E-Procurement in Government of Andhra Pradesh, India

Abstract

The Government of Andhra Pradesh (GoAP) has implemented many statewide e-Government applications since the year 2000, when the Central Government of India enacted the IT Act of 2000 to provide legal recognition to electronic transactions. As a part of these initiatives, GoAP has set up an E-Procurement Marketplace, linking government departments, agencies and local bodies with their vendors. The main objectives of the e-Procurement initiative are to: reduce the time and cost of doing business for both vendors and government; realize better value for money spent through increased competition and the prevention of cartel formation; standardize the procurement processes across government departments/agencies; increase buying power through demand aggregation; provide a single-stop shop for all procurements; allow equal opportunity to all vendors; bring transparency and ultimately reduce corruption.

Application context

The GoAP procures goods, services, works and turnkey contracts worth $ 2.0 billion every year. This procurement is done centrally through a single unit, as well through individual Government agencies who manage their own procurement needs. Procurement processes are governed by the guidelines of the GoAP and sometimes of external agencies like the World Bank, which may be funding a project.

Prior to the introduction of an e-Procurement platform, procurement in Government departments was carried out through a manual tendering process. The complete process required a long chain of internal authorizations and scrutiny (at times involving several departments), several visits by suppliers to departments, and the generation of reams of paper-based statements and evaluations. The manual tender system was suffering from the following deficiencies:

i. Discrimination and delay in issue of tender schedules to suppliers: Govt departments control the issuance of tender documents to the bidders, after verifying their applications. There existed an element of subjectivity and discrimination in this process, in addition to delays in the preparation of tender schedules.

ii. Cartel formation to suppress competition: Through dubious means, the participating bidders would gather the list of prospective bidders for a procurement request. They would use this information to lobby for formation of syndicates or cartels and bid at higher quotations.

iii. Physical threats to bidders: In regions plagued by factions and/or Mafia groups, genuine bidders were physically threatened and prevented from submitting their bids. The bidder or his agent had to risk their physical safety to submit bids in the tender box placed in the office of the tender inviting authority.

iv. Tender Boxes at Multiple locations: To counter the menace of contractors’ cartels and physical threats to bidders, some Government Departments started keeping the tender boxes at multiple locations. This practice was putting departmental officials who had to collect the tender boxes after closure of tender submission time at risk. Physical transportation of tender boxes from multiple locations to a central point also proved to be a risky proposition in such an environment.

v. Tampering of tender files: For the purposes of evaluation, the bid documents are transported across the administrative hierarchy, which introduces the risk of tampering or loss along the way. The transportation of bid documents, manually and through surface mail, is also a time consuming activity.

vi. Delays in finalization of tenders: Red tape, lack of transparency, and manual movement of files across the administrative hierarchy was resulting in inordinate delays in the finalization of tenders. These delays were contributing to cost and time overruns for the projects.
vii. Human interface at every stage: The manual system exposed the departmental personnel to the bidders at every stage of the process. Such repeated contact between bidders and departmental staff could lead to subjectivity, favoritism and other undesirable practices.

viii. Lack of Transparency: Procurement is considered a sensitive function, with all related information tightly controlled and closely guarded by government departments, resulting in a severe lack of transparency in the entire process. This lack of transparency leads to misinformation and a lack of trust in the system by the bidders, media and the citizens.

A New Approach

The severe shortcomings in the manual tender system had an adverse effect on the reputation of Government departments. Delays in the finalisation of suppliers for materials and services for government projects had crippling impacts on the completion of projects and delivery of services to the citizens. A cabinet sub-committee on tender reforms instituted by GoAP in the year 2000 recommended the creation of an e-Procurement market place. This would facilitate online tendering based on Internet technology to provide ‘any where any time’ access to the bidders for participating in tendering.

Automation of the procurement transactions reduces human error, enhances the integrity of the data, brings in transparency to the Government procurements and facilitates standardisation of processes.

