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SCLEN General Procurement – BRD V0.3

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# Summary

This document outlines the complete business requirements for developing a General Procurement Tool that supports end-to-end digital procurement workflows. It enables registered buyers and suppliers to manage procurement events such as direct purchase orders, RFx-based competitive sourcing (RFI, RFP, RFQ), and auction-based procurement. The tool includes product catalogue governance, AI-assisted workflows, BOM management, and multi-supplier PO’s.

# Objectives

* Digitize and centralize procurement workflows
* Enable multiple procurement strategies (Direct PO, RFx, Auction)
* Automate vendor discovery and supplier registration
* Maintain a centralized **Product Catalogue** accessible to buyers and suppliers
* Support structured **BOM** creation (manual and AI-assisted)
* Provide AI chat-agent for auto-drafting of RFx and Auction events
* Enable real time PO creation, multi-vendor PO splitting, and fulfillment tracking
* Offer role-based access and reporting dashboards

# Process Flow

A screenshot of a computer screen

AI-generated content may be incorrect.

# Business Requirements

* 1. **Buyer Management**

To onboard buyers into the platform, assign appropriate roles, and manage procurement rights and workflows.

**Features:**

* Registration form for new buyer organizations and users
* Role-based access:
  + Buyer Admin: Full control
  + Buyer User: Can initiate procurement
  + Sourcing Manager: Can evaluate and finalize suppliers
* Multi-user support per organization
* Company profile setup with GST, PAN, billing info
* Approval matrix definition for high-value procurements
* User invitation, suspension, and deletion workflow
  1. **Vendor Management**

To onboard and maintain a verified and performance trackable vendor ecosystem.

**Features:**

* Two modes of registration:
  + Buyer initiated vendor invitation
  + Supplier initiated self-registration via public portal
* Vendor profile includes:
  + Company details, Contact, Bank, PAN, GST
  + Compliance docs, Certifications, Product Categories
* Buyer Admin approval workflow
* Vendor status: Pending, Approved, Rejected, Suspended
* Vendor tagging (e.g., MSME, ISO-certified)
* Vendor performance scorecard (based on historical response, delivery)
  1. **Material & BOM Management**

To create and manage reusable Bills of Materials for grouped procurement.

**Features:**

* Create/edit material master entries
* Create BOMs from catalog items
* BOM builder (Both using UI and upload) with versioning and editable line items
* Editable line items: UOM, Quantity
* BOM to vendor mapping
* BOM validity period and tagging
* AI Agent for BOM creation:
  + Chat-based input
  + Auto-suggests components from catalogue
  + Buyer reviews/edits and finalizes
  1. **Product Catalogue Management**

To maintain a centralized catalogue of all items/services that can be procured, with buyer-controlled governance.

* Suppliers submit catalogue items → Buyer Admins review and approve
* Catalogue is the source of truth for all items used in BOM, RFx, PO

**Features:**

* Catalogue fields: Item Name, Description, UOM, Category, Base Rate, Tags
* Open-access by default to all buyers and suppliers
* Access narrowed later by role, region, product category
* Supplier suggested items require Buyer Admin approval
* Catalogue versioning, tagging, and audit trail of changes
* Integration with: BOM builder, RFx forms, Direct PO
  1. **AI based Vendor Discovery**

Enable buyers to discover relevant vendors intelligently using AI/ML techniques by analyzing public data, portals, certifications, and vendor directories.

**Features:**

* AI-powered engine to identify potential vendors from web sources, directories, and marketplaces
* Natural language search interface for buyers to input requirements (e.g., “Find stainless steel pipe suppliers in Gujarat with ISO certification”, “Need vendors for electronic components with delivery within 7 days”, or “Looking for small scale suppliers for bulk cotton yarn”)
* Intelligent categorization based on certification, region, sector, product lines
* Automated vendor profiling and data enrichment (ratings, compliance, past projects)
* AI recommendations ranked based on relevance and past procurement outcomes
* One-click Call to Action to initiate onboarding/invitation process
* Buyer can shortlist, ignore, or initiate engagement with suggested vendors to identify potential vendors from web sources, directories, and marketplaces
  1. **Procurement Methods**
     1. Direct Procurement

Used when materials or services are well-defined, repetitive, or sourced from pre-approved vendors. This method minimizes time and skips competitive bidding.

