



Studying the Present Contract Model and Causes of Delay in the Model

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Abstract-Public works are done at the cost of public funds and it is done for the public itself but due to delay in contract execution a lot of money is drained from the public account which is a great loss. There are various reasons for projects getting delayed in public sector and is the biggest problems faced by the construction industry today. One of the important reasons for delay in project is the procurement procedure followed. Studies have been made on the reasons in construction delay from the client, consultant and contractor point of view using statistical formulae but an empirical study needs to be done on the whole procurement procedure followed in the public sector. The general flow of present procurement model followed is project idea, its preliminary report, detailed project report, technical sanction, conformation of funding, preparing of tender document, bidding process and selection of contractor. This process though important is mainly time consuming. If this process is redesigned than issues related to delay can be reduced. The time taken for sanctioning of a project is too lengthy because the project report has to be passed by every concerned department. The estimates at the sanctioning stage and the actual cost of work at the time of execution are different rather are increased substantially which leads to cost escalation. The basic principle of fair competition i.e. to award the contract to the lowest bidder needs to be changed with alternative method. Issues related to cash flow, billing, dispute resolution board needs to be addressed. The aim of the paper is to study the present contracting model. Based on the study giving recommendations to the present contracting model and proposing a new model. Resulting in reducing the procedure time, selecting appropriate contractor, avoiding disputes and saving the public money.

Keywords- Contract Delay; Procurement Procedure; Time Overrun; Cost Escalation

I. INTRODUCTION

Time is the essence of contract. The inability of completing public sector civil engineering projects in time and within the budget is one of the chronic issue now a days. New utility services comes with new service need and increasing standard of living. Public works like roads, railways, bridges, ports, etc. are done at the cost of public funds and for public itself but due to delay in contract execution a lot money is drained from the public account which is a great loss. With delay in projects come the unhealthy conditions as well which has to be faced by the public. Hence it is necessary to reduce

the delays in public sector projects and make appropriate use of public funds.

Public sector civil engineering projects are seen not getting completed in time and within the allotted budget. One of the example is, Bandra-Worli Sea Link which was planned for Rs 300 crore and with completion date of 4 years but actually cost went up to Rs 1600 crore along with delay of 5 years. Such example are common now a days, there is need to study the pre contractual procedure followed so as to reduce the delay in administrative procedure and cost escalation issues. The study of the is on the procurement procedure followed in the public sector for civil engineering work. The aim is to prepare existing contract model and find the causes of delays in the model

II. OBJECTIVE

The objective is to study the procurement procedure followed by Municipal councils in Pune region for public civil engineering works. Preparing a model of the existing system and find the causes of delay in it.

III. NEED

There are many research work available on construction delay focusing on execution delays alone. There is need to study the procurement method followed in the public sector civil engineering works. There are many issues related to time overrun and cost escalation in the public project, they can be reduced by studying and analyzing the procurement method followed for these works.

IV. LITERATURE REVIEW:

Rarer are the studies based on completed projects. As a result, the extents as well as the causes behind delays and cost overruns have remained under-researched (1). The organizational failures are significant causes of delays and cost overruns in public sector projects.

Claims occur due to disputes between the parties where the method of disruption claims and delay will be fixed. This will avoide the conflicts later, since the negotiation will be binding on the parties in contract.

The fair competition view in the procurement system has lead to the selection of lowest bidder in awarding of contract. The bidder may not be capable of carrying out the

work efficiently in future leading to time and cost overruns. The lowest bidder win method must be changed with an alternative method.

The delays can be reduced with less pain if areas like detailed engineering is performed before detailed construction estimate is prepared, developing good execution drawing, more engagement of consultancy for better design and reducing time at execution date (4).

The five most important causes of delays in construction projects were found to be: change of work scope; delayed payments; poor monitoring and control; high cost of capital; political instability/insecurity. Recommendations were made for improved project management; change from the traditional contract type to the design-build type; and improved cash flow on the part of the client so as to reduce payment delays (6)

V. RESEARCH METHODOLOGY

Studying the literature related to the topic. Collecting the data like tender document, standard form of contract, discussion with the experts in the contract field. Preparing a model based on the information gathered from these sources. Identifying the causes of delay in the model.

