Business Requirements Document (BRD)

Project Title: ShopWorld Inventory Tracking & Management System

Prepared by Sannidhi Hulagur
Business Analyst

Executive Summary

ShopWorld, a growing retail business, is experiencing inventory imbalances due to an inefficient manual tracking and ordering. This leads to frequent stockouts of fast selling products and overstock of slow-moving items. This imbalance negatively impacts profitability, customer satisfaction, and operational efficiency. This project proposes the implementation of an automated inventory tracking and management system to enhance operational efficiency, accuracy, and data transparency across the store, warehouse, sales, and procurement teams.

Project Objectives (SMART Goals)

• Specific – Deploy an automated inventory system that tracks and updates stock levels in real time across departments within 60 days.
• Measurable – Decrease stock discrepancies by at least 80% within 3 months of deployment.
• Achievable – Utilize barcode scanners, real-time dashboards, and automated reorder alerts to streamline operations.
• Relevant – Enable sales, warehouse, and procurement teams to make informed decisions using up-to-date inventory data.
• Time-bound – Complete full rollout and staff onboarding/training within 8 weeks.

Project Scope
In-Scope

- Real-time inventory tracking across store and warehouse
- Barcode scanning for product updates
- Automatic alerts for low stock levels
- Auto-generation of reorder requests
- Dashboards showing fast- and slow-moving items
- Centralized inventory database accessible by procurement, store, and sales teams
- Support for vendor order tracking

Out-of-Scope

- Redesigning the Entire Website or E-Commerce Platform: No changes will be made to customer-facing UI or online shopping features.
- Training All Staff Nationwide: Only selected staff participating in the pilot phase will be trained.
- Replacing or Upgrading POS Machines in All Stores: Existing hardware will be used; POS hardware upgrades are not included.
- Switching Suppliers or Overhauling the Supply Chain: The system will improve coordination with current suppliers, not replace them.
- Introducing a Full Loyalty or Rewards Program: Customer loyalty systems are not part of this implementation.

Functional Requirements (What the System Shall Do)

Each of the following requirements is traceable to a specific business need.

Functional Requirement	Business Need Addressed
1. The system shall track inventory levels in real- time across all departments.	To avoid inaccurate stock records and allow cross-departmental visibility.
2. The system shall send automatic alerts when stock levels fall below a defined threshold.	To prevent stockouts and support timely procurement.
3. The system shall display dashboards showing fast-selling and slow-selling items.	To aid decision-making around stock ordering, promotions, and product performance.
4. The system shall enable staff to scan products using barcodes to update records instantly.	To eliminate manual updates and errors while speeding up inventory processes.
5. The system shall provide sales, store, and procurement teams with access to a unified, up-to-date inventory database.	To improve collaboration and ensure everyone works with the same data.
6. The system shall automatically generate reorder requests when stock levels reach the reorder point.	To streamline restocking without manual paperwork or delays.
7. The system shall integrate with SMS gateway services (e.g., Vellamet or Digitext) to notify procurement via SMS.	To ensure timely, local communication in environments with limited email reliability.
8. The system shall support barcode scanner devices and barcode scanning mobile apps.	To increase flexibility in device use across departments.

Non-Functional Requirements (How the System Should Behave)

Non-Functional Requirement	Business Value/Justification
1. The system shall have a simple and easy-to-use interface.	Reduces training time and promotes adoption among non-technical staff.
2. The system shall provide secure login for different users with role-based access.	Protects sensitive data and prevents unauthorized access to stock functions.
3. The system shall be affordable to maintain with minimal recurring costs.	Makes it sustainable for the business over time.
4. The system shall offer fast and reliable system response even under load.	Enhances efficiency and minimizes operational delays.
5. The system shall support cloud-based or local network deployment options.	Provides deployment flexibility based on ShopWorld's infrastructure.
6. The system shall be compatible with commonly available barcode scanners and Android smartphones.	Saves cost on buying new hardware.
7. The system shall ensure timely delivery of SMS alerts via local SMS gateway integration.	Critical for fast procurement response in the Nigerian context.

