# Vendor Collaboration Tool Design & Workflow

## 1. Purpose

The Vendor Collaboration Tool is designed to enhance communication and data sharing between the company and its vendors. It allows real-time tracking of vendor lead times, order statuses, and performance metrics to ensure supply chain efficiency and minimize production delays.

## 2. Key Features and Functionalities

### A. Vendor Dashboard

- Overview of Vendor Performance: Delivery status, on-time rate, and quality ratings.  
- Live Order Tracking: Real-time updates on shipment statuses.  
- Lead Time Monitoring: Historical and current lead time trends.

### B. Automated Notifications and Alerts

- Delayed Shipments Alerts: Notify procurement teams of late deliveries.  
- Low Stock Warnings: Triggered when stock falls below reorder levels.  
- Change Request Notifications: Vendor acknowledgments and approvals for change requests.

### C. Vendor Scorecard

- KPIs: On-time delivery rate, defect rate, order accuracy, and responsiveness.  
- Rating System: Visual scoring (e.g., Red-Yellow-Green indicators).  
- Monthly/Quarterly Reviews: Automated generation of performance reports.

### D. Communication Portal

- Document Sharing: Share purchase orders, invoices, and compliance documents.  
- Feedback Loop: Vendors can submit updates, feedback, and issue reports.

### E. Predictive Analytics

- Forecast Vendor Delays: Based on historical performance data.  
- Supply Chain Risk Alerts: Predict risks due to supplier issues.

## 3. Workflow

1. Order Placement → Purchase orders are automatically sent to vendors.  
2. Order Confirmation → Vendors confirm receipt and provide estimated delivery.  
3. Lead Time Tracking → System monitors vendor progress and compares to the promised timeline.  
4. Performance Evaluation → Vendor metrics are recorded and visualized in the dashboard.  
5. Alerts & Notifications → Automatic alerts for delays, shortages, or compliance issues.  
6. Feedback and Review → Vendor performance is reviewed periodically with actionable feedback.

## 4. Tools and Technologies

- ERP Integration: SAP, Oracle for order and inventory management.  
- Data Visualization: Power BI or Tableau for vendor dashboards.  
- Automation: Microsoft Power Automate, Zapier for alert notifications.  
- Communication: Slack/Teams integration for real-time vendor communication.