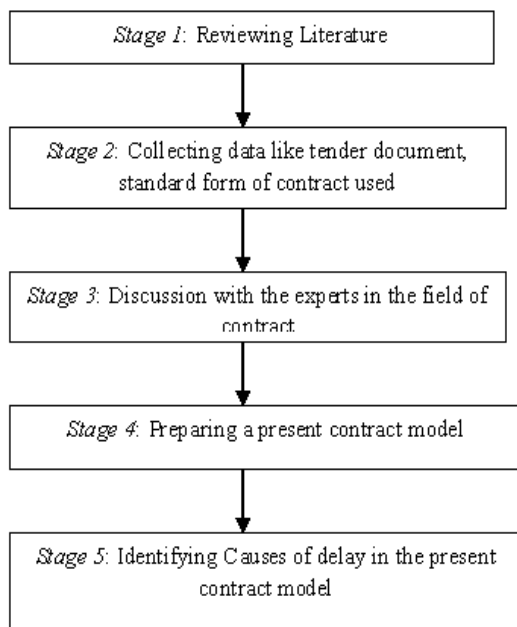


Fig. 1. Flow Chart of Methodology

VI. FINDINGS:

Initially when the need arises of providing new service, the respective department proposes the preliminary project report in front of the council. The estimates prepared at this stage are tentative estimates. Once it is kept in front of the council a resolution is passed regarding the proposed work and first reading in the council takes place. If the proposed work is accepted in the first reading than it is taken to second reading where the work gets conformed from the council. If the

proposed work is not accepted in the first reading than it goes out of the process. Once the conformation has been got from the council it is send for preparing a detailed project report. Once the detailed project report is prepared it is send to town planning department for approval of plan and Maharashtra Jivan Pradhikaran or Public Works Department for approval of technical sanction and estimates. These two activities go hand in hand. After passing through these departments than the town planning department checks the provision of work, type of work and then selects a government scheme suitable to the work. Time consumed only for sanctioning as per the scheme, is around 3 months. Once the funds are arranged the work proceeds for tendering process. Time consumed for clearing stage 1 is around 9 to 10 months.

Tenders are called upon and bidders are invited for bidding. Once the bidders are short listed their offer has to be selected within the validity period. Validity of bid is the certification from a bidder of the period of time their bid can be considered valid. After this period, the bidder is at liberty to change their bid price if the contract is not signed by the last date of the bid validity period. Bid validity period is the period within which a bidder offer is considered legally binding. After this period, the bidder is at liberty to change their bid if the contract has not been signed. If validity period is crossed without any action than the tenders are to be called again. If the bidder's offer is accepted than the work proceeds to selection of contractor. While selecting the contractor his bid capacity is checked and then only work is given to him. Once the contractor is selected work order is issued to him. Time consumed for clearing stage 2 is around 2 to 3 months.

Once the work order has been got by the contractor he starts to execute the work. The payment stages are fixed in the contract. Stage wise payment is done to the contractor. Whenever any disputes arises while execution of the work, these disputes are taken to the dispute resolution board. The decision of the dispute resolution board is binding on the parties in contract. The contractor gets benefit if the price level rises or falls in the period of execution of the work but this is not applicable to small works where the completion period is less than eighteen months. The contractor gives the monthly progress report of the work to the authority. The bills along with the material testing report are submitted as well.

The model has been divided into three stages for better understanding:

- Stage 1: Administrative Approvals and Fund Raising (Time consumed is around 8-10 months)
- Stage 2: Tendering Process (Time consumed is around 2-3 months)
- Stage 3: Execution of the Work

Following flow charts represents the present model of contract followed in general for public civil engineering works:

Fig. 3. Flow chart of stage 2 of the contract

Stage 1: Administrative Approvals and Fund Raising (Time consumed is around 8-10 months)

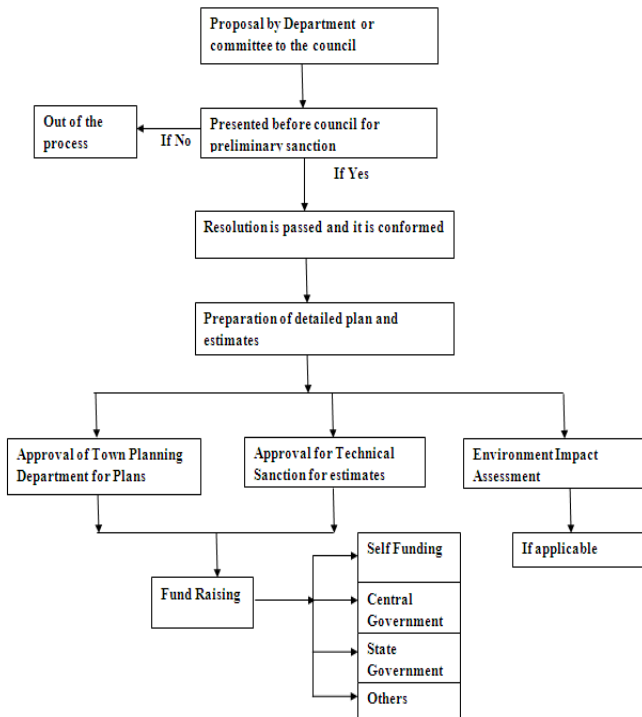
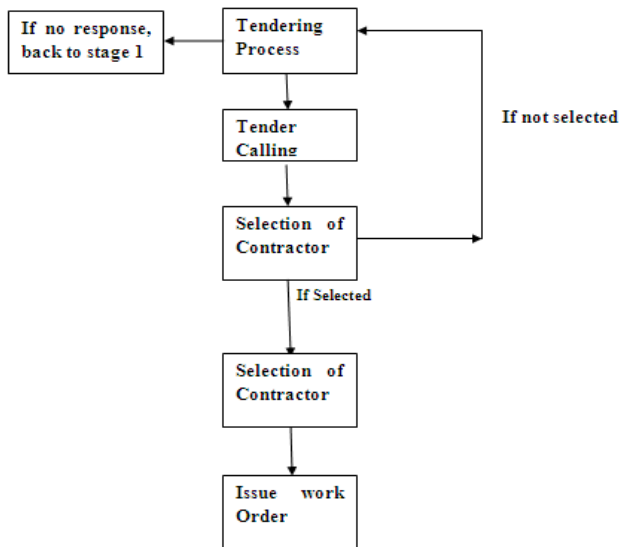