Fig 1.1 SHOPWORLD INVENTORY AS-IS PROCESS

The As-Is Process Map visually represent the current workflow of inventory management and customer order placement at the shop. This process map highlights the existing steps, the flow of activities, and key decision points within the system. By mapping out the process, we can clearly see where improvements can be made to optimize the workflow and reduce inefficiencies.

SHOP WORLD INVENTORY AND ORDER PROCESS(AS-IS)

(CURRENT PROCESS BEFORE IMPROVEMENT)

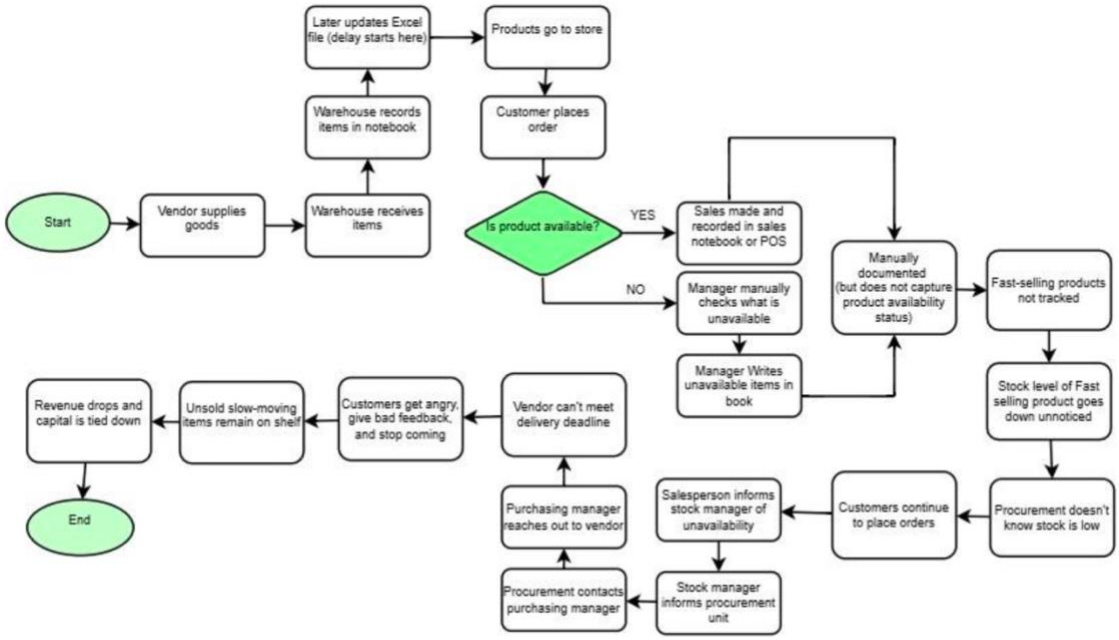
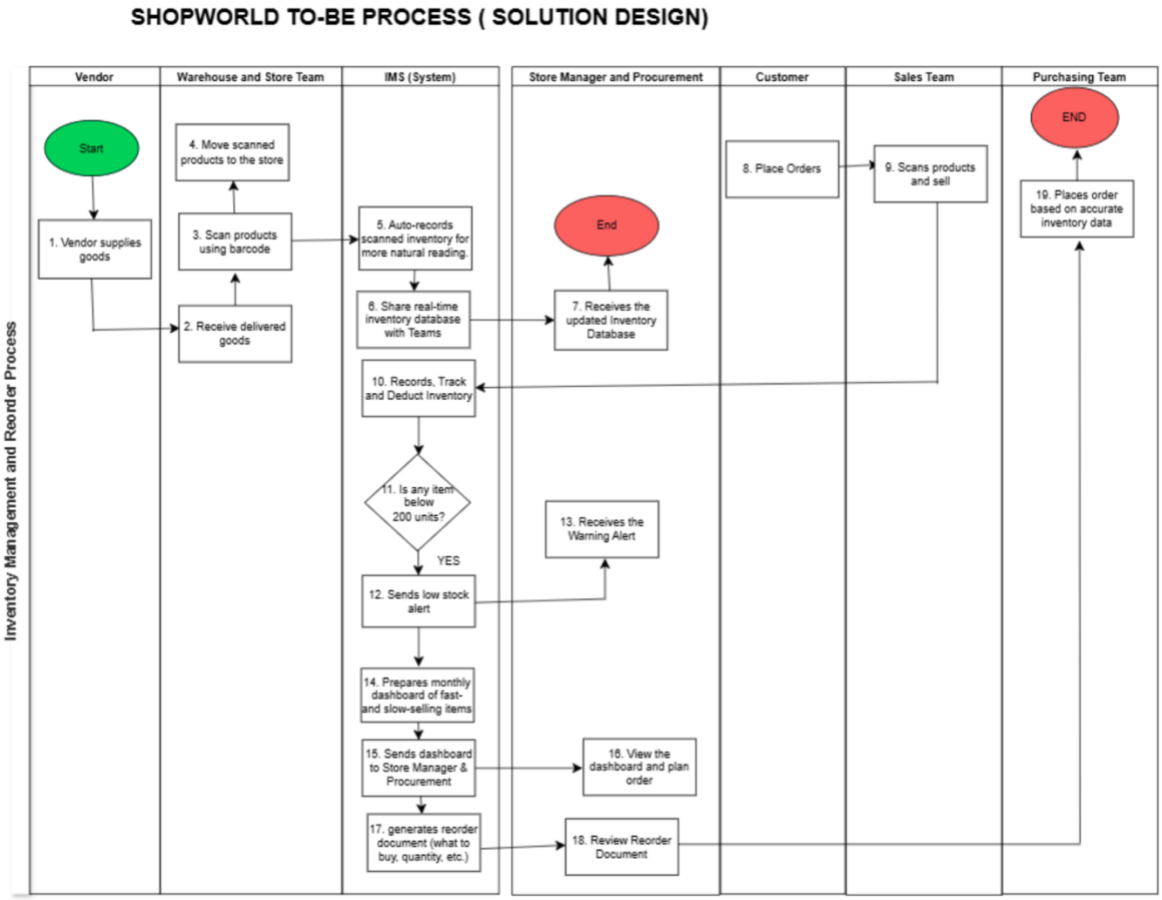