The entire e-Procurement process was designed to avoid human interface i.e., supplier and buyer interaction during pre bidding and post bidding stages. The application ensures total anonymity of the participating suppliers, even to the buyers, until the bids are opened on the platform. The e-Procurement application provides automatic bid evaluation based on the evaluation parameters given to the system. These improved processes have eliminated subjectivity in receipt and evaluation of bids and has reduced corruption to a significant extent.

To bring in transparency in e-Procurement, tender documents containing all details are hosted on the web site. The documents can be downloaded by the interested suppliers free of cost, from the day of publication of a tender. Suppliers are no more dependent on the officials for various details. At any time in the procurement cycle, any person associated with the transaction can check and know the status of the transaction. This saves time and effort involved in finding out the status of a purchase order, besides enabling better planning of inventory.

At the outset, an effort was made to standardize the procurement processes and forms followed by various departments especially for public works tenders. Today, all the departments follow common tendering process and forms for works tenders. These processes have been re-engineered to further improve the efficiency and curtail subjectivity in tender evaluation on the part of the department users. A similar exercise is underway for products as well.

Implementation Challenges

- The first challenge was to arrive at a sustainable business model with proper implementation strategy: It was decided to implement e-Procurement in a Public Private Partnership (PPP) model wherein the private partner would bring expertise in technology, invest upfront in setting up the exchange and recover the costs by charging the user departments for completed transactions.
- The second challenge was to ensure interdepartmental coordination, as e-Procurement centralizes the processing of tenders and touches several departments located in different parts of the state. A high level Steering Committee (Project Implementation Committee) chaired by the Chief Secretary of the state, comprising the Secretaries, Heads of all the participating departments and representatives of the private partner was formed to promote coordination.
- The third challenge was Change Management as the implementation involved adoption of new
ways of doing things for a variety of stakeholders. The various steps taken to manage change with the Stakeholders included:

- Meetings held by the Chief Minister on regular basis to monitor the progress. Procurement targets were fixed for each participating department and were monitored closely.
- Project Champions were identified within each department. Core groups were formed in the user departments to chalk out a strategy for implementation within the departments.
- The CIOs functioned as a bridge between the user departments and the technology experts i.e., service provider and acted as project champions within their department driving the implementation and the change management process.
- The stakeholders were involved in the detailed ‘As-Is’ and ‘To-Be’ process studies.
- To effectively communicate the objectives and benefits of the project, training and workshops were conducted for both the department users and the suppliers.
- The service provider runs a strong and committed call centre type help desk on a 24X7 basis to record and address all the issues of the users.
- **The Fourth challenge was resolving the security and authentication** issues of the platform. Stakeholders have to be completely convinced that the transactions on the platform are secure. The eProcurement solution was designed with extensive security features to help ensure that all activities are logged, no unauthorized person has access to data, all sensitive data is encrypted, and that the system can be restored in a minimal time in case of a disaster or system crash.

**Benefits and Costs**

The initiative has transformed the procurement process in government departments. The automated processes and work flows have **improved internal efficiency within the departments; shortened tender cycle times, eliminated subjectivity in the evaluation of tenders with system based auto bid evaluations, and have reduced corruption.**

- **Reduction in tender cycle time:** In the pre e-Procurement era, the departments used to take 90-135 days for finalization of high value tenders. The tender cycle time has gradually come down to an average of 42 days over a period of one year and further reduced to 35 days at the end of the second year. There is greater accountability since the electronic records/documents can be retrieved at any given time and all the activities of a system user are logged in the system.

