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TEJASWINA AVADHEETHA MASTHU
(May the Devine Light Illumine Our Studies)

Presentation by
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Welcome
To
All the Participants
for
“Three Day Residential Training Programme on e-Procurement” from 28-30 June 2017-APHRDI-Bapatla
Guest Lecture on
“Latest trends and Issues related to e-Procurement”
29-06-2017 (Thursday)
Introduction

- Traditional Purchase/Procurement Process
- Existing Manual Tendering Process
- Limitation of Manual System
- Proposed e-Tendering Process
- Overall Advantages
- Advantages to Vendors
- Obstacles to overcome
- Lessons learned
- Case studies for Academic institutions
**Procurement** is the process of sourcing products and services from point of supply to the point of demand

Why is procurement important?

- It received a lot of attention
- Open up countless opportunities
- Multidimensional relationships
- Procurement is a competitive differentiator

Advantages of procurement?

- Shorter cycle times
- Lower personnel costs
- Greater accuracy
Procurement Evolution

- **Past**: “Partnering”
- **Present**: Strategic Sourcing
- **Future**: e-Procurement
**e-procurement**

**Electronic Procurement:**

The act of placing an order using the Internet Technology.

*Source: “IDC -International Data Corporation”*

It’s a collaborative procurement of goods, works and services using electronic methods in every stage for bringing in efficiency & transparency.
Components of a typical e-Procurement System

- E-Auctions
- E-Tendering
- Contract Management
- Catalogue based Procurement
- Indent Management
e-Procurement Scenario

- Payment Systems
- Consultants
- Buyers
- Suppliers
- Logistics Systems
- Contractors
National e-Governance Plan

*A Bird’s Eye View of NEGP*

- e-Procurement is a National Priority
- Gram Pts
- Education
- Municipalities
- Central Excise
- Pensions
- Police
- Land Records
- Insurances
- Land Regn
- India Portal
- Common Service Centres
- EDI
- Gateway
- Comnl Policies
- eBiz
- Common Service Centres
- DCA21
- Income Tax
- Passport Visa
- Banking
- Treasury
- Comnl Supplies
- Civil Supplies
- Agriculture
- Employment
- Exchanges
- Civil Supplies
Reduction in Process cost

Source: RB Weber (data derived from sources including CAPS, NAPM and Stanford University)
In order to obtain an equivalent impact, a firm would have to...

- Increase revenue by 50%
- Reduce overheads by up to 20%
- Significantly reduce staff numbers

A 5% reduction in purchase cost can result in a 50% increase in profit margin.

Savings go direct to the bottom line
Build Competition

• Procurement is a competitive differentiator

- Increase sales by 50%
- Reduce overheads by up to 20%
- Significantly reduce staff members
Traditional Purchase/Procurement Process

- Manual processes
- Long chain of internal authorizations and scrutiny (at times involving several departments)
- Several visits by Vendors to Departments
- Generation of reams of paper-based statements and evaluations
Limitation of Manual System

- Delay in issue of tender schedules to Vendors
- Disadvantage for geographically spread bidders to participate
- Physical request / threats to bidders
- Risk of Tender Boxes at Multiple locations
- Delays in finalization of tenders
- Human interface at every stage leading to loss of objectivity
- Lack of Transparency
Proposed Tendering Process

Vendor Upload → Tender View → Response Submission → CS View → Purchase Order

Authentication → On line Clarification → Bid Submission → Re – Bid Submission → Technical CS → Price Bid CS → PO View

DSC Mapping → Vendor Activation
Overall Advantages

The main objectives of the e-Procurement initiative are to:

- Reduce the time and cost of doing business for both vendors and Organization
- Realize better value for money spent through increased competition
- Standardize the procurement processes across departments/agencies
- Allow equal opportunity to all vendors
- Bring transparency
Traditional vs Internet Procurement