* Selection of material(s)/BOM - The buyer selects items directly from the material master or uploads a known BOM. No requirement scoping or technical clarifications are needed.
* Vendor shortlisting - From previously approved or linked vendors (based on material-category mappings), the buyer selects one or more suppliers who are eligible for direct issuance of PO.
* Quote request, comparison, selection - (Optional) If multiple vendors exist, the buyer may raise a quick RFQ for immediate pricing. If only one vendor is mapped, this step may be skipped. System compares delivery time, unit cost, and taxes.
* PO generation - Once the vendor is finalized, a PO is generated and issued directly. Vendor acknowledges via portal, and the fulfilment process begins. No RFI/RFP is involved.
  + 1. RFx Procurement (RFI → RFP → RFQ Workflow)

Used when requirements are exploratory, technical proposals are needed, or evaluation is based on qualitative and commercial factors.

* RFI for capability assessment - Request for Information is floated to gather vendor profiles, credentials, capacities, or technology solutions. Used when buyers don’t know which vendors are suitable.
* RFP for proposal submission - Selected vendors from RFI are invited to submit detailed proposals, including solution approach, commercial models, and implementation timelines.
* RFQ for pricing - Once the proposal is reviewed and scope is finalized, an RFQ is floated to request competitive prices from shortlisted vendors. This RFQ is tightly scoped, based on the outcome of the RFP.
* PO generation and tracking - Based on evaluated proposals and pricing, the winning vendor is selected, and PO is issued. The system continues tracking acknowledgment, shipment, and billing stages.
* AI chat agent:
  + Buyer uses chat prompt to describe need with the mandatory fields
  + AI drafts RFx form with all the mandatory fields
  + Buyer reviews, edits, and publishes RFx
    1. Auction based Procurement

Used to maximize cost competitiveness in well-defined commodity procurement where multiple suppliers exist.

* Reverse auction setup - A reverse auction event is scheduled, where pre-qualified vendors are invited to bid against each other on price. The auction rules (start time, duration, bid decrement, target price) are configured in advance.
* Time based, event driven bidding - Bidding happens in a predefined window. Vendors can view their current ranking but not competitor prices (unless configured otherwise). Auto-extension is applied if bids are placed near auction close.
* Real time monitoring and bid history - Buyers can monitor real-time bids, vendor participation, and can download complete bid logs after the event. Final L1 vendor is selected and a PO is initiated post confirmation
* AI chat agent:
  + Buyer uses chat prompt to describe need with the mandatory fields
  + AI drafts RFx form with all the mandatory fields
  + Buyer reviews, edits, and publishes the auction
  1. **Purchase Order and Fulfillment**

Allow buyers to generate and track Purchase Orders and ensure end-to-end delivery and invoicing completion.

* PO generation and issuance
* Vendor confirmation and delivery schedule
* ASN, GRN, invoice upload
* Delivery and invoice status tracking
* Once the Purchase Order (PO) is issued, suppliers must log in to the system to acknowledge receipt of the PO.
* The system shall record the date/time of acknowledgment and maintain this as part of the audit trail.
* Supplier acknowledgment is a mandatory step before shipment or ASN submission.
* For multi-line RFQs or BOM based procurement events, the system shall allow issuing multiple Purchase Orders to different vendors based on line item allocations.
* Each PO shall be generated and tracked independently while linked to the originating procurement event for consolidated reporting.
  1. **Budget and Approval Control**
* Budget envelope assignment to procurement events
* Pre-check validation before RFQ/RFP issuance
* Approval matrix and notifications
  1. **Communication and Documentation**
* Internal chat/messaging per event
* Notification engine (email, in-app)
* Document upload and tagging
  1. **Reports and Dashboards**
* PO Summary
* Spend Analysis
* Vendor Scorecard
* Auction savings tracker, quote history, vendor ranking

# User Roles and Access

* Buyer Admin: All access, approvals, team setup
* Buyer User: Create BOM, RFx creation, Auction management, Raise PO’s
* Procurement/Sourcing Manager: Review RFQs, evaluate responses, approve vendor onboarding
* Vendor: Create catalog, RFx & auction participation, confirm PO

