E-PROCUREMENT IN ICAR -CONCEPTUAL FRAMEWORK

2.1 E-Procurement is a Web-based process that enables enterprises to manage their purchases across the entire requisition-to-payment cycle online. It creates specialized networks of suppliers on the Internet where one can place Request for Proposals (RFPs), exchange specifications, and receive and approve quotes. E-Procurement solution enables organizations-huge, small or medium enterprises-to automate their purchasing processes and reduce processing costs. With the web enabling one of the critical areas of business process, companies can now have access to new strategic partners, uncover new suppliers and streamline purchasing processes while simultaneously lowering the costs. Adopting an e-procurement solution could save money, time and labour that are wasted on sieving through reams of paper. The tremendous cost reduction, strengthening of customer relationship and opportunities to generate revenue have been contributing factors in the growing optimism among companies to adopt e-procurement strategies.

2.2 With an e-procurement solution in place, employees can search for a product on the Web, check on its availability, and create a purchase order. The next step is automatically assigning the requisition to accounting information and sending it for approval. Higher authorities in the managerial level will provide the approval. The order is sent across to the suppliers directly and fulfilled. Then an invoice is automatically processed and sent to the back-office financial applications. Here the information is analyzed and suitably reported. Transactions are then made on the basis of this report and the procedure is consummated.

2.3   An e-procurement system allows organizations to consolidate their purchasing power as purchases pass through a single order-placement mechanism. Without an e-procurement system, a company may place numerous orders for machine parts, office supplies and the like form multiple offices with no centralized control. The amount a company spends on a particular supplier or a product is difficult to track. When all the orders for a certain set of materials are placed through a centralized system, the amount spent becomes easy to track.

2.4   While implementing the e-procurement solution, companies can adopt the best practices because they set their own business rules for approval routing and control of access to supplier catalogs. Also, the system captures data that is vital for creating more-effective strategic supplier performance. Thus the organization is rendered more efficient and hence more productive. As the new e-business world is taking shape, e-procurement will enable creation of a strong supply chain network between different buyers and sellers. Such deep penetration, if and when it happens, will provide a competitive edge for individual businesses and, in turn, the industry by lowering supply chain costs. High potential savings are encouraging companies to implement e-procurement across their global operations.

2.5   E-Procurement is being embedded into larger offerings with other niche solutions like sourcing and payment solutions as attractive operations for companies. The major beneficiaries of this trend are the solution providers who facilitate e-procurement and creation of online trading communities. Many internet commerce procurement application offerings have emerged in the market addressing the automation and economics of the procurement process. Service companies have begun to implement e-procurement applications and consult around the entire

procurement process. Outsourcers are emerging as end-to end e-procurement service providers.

Benefits form E-Procurement

2.6   E-Procurement systems help companies consolidate data on procurement of various goods, directly. These data enable them to go in for bulk purchases, and negotiate with suppliers for greater discounts. Instead of ten different independent departments of the company buying a particular product in small numbers, a centralized and well-networked procurement system in the organization will help track the periodic demand for the product, and bulk purchase orders can be made accordingly. If the company can easily demonstrate to the supplier that there is a consistent demand, it can successfully leverage its purchasing orders. Moreover, by channelling all orders for certain parts and supplies through a specified route, the purchasing company can reduce the number of transactions needed for these items.

2.7   The value proposition of an e-procurement solution includes:

- **Lowering of procurement costs :** Reduction in costs, which could go up to around 20-25% , can be accomplished through efficient processes like   expansion of supplier base, better price negotiation and shorter procurement cycle, thus reducing inventories.

- **Easy tracking of transactions and automated payments:** Minimizing some of the post-purchase costs, thus ensuring customer satisfaction.

- **Better control:** Through an easy and effective reporting and analysis tools, one can improve efficiency in report maintenance, check maverick buying and create seamless data integration.

- **Automate repetitive tasks:** If some of the purchases made are regular, it automatically approves those purchases based on the buyer and the amount charged.

2.8 Procurement by an organization can be classified as MRO (Maintenance, Repair and Operating) and direct procurement. MRO procurement comprises all the indirect purchases that include office supplies, engineering parts, computers and accessories and can also include services like travel, courier, etc. Though this depicts only a small percentage of an enterprise's total expenses, for large enterprises it could mean spending crores of rupees. The total amount of MRO procurement varies from 10% of total procurement for manufacturing organizations to over 60% for service organizations like banks and other financial consultancies. The advantage of incorporating an e-procurement model for MROs is that the processes are faster and hence reduce dependency. For a direct model, in view of the large volumes of repetitive transactions, the benefit lies in the integration of e-procurement solution with the enterprise production planning and inventory management systems.