Traditional Purchasing

1. Need
2. Inform purchasing Department
3. Request for quotation
4. Create Purchase Order
5. Receive in one week

Internet purchasing

1. Need
2. Search approved electronic catalog
3. Approve online order
4. Receive in 2 days
Advantages to Vendors

- Automatic e-mail alerts
- Re Bid submission
- Location independent
- Increased opportunities
- Transparency and eliminated buyer subjectivity
- Online confirmation of tender submission
- Consistency of process
- 24X7 Accessibility
Advantages to Vendors

- Elimination of dependency on officials for information
- Encrypted tenders at the time of submission
- Digital Signature – signing & verification
- Online Clarification
- Automatic viewing of all tenders online
- Past data for reference
- All tender related information available online
Readiness Required to Use
Personnel Skills

• Awareness of the Procurement Process
• Knowledge of simple Internet applications
• Basic computer skills (e.g. basic MS office)
• Has valid email address
• Training in e-procurement application
Other Requirements

- Should have a Computer
- Should have access to internet
- Should have valid Digital Certificate
- Enrolled with e procurement application
Obstacles we had to overcome:

- inertia – hesitation over the possibility of changing the rooted habits
- lack of awareness and capabilities

Lessons learned

Successful results were achieved due to:

- mandatory requirements
- the existence of centralized national information systems
- consultations and user guidance
- trainings
e-Services Overview

I. Account activation & Profile Management

II. Account Management

III. Invitation for Quotation

IV. Purchase order

V. Enroll to use e-procurement system, e-catalogue and e-submission

7/6/2017
Benefits of e-procurement system

1. Communicate with the Government more effectively and efficiently

2. Update company profiles and products and services information which will be accessible to everybody

3. Extend business opportunity with the Government

4. Reducing the turnaround time for receiving the invitation requests, submission of quotations, ordering and notification of acceptance

5. Enhance capability of e-commerce
# Benefits of e-procurement system

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<th>Benefits</th>
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<td>Improved Process efficiency and Compliance</td>
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<td>e-procurement is a “flexible solution” and is better connected to an ERP</td>
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7/6/2017
Benefits of e-procurement system

11. Supplier adoption, system Integration & Content Management are the challenges.

12. Must go hand-in-hand with a Strategic Sourcing Strategy

13. e-procurement is a “flexible solution” and is better connected to an ERP

14. Does not need to be part of a strategic enterprise-wide architecture

15. e-procurement is mostly about changing buyer behavior
Benefits of e-procurement system

- Reduced product/process cost
- Reduced Maverick purchasing
- Reduced Inventory costs
- Enhance value of customer
- Multiple Interactions
e-procurement savings: *the principal benefits*

1: Increase in Process Efficiency

E-Procurement reduces the administrative cost for each transaction shifted from paper to the electronic channel:

- reduced error rates
- reduced processing time
- reduced fax / phone usage
- reduced on-site inventory

Los Angeles City have reduced the cost of procurement from an average of $130 per order to $40 per order. Their target is to achieve a cost of $25 per order. (Costs are inclusive of all business & IT personnel and systems involved in the procurement process)
**e-procurement: the principal benefits**

2: Increase in Contract Compliance

Electronic procurement enables organisations to ensure procurement compliance:

- increased use of preferred suppliers
- reduced off-contract spending
- reduced processing errors

so that:

- more goods are purchased at lower prices

Typically this is the largest element of the e-Procurement value proposition

Plans to generate savings of $50m per annum through increasing compliance from 40% to 75%.
e-procurement: *the principal benefits*

3: Increased Leverage of Purchasing Power

Electronic procurement provides greater oversight of purchasing spend:

- consolidated details of actual spend with each supplier
- consolidated detail of actual spend in each product category

so that:

- full purchasing power is leveraged to negotiate increased discounts
- appropriate product categories can be targeted for preferred supplier contracts

Currently not certain where indirect spend goes and cannot fully exploit its buying power - estimates another $29m per annum through leverage.
Procurement Issues

• Analysis indicates that Procurement is one of the operational areas that can yield significant efficiency and savings opportunities.

