



Technology Brings Pace Limiting Cost Overruns

Every individual, organization and nation are engaged in the process of procurement as it engulfed the entire economic activities for sourcing of goods, services, manpower and funds. It indicates the importance of dependence on others. Self-reliance could be a medieval concept. Procurement is not just only buying and purchasing but a complete philosophy with a strategic process of acquiring of a complete cycle of economic pursuits. It is the only fiscal pillar whose careful handling is a surety to prosperity. The success of any procurement system directly depends upon the level of trust amongst its functionaries and the absence of trust brings into regulations, authority and procedures giving birth to delay, ultimately more cost. Our Procurement system is over loaded with rules and regulations and is a victim of delays and corruption completely oblivion to the reality that such mandates are not an end in themselves but are tools to mindful quests by people as these are prone to manipulation. Such legalities must be strict for safety with liberated guidelines for advancement.

The basic procurement system could be that simple for instance put money in pocket, go to market, select goods needed, ensure the quality, negotiate price, make payment and back. It hardly took 10 minutes and rest of the time was spent on commute. The best quality product at the least price as someone trusted someone but it is not always so simple. There are all sizes of projects involving procurements of huge materials and enormous services, with heaps of documents, vetting by hundreds of people, passing through the intricacies of regulations, demanding transparency, audit, fear of accountability/investigation, satisfying these procedural requirements need more time and more cost. When culture and society are weak rules multiply and when culture and society are strong trust simplifies. Could all these formalities save time and bring transparency? Possibly no, as no one trusts no one. All this brings into the concept of Smarter Procurement Systems.

Scenario at Home

Under the present procurement prevailing system there is no value for time. Every project in the public sector is a prey of delays. These abnormal delays cause huge cost overruns. Bhasha Dam and Karachi Bulk

Water Supply K-IV Projects are vivid examples of deadly limping projects where cost overruns reached from Rs 800 billion to over Rs 3 trillion and from Rs 25 billion to Rs 172 billion, respectively, and yet with no final completion dates in view. These are the classic casualties of red tapism, passing the buck and delayed decision making. Public sector procurement system is ripe to undergo implementation of E-Procurement systems. The basic principle of public procurement system is-ensuring fair competition with transparency and maximum value for money.



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We all know that manufacturers of all kind of goods at local and international level are making products of good, moderate and prime quality. A product, with the agreed or comparable specifications, could be of high and low performance level. Under an open bidding system, it is generally observed that manufacturers with low performance goods win the contract due to its low price. Under the system it is difficult to award tender to non-lowest bidder where technical bids are opened before financial bids. However, rejecting the lowest bid with conditions like "Responsive, Substantially Responsive, lab tests, etc.," are problematic ventures inviting court cases, with substantial delays. It usually happens in public sector projects.

Project Delays: The country has reached a stage where poverty level is around 47 percent and burden of total debts is over Rs. 80 trillion. Such a gloomy situation is not by accident but purely on account of callous human factor. Just a cursory look at the ongoing public sector projects substantiates the point of self-collapse where the people responsible for handling the affairs have no value for deliverance. Flaws in the present system have been playing unimaginable sufferings to the people.

Almost each and every project is delayed with geometrical progression causing cost over-runs with multiplication.

Triggering horrible collateral losses as delay in completion of the project deprived the people from reaping the benefits of the project, e.g. Karachi is without water from Karachi Bulk Water K-IV Project for the last over 20 years (650 million gallons per day).

Hurdles: Loading a procurement system with large number of formalities, accountability, responsibility, checks and balances, etc. would not bring much benefits but completing formalities remains the main attention for officials who would not dare to compromise a rule to save millions rather would insist for compliance that might cost billions extra discouraging human ingenuity.

Trust: Our economic system contains a huge portion (could be 70%) of grey economy working without much documentation and avoiding requisite legalities. They work on Trust when their primitive paper evidences are not acceptable at legal forums, yet the system is said to be reliable, fast and delivering without much delay and hectic. On the other hand, in a legally complied system courts are overloaded with law suits causing much lags in finalizing disputes.

Performance of E-Procurement

Digitalization has brought a big relief in cutting time by automating data-heavy tasks, rationalizing vendors' risks and analyzing the supply chain. However, it cannot replace human intelligence, negotiation, on-the-spot decisions, considering changes, legality, accountability and responsibility.

The technicality and sophistication of machines being engaged in e-procurement system depends upon the size of the project. From small to big projects, the refinement goes on expanding technical depth as per requirements. A small purchase project, like purchase of a car, requires the machine to feed information about the local market, price range, specifications, tender documents, lowest bid fulfilling the specifications, ordering, receipt and payment. On the other hand, medium and big size projects carry huge data and planning, with intricate functions right from the design stage. It does not involve only purchasing but starts with planning, bidding, digital vault opening, evaluation, contract management, and transparency.

Progress at Home

The country is actively engaged in implementing AI in the public procurement system under a phased programme from basic to fully automated

E-Procurement system with specialized machine-learning and data analytical systems integrated with public infrastructure.

