidder has to procure 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000. This certificate will be required for digital signing of the bidding documents. Bidders can procure digital signature certificate from any of the approved vendors (CCA). Bidders, who already possess valid Digital Certificates, need not procure new Digital Signature Certificate. With valid DSC, bidders have to enroll him on website "<http://pmgsytendersmah.gov.in>" by creating login user ID and password.

- The bidders have to submit their digitally signed bids online in electronic format. The bids without digital signature will not be accepted. No bid proposal will be accepted in physical form.
- Bids will be opened online as per time schedule mentioned.

### **4.1 Government Tender Process**

In most countries they are required by law to publish or announce their tenders in one or more public media such as newspapers, trade magazines and more and more, on their own websites. For sourcing purposes, Government Departments usually keep a list of approved suppliers which is used to invite bids.

Government and local authorities may ask for "Expressions of Interest" to allow other suppliers to be added to their list of potential suppliers before they issue formal documents. Some Governments are now issuing electronic tenders but it is still regular practice for them to ask bidders to submit their bid in hard-copy form.

### **4.2 The Private Sector Tendering Process**

Both listed and non-listed companies have more latitude to use a customized sourcing process that suits their industry and their organization. They are not bound by the requirement to spend a given budget in a defined financial year and are therefore free to schedule their buying process to suit business cycles. Private companies wishing to be seen as ethical and honest adopt what is accepted internationally as best practice. This is standard practice in government and generally regarded as the fairest and most transparent way to award contracts. Private companies are often reluctant to disclose their weightings in advance. They are also not bound to publicly publish details to which the contract was awarded or even to formally advise the unsuccessful bidders.

As a public procurement practitioner you are a public servant. You manage public funds, are bound by an ethical code of conduct, and are accountable for what you do or fail to do when managing those funds.

### **7 Differences between Public and Private Sector**

Public sector and private sector procurement organizations are designed to acquire goods and services. The main difference between these two types of organizations is the purpose for acquiring those goods and services. One is focused primarily on a social benefit, the other is profit centric.

Private sector procurement activities are for supporting the principal business objective of a company, which is to make a profit. This does not

rule out the fact that private entities may also seek social benefit; however, it is not their primary business objective. In the public sector, the two main reasons for acquiring goods and services are: (i) for supporting government operations, and (ii) to provide public services.

Source of funding is another fundamental difference between private sector and public sector procurement. While private sector procurement is funded by owners or shareholders of the company, funds used in public procurement are primarily from taxes and/or grants and loans obtained by the government on behalf of the country.

Public sector procurement is governed by the public procurement rules. In most countries, there is a law that governs the procurement of goods, services and works with public funds. Public procurement must also adhere to certain principles. The process should be open to public scrutiny, depending on the procurement method used, and any confidentiality agreement stemming from the particular procurement method used. sometimes it covers only the fundamentals, leaving the details for further development in procurement regulations, guidelines and manuals, which should expand on but not contravene the public procurement law

## V. FUTURE WORK AND APPLICATIONS

- . Difference between State tender and Centre tender.
- 2. Difference between State tender and Private tender.
- 3. Difference between PWD and C-PWD tender.
- 4. Get efficiency to tender and bidding process.
- 5. Importance of E-tender process.

## VI. CONCLUSIONS

Project Exports has helped Indian companies and Government Of India for earning relatively more Foreign Exchange, because it's volume and value is huge compared to other businesses. Indians are benefited as they interface with the latest technologies, earns more money therefore living standard improves and leads to overall development of people. Success of the project starts with successful tendering and bidding process. Tendering and bidding is the first step in any kind of construction contracting. The study analyzed the peculiarities of international construction business and examined the different aspects of tending and bidding international projects. The study is based on thoroughly analyzing the word bank document, ADB documents and the guidelines on project exports set by Reserve Bank of India.

## REFERENCES

### Journal Papers:

- [1.] An Analysis of the Selection of Project Contractor in the Construction Management Process Xiao Hong Huang Shandong Lumei Construction Cost Consultancy Co. Ltd., Jinan 250031, China
- [2.] Andrews, R. and Boyne, G.A. (2009) Size, Structure and Administrative Overheads: An empirical analysis of English Local Authorities. *Urban Studies*, 46(4), 739-759.
- [3.] Baker, E. and Champion, R. (2008) *Tendering and procurement in construction*. Coventry: Royal Institution of Chartered Surveyors.
- [4.] Barton, R.F. (1969) an Experimental Study of the Impact of Competitive Pressures on Overhead Allocation Bids. *Journal of Accounting Research*, 7(1), p116-122.
- [5.] Chao, L. (2010) Estimating project overheads rate in bidding: DSS approach using neural networks. *Construction Management and Economics*, 28( ), 287-299.
- [6.] Estimating future bidding performance of competitor bidders in capped tenders Pablo ballesteros-perez, m. Carmen gonzález-cruz b, Marta fernández-dieg.
- [7.] Gandhi, K. (1996) Controlling Overhead Costs. *Journal of Management in Engineering*, 12(4)18-22.
- [8.] Griffith, A.; Knight, A. and King, A. (2003) *Best practice tendering for Design and Build projects*. London: Thomas Telford.
- [9.] Hackett, M., Robinson, I. and Statam, G. (2007) *Procurement, tendering, and contract administration*, Oxford: Blackwell.
- [10.] Risk and price in the bidding process of contractors Laryea.S. & HUGHES, .W. (2011) Risk & Price in the bidding process of contractors. *Journal of construction management & engineering* 137(4).pp.248-258.
- [11.] Tang, S.L., Ming, L., and Chan, Y.L. (2003) Achieving client satisfaction for engineering consulting firms. *Journal of Management in Engineering*, 19(4), pp.166-172.