• Opportunities can be a result of lack of control in the following areas:
  
  - Identification of spend by commodity type and visibility to supplier relationships;
  - Lack of control & compliance to procurement policies & procedures
Procurement Issues

Procurement has traditionally been under-utilized as a lever for improved performance for a number of reasons:

- Procurement viewed as a collection of administrative and logistical tasks focused on transaction processing
- Performance measures not linked to business objectives and focused primarily on unit price
- Significant portions of the spend base do not pass through procurement
How e-procurement delivers the savings

1: Reduction in Process Costs

**E-Procurement:**
- eliminates re-entry of orders
- accuracy of stock item and price eliminates need for supplier to re-work orders
- eliminates order-chasing by providing online status information
- reduces cycle-times so can deliver reduced inventory stock levels across supply chain

By removing the administrative overhead from indirect purchasing, your procurement staff can focus on:
- strategic procurement: improving existing contracts and building new supplier relationships
- supporting priority or time-critical purchases
Off-contract purchasing is typically because of the implicit delay or difficulty in locating preferred supplier product range.

**E-Procurement:**
- Reduces time taken for employee to source product by provision of single composite catalogue of preferred suppliers
- Simplifies requisitioning process by point-and-click ordering
- Reduce time to place order by providing immediate placement of requisitions within approval limits
- Reduce fulfilment time by avoiding need for supplier rework of orders.

### 2: Increase in Contract Compliance

Traditional purchasing:
- Need
- Call purchasing manager
- Phone in order
- Get approval
- Find item in catalog
- Receive in one week

Internet purchasing:
- Need
- Search approved Internet catalog
- Order
- Receive in 2 days
How to Start: implementation Decisions

**Spend Segmentation**
- End to end process
- Req to order

**Level of Automation**

**Deployment**
- Desktop
- Limited access
- Purchasing dept only

**Content (catalogue)**
- Cat managed externally
- Cat managed internally
- Supplier managed

**Distribution of Functionality**
- ERP based
- Free standing integrated best of breed
- Distributed functionality

**Organisational**
- Global
- Regional
- Divisional

... Getting the benefits at lowest risk
Factors influencing implementation strategy

Navigating the landscape at lowest risk

- Reaching critical mass in contract coverage
- BU / Site constraints
- Country
- Technical Integration
- Supplier Adoption
- Change Management Approach
- Cultural adoption
- User adoption Approach

Strategy
e-Business Integration

The integration points of the e-business solution should maintain the integrity and workflow of the transactional system.

1. **HR Organization**
   
   Synchronize HR data and structure for sign-on existence and approval hierarchy

2. **Accounting Information**
   
   Synchronize company codes, cost centers, accounts, etc.

3. **Pass Requisition to transactional system**
   
   Export requisition (approved or unapproved) back to transactional system for PO creation

4. **Create PO and output to e-Business Transaction Manager**
   
   Generate output at PO creation (EDI-style) and pass to EDI, Fax, or e-Business Transaction Manager for web-based processing

5. **Pass status changes back to e-Business requisition**
   
   Backflush changes to update req. status

6. **Synchronize item masters if appropriate**
   
   Keep catalog records in sync with internal purchase item masters
E-Business and E-Commerce ... What do they mean?

**E-Commerce** is the electronic buying, marketing, and selling of products and services.

**E-Business** is using electronic information to improve performance, create value and enable new relationships between businesses, their suppliers and customers.
E-Business impacts three broad areas of Municipality activity

E-business is the use of the internet application across the B2C, B2B and B2E to increase the effectiveness of the Municipality.
e-MARKETS: DESIGN ISSUES

ALGORITHMS

• Buyer Aggregation
• Supplier Aggregation
• Demand Aggregation
• Buyer-Seller Matching
• Dynamic Pricing
• Multi-Attribute Auctions
• Combinatorial Auctions
e-MARKETS: DESIGN ISSUES

- TECHNOLOGY
  - Authentication and security
  - Electronic payment
  - Software architecture
  - Distributed objects
  - Agents and mobility
  - Scalability
  - Interoperability
e-MARKETS: DESIGN ISSUES

• INTEGRATION
  – with existing best practices
  – with existing business processes
  – with existing catalogs
  – with ERP software
  – with the backend
  – with other E-markets
EMERGENCE OF E-PROCUREMENT

- Electronic catalogs
- Internet search engines
- Web-EDI (Electronic Data Interchange)
- On-line auctions and bidding
- Advances in E-commerce
e-PROCUREMENT: VALUE ADDITIONS

• Demand aggregation
• Bundling and supplier aggregation
• Optimal vendor selection
• Innovative dynamic auctions
• Multi-attribute decision support
What is E-procurement

➢ Automate the ENTIRE supply chain from product selection through receipt.