Fig. 2. Flow chart of Stage 1 of the contract

Stage 2: Tendering Process (Time consumed is around 2-3 months)



Stage 3: Execution of the Work

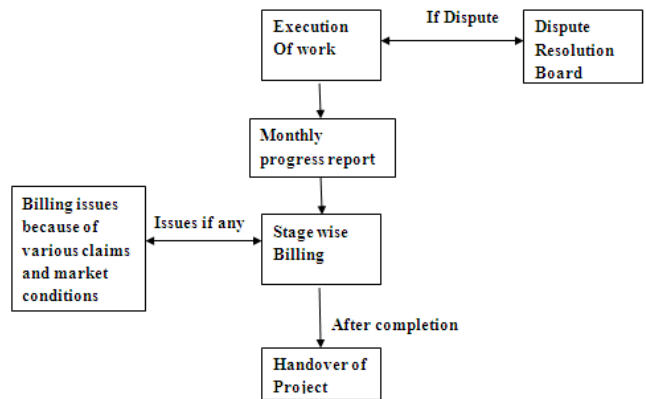


Fig. 4. Flow chart of Stage 3 of the contract

VII. CONCLUSION:

The delays can be categorized into three categories as system delay, contractors delay and delay from social elements.

A. System delay

The time consumed for administrative procedure is around 6-7 months. this includes first proposal of the work from department to sanction it from town planning and MJP or PWD department. Sanctioning of funds from various available schemes takes around 3 months. So here itself before tenders are called time consumed is around 9-10 months. Hence the detailed estimates prepared while sanctioning may differ at the initial stage before calling of tenders itself. District Schedule Rates are released in the month of March-April and if tenders are called around this period there is no response to the tender process and then the process has to be started again from estimate preparation stage and again sanctioning the work. Many a times the contracts are not signed within the validity period. If they are not signed within the validity period than bidder is free to change his rates and tenders are to be called again leading to cost escalation from the initial estimated cost. The tendering process is based on fair competition, hence lowest bidders are selected. Many a time's lowest bidder is not able to carry out the work and work stops adding to delay. In this situation a new contractor may be appointed increasing time and cost of the project. From tender floating to issuing of work order around 2 to 3 months time is consumed. The bid capacity of the bidder is checked after the bidder has submitted for the work. The contractor does not get his bill as per the stages in the contract this leads to stopping of the work

from contractor adding to delay and time overrun. He does not start the work unless his bill is paid by the public authority. For billing purpose still the hand written measurement books are used which is very tedious to fill up and lot of time is consumed which delays the billing procedure. Dispute resolution board consist of the members form the working committee of the project and contractor is bind to listen to this committee in case of any dispute arises.

B. Contractor's delay

The tendering work is based the principle of fair competition. Generally the lowest bidder gets the work. These criteria many a times make lots of problem during the execution of work. Availability of the material in the market at the expected cost, is not assured, hence many a times the work cannot progress further or contractor demands price escalation. The contractor may not have good credit than he is likely to suffer due to rate fluctuation from the market. Ego problems of the contractor i.e. in the competition the contractor rates the bid at low rates which cannot be expected. This may be because of (i) his need to get work; (ii) not allowing a new competitor to get into the competition;(iii) attitude of the contractor towards the work. Cash flow issues of the contractor. Contractors take loan against the work order, if the billing is not done regularly than contractor may go towards bankrupting. Banks make their attachments to the bills of the contractor leaving contractor without money to carry out the further work. Even though the work order is received, the contractor does not start the work, this issue must be addressed. Since the time consumed from floating of tenders to issuing of work order is around 2-3 months, where contractor is at loss because of changing market condition.

C. Delay from Social Elements

Social elements like right to information from activist, disputes arising from land acquisition , court matters, pressure group activities and act of god affects the progress of the work adding to delays.

VIII. FUTURE SCOPE OF THE WORK

Present work has identified the procurement model of the public sector civil engineering work followed. Further work can be done by proposing new model which will help in reducing time overrun and cost escalation issues.

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