- **E-Pak Acquisition and Disposal System (EPADS):** The system works under PPRA on "One Nation, One System" policy. A large number of public agencies, suppliers and international firms coordinate on this platform. It ensures verification and elimination of fake and tax evader companies through FBR, NADRA, SECP and PEC. This allows only capable and genuine contractors to participate in the project, which maintains the workflow and quality helping the project to complete in time avoiding cost overruns.
- **Procurement Planning:** All the departments upload their Annual Procurement Plans to EPADS, where the system automatically invites tenders through the public press. Bidders submit their tenders through an encrypted portal. No physical bids are accepted. The system is paperless and locked. The basic criteria are checked automatically, and disputed bids are sent to authorized officials through private dashboards using weighted matrices and determinants. Disqualified bidders receive automated notices with detailed reasoning of rejection. Successful contractor is provided with a digital wallet and linked directly to commitment accounting.
- **Transparency:** NAB, AGP, Competition Commission and other fiscal tracking institutions have direct access to monitor financial transactions. They can check communication trails without asking for physical files. Not only anti-corruption agencies, but citizens and any interested person, banks and other donor institutions may approach for the progress of these projects. Such a direct strategy gives a straight message to the contractors and officials that you are being watched every second. This automatically reduces evil intentions and deliberate delays while handling variations and alterations.
- **Managing Delays:** The E-Procurement is capable of refusing any variations or alterations and sending these to the authorized officials for necessary approval within a specified time period. After the expiry of timeline it sends reminders, inform the next senior or seeks his approval. It may terminate the process and ask for audit of delays.

On the other hand, AGPR and NAB are also online to observe all such delays and may intervene immediately for rectification or may initiate inquiry if finds necessary depending upon the nature of the case.

E-Procurement cannot be compromised nor influenced through any pressure. It can only be modified through authorized procedure. This eliminates the chances of any change by miscreants. The foremost quality of digitalization is that once it is set to a programme, it continues as such.

Challenges

E-programs may be intercepted through cyber-attacks, threats, human errors and misuse. And simply, all these technologies are not totally human-free. Those who feed them and are authorized to make alterations are always vulnerable to undermine the system. The bigger the size of the project, the larger the alterations and variations, as it is not humanly possible to cater for all the possible parameters which could be in millions and some may be changing with time, especially where project timelines spread over years, like dams, highways, railways, etc.

- Chances of cyber-attacks which may cause huge financial losses, bad name, legal problems, etc.
- There is always resistance to change, especially when the same set of officials are engaged in the change who have benefitted themselves with the conventional system.
- There is also dearth of digitally trained workforce.
- Automated coordination among all concerned institutions takes time.
- Complete engagement of all possible suppliers, manufacturers, consultants, contractors etc., is difficult and the missing one can create legal issues.
- Legal compliance. Machines work as fed. A small legal lapse may create big issues.
- At times the project needs changes and modifications as the project moves on and these changes have to be checked by authorized officials which generally take long time on false pretexts.
- Coordination amongst various departments is difficult and time consuming.

Conclusion

No doubt E Procurement saves time and cost with efficiency and causes transparency through automated workflows and reducing human errors. There are two main demanding issues confronted by our society. One, corruption and two, procrastination and delays. Both behavioral phenomena closely related and work together. Delay breeds corruption as time is money. Corruption has a set price but delay has a big recurring cost. Small corruption may form under duress but big corruption is a mutual cooperation.

Machines are only capable for the job these are equipped with and are dependent on humans for any improvement as these cannot deviate from the

programs already fed. Their fast speed to perform the functions is the main advantage together with their rigidity not to deviate under any situation.

A cursory look at Public Sector Development Programme would reveal that almost every project is suffering from colossal delays, especially the public utility projects. All the huge losses suffered by big projects are not going into corruption account, but the lust for small corruption caused delay to happen and resulted in much big losses. E-Procurement would control corruption and delays till the system keeps running on the parameters fed in. The moment their appears an iota of variation or needed alteration the E-System would halt asking for the remedy. If the learned system is equipped with all the clauses of agreement especially where changes are allowed under certain conditions like price escalations, change in quantity/specification or any other change, the system would work it out making adjustments with no stoppage. There could be variations where the agreement or rules and regulations are silent, Force Majeure and other unforeseen circumstances waiting for human decisions. It would ask for rectification from the authorized officers and would immediately involve the concerned officials and would continue pushing together with involving seniors till issues are resolved. The system would not sit quiet but continue knocking at all possible forums till the problem is cleared.

Digitalization cannot eliminate corruption or delays but can make the corruption harder through continuous follow-ups. This chase through machines and online involvement of other agencies would definitely put a big pressure minimizing delays and corruption where the system keeps all awake.

Can corruption be brought at zero? It can't, nor possible. Just as an example the rule demands a minimum of three quotations. The same contractor arranges three quotations with different names. Rule followed, corruption intact. Technology has no absolute independence but only to the extent humans allowed it. The same stands true for E-Procurement. Therefore, it is imperative to shun nepotism as it requires judicious and prudent humans to successfully keep the system operative meeting its goals.

For the success of the system and for reaping maximum benefits from E-Procurement, it is imperative to have clear vision together with a consistent long-term policy.

About the Author: Syed Shamim Ahmed is a senior Chartered Management Accountant having Fellow membership of ICMA. He retired as General Manager Finance from the Karachi Port Trust (KPT) where he served for around 22 years in different positions. He was also a member of the Karachi Dock Labour Board for 7 years. After doing his MBA from IBA Karachi, he started his initial career with Citibank and then served in Awami Autos (now Pak Suzuki).