Fig 1.2 SHOPWORLD INVENTORY AS-IS PROCESS

The To-Be process shows how the recommended system will work in a real business setting. It explains how roles such as warehouse staff, sales team, procurement, and purchasing will interact with the system to complete daily tasks more accurately and faster.



Use Case: How the ShopWorld Inventory System Will Work (Step-by-Step)

Each process below illustrates how the functional features will play out in real business operations.

1. Setting Up the System

• Barcode scanners are installed in each department: sales, store, procurement.

• All products are labeled with barcodes.

• Inventory software is installed on a central server or cloud.

• Barcode scanners, SMS gateway (e.g., Vellamet), and dashboard tools (e.g., Power BI)

are integrated into the system.

2. Real-Time Inventory Tracking

• When stock arrives, the store officer scans the barcode.

• The system updates the inventory immediately.

• When stock is moved to another department or sold, it is scanned again.

• Stock count adjusts automatically in real time — accessible to all departments.

3. Automatic Alerts for Low Stock

•The system checks product levels continuously.

•If an item falls below its set minimum threshold:

•It triggers an SMS alert to the procurement officer.

•The alert is sent instantly via the integrated SMS gateway (e.g., Digitext).

•Procurement is notified early, avoiding stockouts.

4. Dashboards for Fast and Slow-Selling Items

• The system logs all sales and product movement.

• This data is automatically sent to dashboard tools like Power BI.

•Managers can view:

- Bestselling products
- Overstocked/slow-moving items

• Dashboards are accessible via computer or phone — enabling faster business decisions.

5. Barcode Scanning for Instant Updates

•Each movement of a product is captured through scanning.

•The system updates stock levels without manual input.

If no physical scanner is available:

•Staff can use a smartphone app to scan and update inventory on the go.

6. Unified Inventory Access for All Departments

• The system runs on a central database (cloud-based or LAN).

• Sales, warehouse, and procurement teams use the same platform.

• Everyone sees the same, real-time inventory data — eliminating duplication and

confusion.

7. Automatic Reorder Request Generation

• When stock hits the reorder level:

- The system not only alerts procurement but also generates a reorder request.
- The request can be auto-filled with product details and sent by email or saved as a document.
- Reorder levels can be customized per product, based on sales frequency and supplier lead time.