2.9 Most sell-side systems handle simpler transactions, such as MRO supplies. While sell-side systems allow sellers to interface with a multitude of customers, customer organizations may have to integrate their systems with multiple solutions, depending on the number of suppliers. Benefits of using these solutions, in comparison to the traditional ones for a customer organization, are in terms of enhanced customer value through efficient cost/time management and east information systems such as enterprise resource planning (ERP) makes it possible to automate a substantial fraction of transactions, thus greatly increasing the speed of handling transactions, as well as reducing processing costs.

2.10 Suppliers also stand to gain a lot from e-procurement. They can eliminate paper-based catalogs through Electronic Data

Interchange (EDI) and e-mails. Inventory management is made easier through automatic alerts and updated, simultaneously enabling buyers to notify suppliers automatically of payment based on the updated matches. Managing of accounts receivable also becomes more streamlined for them.

Obstacles in Adoption of E-Procurement

2.11   Though the trends are positive, there are certain stumbling blocks in the adoption of e-procurement. Many small and medium businesses are slow in procuring online, due to constraints in integrating procurement platforms with legacy systems and the lack of data standards. E-Procurement in the B2C sector has also been slow to catch on, as the supply chain links have not yet been fully e-business-enabled. One impediment is that not many suppliers are equipped to participate in an e-procurement process. They will have to invest in making custom interfaces and in some cases customers may be unwilling to participate.

2.12   E-Procurement impacts every function in the enterprise and may extend beyond just the procurement process. It may introduce new suppliers and new roles for existing suppliers such as banks and logistics companies. While in most cases, financial control procedures and commitment policies will have to be adjusted; failure to adjust to these will negatively impact investment payback.

2.13   Some of the issues that need to be sorted out by companies wanting to implement e-procurement solutions are:

- E-enabling of suppliers
- Finding new suppliers
- Need for strong collaboration
- Capacity to deliver
- Transactional cost

- To some extent, availability of content and transparency of the process

Main Characteristics of E-Procurement

2.14 In today's economy, companies are continuing the pursuit competitive advantage by searching for ways to boost the value proposition of the goods and services they offer. One of the main thrusts of these efforts is cost reduction to facilitate offering more for less- a proposition sure to attract any consumer's attention. This search has led to a greater interest and focus on what goes on in the purchasing department. With an average of 50 percent or more of all revenue in the typical company going right back out the of door to suppliers, cost containment and reduction requires more than just getting a few quotes and buying from the lowest bidder. The introduction of total cost management to acquisition and source selection, based on strategic alignment or goals, is morphing the purchasing function into a broader based role known as procurement. As purchasing managers become more comfortable in this new role and create new processes to support an expanded view, and emerging technology called e-procurement is getting a lot of attention.

- Negotiation – interaction between buyers and sellers
- Transaction – formalize the sale
- Fulfillment – delivery of items
- Settlement – instructions for payment
- Cataloging – specifications of items
- Discovery – lists of sources and vendors
- Scrutiny – review of offerings
- Adoption - deployment

Impact of E-Procurement on the Organizational Effectiveness

2.16 Benefits:

- **Reduced costs of goods and services:** E-Procurement solution made it easier for purchasers to by "on contract" increasing buying leverage with key suppliers.

- **Better information for procurement management:** Purchase data collected from an integrated, internal system could now be examined to identify and adjust sourcing policies and process flow as per need to help grow the company aggressively.

- **Better planning:** True integration of inter-company business process enabled collaborative planning with suppliers, thereby reducing working capital requirements and lower required inventory levels.

- **Higher productivity:** E-Procurement solutions also made it possible for business consumers to do their own buying directly from suppliers. Consequently, purchasing professionals now have more time to spend on higher-value activities-building better supplier relationship and contract management.

2.17 New Capabilities for Procurement Process

- True integration of customer and supplier processes
- Cooperative supply chain management and planning
- Real-time access to supplier knowledge
- Surplus material / recycling
- Global trading networks.