➢ E-Procurement offers real-time interactivity with trading partners locally and worldwide.
Connectivity Models

Suppliers

Many to Many

EDI

Buyer

Many to One &
One to Many

Website

Website

One to One to Many

Shared Solution
Connectivity Approach

A Single, Secured Connection!

- Japan Marketplace
- UAE Marketplace
- US Marketplace
- Construction Marketplace
- Government Marketplace
- Healthcare Marketplace
- SE Asia Marketplace
- UK Marketplace
Procurement challenges and expectations

Procurement organizations are expected to lower the material cost coupled with high process efficiencies. The diagram illustrates the key areas of focus:

- **Material costs**
  - Negotiation
  - Prediction
- **Process efficiency**
  - Activity costs
  - Time
  - Eliminate non-value adding activities

Key strategies include:
- Centralized procurement
- Vendor Leverage
- Item standardization
- Vendor base rationalization

Efficiencies in activity costs and time are crucial for achieving overall process efficiency.
Procurement process

The opportunities lie across the procurement process

Vendor Base Rationalization | Item Standardization | Vendor Leverage

Conduct Market Analysis | Develop Category Strategy | Complete Supplier Evaluation | Select Suppliers & Negotiate Agreement | Supply | Pay

High value buying

Centralized procurement

Conduct Spend Analysis & Determine Customer Requirements

Low value buying

Transaction Costs

Value | No. of Transactions

Prediction Models
Procurement process

Multiple options are available at various points

- **Vendor Base Rationalization**
- **Item Standardization**
- **Vendor Leverage**

**Conduct Market Analysis**
- Conduct Spend Analysis & Determine Customer Requirements

**Develop Category Strategy**

**Complete Supplier Evaluation**

**Select Suppliers & Negotiate Agreement**

**Supply**

**Pay**

High value buying

- e-Requisition
- e-Approval
- RFI, RFQ, RFP
- Tenders

- Reverse Auction
- e-PO
- e-Release
- e-Changes
- e-Confirm

- e-documents:
  - ASN
  - Ship status
  - Receipt
  - Supplier web report card

- e-Invoice
  - EFT
  - Credit auth.
  - Debit auth.
  - e-Credit/Debit

Value  No. of Transactions
Procurement process

Multiple options are available at various points

- Conduct Spend Analysis & Determine Customer Requirements
- Prediction Models
- Centralized procurement

- Low value buying
  - Transaction Costs
- Value vs No. of Transactions

- e-Catalog
- Pricing
- Availability
- Commit
- e-Configure
Automates entire buying and selling process

Provides access to new services, portals & communities
e-procurement enables distributed but controlled purchasing. It automates the process from requisition to payment - to streamline operations, shorten cycle times and reduce costs.

End User
- Select approved goods
- Check prices
- Check availability
- Submit requisitions

Catalogues
- Negotiated relationships
- Buyer specific content

Suppliers
- Manage content
- Maintain accuracy

Purchasing Dept.
- Approve requisitions
- Place orders
- Manage consolidation
- Analyse purchasing data
e-Procurement for Public Sector

e-Procurement, a significant opportunity within E-Governance

- Government – an attractive case for e-Procurement
  Probably the “single largest buyer” of goods and services in a state

- Serious initiatives underway from AustralAsia to Europe to USA

  Important Value Drivers
  - Potential savings – aggregated demand
  - Cost reduction – process efficiency
  - Compliance

Attractive business models – Public Private Partnership (PPP)

As many as 42 states in the USA, in addition to the Federal Government, will embark on some form of e-Procurement project by 2004 (Gartner)
Thank You