- **Reduction in opportunities for corrupt practices:** The e-Procurement system allows ‘any where’ and ‘any time’ access for bidders and suppliers from the Internet. The entire e-Procurement process has been designed to eliminate the human interface i.e., supplier and department interaction during pre bid and post bid processes has been minimized. The automatic tender evaluation functionality has reduced subjectivity in tender evaluation and helped to curb opportunities for corrupt practices to a significant extent and increased the accountability of procurement officials. In terms of transparency, any supplier or an ordinary citizen can get information about tenders which are live on the platform through a search engine on the home page. A supplier participating in a tender knows the list of other participating suppliers, the documents furnished by his competitors, price quotations and the evaluation result, as soon as a stage is completed by the departments in the system. Short information on the status of tenders and award values will also be available to any citizen accessing the web site.

- **Cost Savings:** One way to estimate cost savings is to compare the percentage discount of Tendered Contract Value over the Estimated Contract value for service contracts awarded before and after the implementation of the e-Procurement system. Tenders processed through the e-Procurement platform in the pilot phase during 2003-04, the first year of the initiative, yielded a reduction of 16% in the quotations in comparison to the previous years when the procurement was manual.
- The project encourages bidders to participate in government tenders. Supplier participation has increased from an average of 3 per tender in conventional mode to 4.5 in e-Procurement mode. The cartels are eliminated and even small and medium suppliers are now able to bid, as the platform facilitates any-where any-time bidding. The departments have reaped significant cost savings of an average reduction of 20% in cost for the procurement transactions done through the exchange during the year 2003-04 and 12% in 2004-05 due to a competitive environment.

- There is also a substantial reduction in the advertisement costs in the press media, as e-Procurement tender notices were shortened to contain only basic information on the name of work, estimated costs and the URL of the e-Procurement site. There has been a 25% saving in the column space used, resulting in savings of approximately $0.56 million in a year.

- Transparency in the bidding process and in the system of automated tender evaluation through smart forms with parameterized qualification criteria has reduced subjectivity in the tender award process and reduced corruption. The MIS feature in the system reveals data on government procurements instantaneously to the bureaucrats and ministers. Besides, it has made a visible social impact, as the citizens are assured that government procurement is conducted in a transparent manner, saving taxpayers’ money.

- **Costs of implementing the system:** As per the agreed business model, the private partner has invested upfront in hardware and software for establishing an e-Procurement exchange for GoAP and there are no costs to the government on this project.

- The government has incurred expenditures on hosting charges and transaction fees on the completed transaction to the Private partner during the pilot period. However, in the rollout phase a new business model was evolved to shift the burden from the government to bidders, with every participating bidder paying a transaction fee, with a maximum cap. The transaction fee structure payable by a bidder is set up to be less than the tender fee charged in the manual tender system.

### Key Lessons

- **The support of political leadership and the formation of a high-powered steering committee** (project implementation committee) with a mandate to take decisions on all issues were important factors for successful implementation of the e-Procurement project.

- **Insistence on a single mode of bid submission through the e-Procurement platform** was a decisive factor in the adoption of the system by suppliers.

- **A participative design process** that involved workshops attended by department users, suppliers/contractors was used to draw user requirements. Subsequent training of users was a major factor in developing the application to the satisfaction of users.

- **The pool of CIO's from various government departments trained at IIM-A, acted as change agents in implementing e-Procurement.** The pace of implementation accelerated with Chief Information Officers from different domains taking over as project champions.

- **Implementation needed enormous efforts in change management.** The users were slow to adapt to the changes in initial period but the project ramped up once the users became comfortable with the new system.

- **The selected Application Service Provider (ASP) business model under Public Private Partnership** was helpful in scaling up the transactions during roll out, as the private partner has resources to meet the challenge.

- **A rational and affordable Pricing model** based on value and number of bids per tender is also very important for sustaining the e-Procurement initiative. Cost to government with ‘No Cost’ to supplier in the Pilot phase, and Cost to supplier with ‘No Cost’ to government departments in the roll out phase, facilitated easy acceptance from suppliers in the early stages and speedy roll outs to government departments in the later stages.

- **Committed project teams from both the service provider and the Government, 24X7 help desk, strong security features, deployment architecture and MIS** have contributed to the overall
success of the e-Procurement platform in AP.

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