Business Requirement Document

Price Procurement Agent

Date of Requirement: 20/06/2025 Change Type: New

Version	Date	Prepared By	Comments
1.0	20/06/2025	Sunil Dhakad	Initial
1.1	23/06/2025	Atul Nagargoje	Reviewed

1. Introduction

1.1 Purpose

This BRD outlines the functional and business requirements for a GenAI-based Procurement Agent designed to optimize procurement price benchmarking. The goal is to analyze internal and external data sources to compare prices across suppliers, geographies, and time, and provide actionable insights and suggestions to drive savings and strategic procurement.

1.2 Scope

This project involves the development, deployment, and integration of a GenAI-powered procurement system. Key components include:

- Historical procurement data analysis

- External market data ingestion

- Price comparison and benchmarking engine

- Integration with ERP/procurement systems

- Automation of procurement workflows

The system focuses initially on raw materials and components but is designed to scale to broader categories.

1.3 Goals

- Deliver optimal procurement price recommendations.

1.4 Objectives

- Map and standardize SKUs to eliminate ambiguity and hallucination.
- Develop and fine-tune a GenAI model using historical pricing, market indicators, vendor data, and contract terms.
- Integrate with ERP/procurement platforms for seamless operations.
- Provide real-time, contextual price comparisons and trend-based recommendations.
- Detect market volatility early and trigger proactive decision support.
- Improve speed, accuracy, and strategic quality of procurement decisions.

2. Business Context

2.1 Background

The procurement function currently lacks the tools and intelligence to:

- Monitor internal pricing fluctuations.

- Compare supplier prices across geographies and business units.

- React rapidly to changing market dynamics.

- Escape from manual, time-consuming procurement cycles.

2.2 Problem Statement

Inefficient procurement benchmarking causes:

- Higher costs due to non-optimal sourcing.

- Delays in negotiation and PO generation.

- Missed opportunities for volume discounts and timing-based pricing.

2.3 Proposed Solution

Deploy a GenAI-powered procurement benchmarking agent that:

- Uses ML models to analyze trends and recommend optimal pricing.

- Automates data ingestion from internal (ERP) and external (APIs, feeds) sources.

- Provides intelligent procurement guidance in real-time.

2.4 Business Benefits

- Reduction in procurement spending.
- Stronger supplier negotiations.
- Reduced exposure to price volatility.
- More consistent and strategic procurement performance.
- Higher operational efficiency and margin gains.

3. Functional Requirements

3.1 End-to-End Procurement Workflow Automation

- Automate: Requisition > Approval > Vendor Selection > PO > Goods Receipt > Invoice > Payment
- Sync with ERP and finance systems for audit and transparency.

3.2 Smart Purchase Requisition (PR) Management

- AI-assisted PR creation with historical context.
- Auto-suggestions for SKUs, suppliers, quantities.
- Dynamic approval routing by value, urgency, or cost center.
- Validation against budgets, stock, and contracts.

3.3 Real-Time Price Comparison Engine

- Compare across internal catalogs, vendor portals, and global platforms.

- Compare prices (internal & external), Databases for Import / Export. Price Trending. Show price history and predictive analytics.
- Auto-select suppliers based on pricing and performance.

3.4 External Market & Vendor Intelligence

- Integrate with APIs for commodity indices, inflation data, and geopolitical signals.
- Auto-tag supplier risk using external ratings.
- Alert procurement for significant market shifts.

3.5 Inventory-Aware Procurement Decisions

- Cross-check requisitions with available stock.
- Recommend internal stock transfers.
- Flag surplus or obsolete inventory before reordering.
- Review inventory (excess/shortage) and create nudges

3.6 AVD – Automated Vendor Decisioning Engine

- AVD development based on criticality and class of vendor.
- Score vendors on price, quality, SLA adherence, and compliance.
- Recommend optimal vendors dynamically.
- Support vendor contract governance.

3.7 New Vendor Discovery & Qualification

- AI-based discovery from global B2B directories, marketplaces, and web sources.
- Auto-check for certifications, capacity, location fit.
- Streamlined onboarding and risk vetting workflow.

4. Non-Functional Requirements

- **Performance:** Near real-time response for benchmarking queries.
- **Scalability:** Handle multi-category, multi-country procurement.
- **Security:** Role-based access, data encryption, and audit trails.
- **Interoperability:** Compatible with SAP, Oracle, Coupa, or other ERP systems.
- **Usability:** Intuitive UI for procurement users and approvers.

5. Assumptions & Constraints

- Clean historical procurement data is available.
- Integration support from ERP/IT teams.
- Third-party data sources are accessible and licensed.
- User training will be delivered in parallel to rollout.

6. Acceptance Criteria

- Functional prototype demonstrating PR generation, price benchmarking, and vendor scoring.
- Successful integration with at least one ERP.
- Documented performance improvements (e.g., cost savings, cycle time reduction).
- User acceptance testing passed by procurement stakeholders.