# Procurement Scenarios

* Direct PO from Rate Contract

Buyer selects item → mapped vendor suggested → PO created → acknowledged and fulfilled

* RFI → RFP → RFQ Multi-Stage Sourcing  
  Collect capability → Invite proposals → Request pricing → Final vendor selected
* Auction for Standard Items

Buyer launches reverse auction → real-time bidding → PO generated for L1 vendor

* BOM-Based Procurement  
  Buyer creates BOM → Initiates RFx → Selects vendor → Fulfillment tracked by line item
* Vendor Discovery via AI  
  Buyer uses chat to describe need → Suggested vendors shown → One or more invited
* Supplier-Initiated Onboarding  
  Supplier fills public form → Buyer Admin reviews and approves
* AI Chat-Based Event Creation  
  Buyer uses chat to describe event → RFx or Auction auto-created
* PO with Multiple Suppliers  
  Different BOM items awarded to different vendors → Multiple POs generated
* Approval driven budget enforcement  
  If spend exceeds limit → auto-escalated for approval → audit trail maintained
* Repeat PO from historical event  
  Buyer can clone past PO or BOM event → initiate sourcing or direct PO again

# Screens and Fields

|  |  |  |
| --- | --- | --- |
| **Sl\_No** | **Screen Name** | **Field Name** |
| 1 | Login | Email |
| Password |
| OTP |
| Forgot Password |
| Remember Me |
| 2 | Dashboard | Procurement events list |
| Alerts |
| Status |
| Create New |
| View Details |
| Filters (Date, Type, Status) |
| 3 | Vendor Discovery | Search Input |
| Filters (Location, Category, Certifications) |
| Vendor Cards (Name, Rating, Invite, View Profile, Onboard) |
| 4 | Vendor Registration | Vendor Name |
| Contact Person |
| Email |
| Phone |
| PAN |
| GST |
| TAN |
| Bank Details |
| Compliance Docs Upload |
| Categories |
| Product/Service Descriptions |
| Certifications |
| Years of Experience |
| Office Locations |
| 5 | Material Master | Item Name |
| Internal Code |
| External Code |
| Category |
| Sub-category |
| UOM |
| Unit Price |
| Price History |
| Min/Max Order Qty |
| Lead Time |
| Vendor Mapping |
| Specifications |
| 6 | BOM | BOM Name |
| Version |
| Description |
| Material List (Code, Description, Qty, UOM, Unit Price, Total) |
| BOM Category |
| Editable Line Items |
| Valid From/To Dates |
| 7 | RFI / RFP / RFQ | Title |
| Reference No. |
| Scope |
| Criteria |
| Due Date |
| Status |
| Attachments |
| Related BOM |
| Evaluation Parameters |
| Submission Deadline |
| Contact Person |
| Evaluation Weightage |
| 8 | Auction | Auction Name |
| Items |
| Quantity |
| Start Time |
| End Time |
| Reserve Price |
| Bid Rules (Increment, Minimum Price) |
| Participant List |
| Current Bid |
| Bid History |
| 9 | Quote Comparison | Vendor Name |
| Quoted Price |
| Delivery Terms |
| Payment Terms |
| Taxes |
| Lead Time |
| Total Cost |
| Download/Export Option |
| 10 | PO Creation | PO Number |
| Date |
| Vendor |
| Line Items (Material, Qty, Rate, Taxes, Discounts) |
| Terms & Conditions |
| Delivery Schedule |
| Attachments |
| 11 | Fulfilment Tracking | PO Reference |
| Vendor |
| ASN Number |
| GRN Number |
| Invoice Number |
| Invoice Upload |
| Delivery Status |
| Payment Status |
| Remarks |
| 12 | Reports | Filter by Date |
| Vendor |
| Buyer |
| Category |
| Spend Analysis Chart |
| PO Volume |
| Vendor Ranking |
| Compliance Reports |
| Auction Performance |
| 13 | Notifications / Logs | Notification Type |
| Message Content |
| Timestamp |
| User ID |
| Action Performed |
| Module |
| Status (Read/Unread) |
| Export Option |