2.18 Company negotiating for its share of the supplier's savings

- Supplier benefits tremendously
- Increased sales volume
- Automated order management
- Faster time to pay
- Lower inventory
- Lower service costs.

2.19 impact of e-procurement on the overall supply chain:

- **Ordering:** Reduced order costs, richer ordering experience, real time substitutions, pricing based upon availability, quality and accurate configuration.

- **Inventory:** Fewer inventory shortages, shorter replenishment times, reduced shipment time, earlier notice of demand (demand planning/forecasting).

- **Returns:** Reduced paper processes, faster turnaround, improve customer service.

- **Billing:** Reduced billing/payment cycles, reduced errors, improved cash flow and more complex pricing capability.

- **Customer Service:** Better history of customer behavior.

2.20 Is it all that simple as it sounds? Definitely not. There are a number of challenges that a company faces when it opts for the e-procurement way of life. The next section discusses some of the main challenges a company needs to enjoy the benefits of e-procurement.

Challenges

2.21 Accelerating technological innovation has compounded the problem by creating a proliferation of surplus and idle assets with

the associated challenges of obsolescence, waste and under-utilization. Experts have conservatively estimated that about 10 percent of the assets on a company's balance sheet are either surplus or idle. These issues are not in the radar for senior executives, especially in asset-intensive industries like energy, utilities, construction, health care and discrete manufacturing. some of the challenges that were faced by the leading electronics company in question.

- First and foremost, the company had to define the new business processes unambiguously.
- Next, being a large organization there were several disparate systems that had to be knit together-a complex functional and technical proposition.
- Lastly, the buy-in of business users had to be sought to ensure that the solution met the business objectives.

Solution

2.22 The e-procurement solution is threefold: first to close all windows on procurement control and gain compliance through easy-to-use tools like Ariba Buyer; second, streamline and speed up the procurement process; and third, to reduce the number of vendors and leverage the spending of the corporation, renegotiate best pricing agreements. In other words, it is a balanced deployment of technology, re-engineering and sourcing. All three elements need to function in tandem to make the solution work.

2.23 This process is not easy, but it is also not as intricate and complex as rocket science. The challenge is in picking a robust and flexible tool, integrating it with legacy systems, enabling supply base for electronic content and transactional interactions and more importantly getting the buy-in of business users.Some of the main

issues faced by the company (per the example discussed in this paper) are highlighted below.

2.24 Key issues in deploying an effective e-procurement solution

- Ease of use and consistent user interface
- Functionally and flexibility
- Intranet-based deployment to all clients
- Approval and business modelling capabilities
- Document-based workflow capabilities
- Online, real-time access to key procurement information
- ERP integration
- Supplier integration
- Unique buying organization support
- Integration with legacy systems.

2.25 Considerable thought was also given to the mode of communication between the company and its suppliers. Some of them (methods of exchange) included:

- EDI – application to application
- Auto ID (bar codes) – item to application
- Email – person to person
- Extranets – person to person and application to application
- XML – computer to computer and computer to person.

Supplier Rationalization

How to achieve supplier rationalization?

2.26. The first approach involves identifying key suppliers based on their performance. Every business has unique characteristics, and well-designed performance metrics should reflect his; however, there are some basic items everyone needs to measure. These include product reject rates, on-time delivery performance,

completeness of orders and paperwork accuracy. Minimum standards for qualifying suppliers should be set, communicated and enforced.

2.27 The second approach in supplier rationalization is commodity contracting or aggregating your spending. The organization must ask if it really adds value to have more than one, or most two, suppliers for things like office or janitorial supplies the whole MRO (maintenance repair and operations) category could be contracted out to a single source, if it makes sense. Some companies have be conducted. Opportunities to put categories of items out to bid to qualified suppliers onetime, to select one or two suppliers for the entire package and to establish multi-year contracts with present themselves as the analysis is worked through.

Conclusion

2.28 The winners in this new economy will be those organisations that can effectively leverage the web to redesign, automate, and integrate all business operations- from demand capture, production planning, and purchasing to delivery, customer service, and new product development. These new e-Businesses will be built on a dynamic supply chain or series of supply chains –collectively known as a "supply net" – that can be assembled and adjusted as needed to provide rapid and optimal response to customer demand. Such hyper-responsiveness will only be possible in ICAR if all participants of an e-business supply net can communicate, analyze, and collaborate on requirements, plans, schedules, and other business initiatives as single, integrated, extended enterprises.