SHOPWORLD Inventory System Feasibility and Requirement Analysis

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1. Feasibility Assessment Document

Feature / Solution	Budget Feasibility	Technology Feasibility	Timeline Feasibility (May to Sept)	Notes / Brands Available in Nigeria
Real-time Inventory Tracking	Affordable; barcode scanners cost ₦15,000-₦40,000 each, software costs vary but within budget	Barcode scanning technology and inventory software available locally	Feasible within timeline; setup and training possible by September	Brands: Honeywell, Zebra; Software: TradeDepot, Shopstar Nigeria
Automatic Alerts for Low Stock	SMS alerts cost ₦1.30–₦2.50 per message, fits budget	SMS Gateway providers available in Nigeria (Vellamet SMS, Digitext)	Feasible; integration can be done within timeline	SMS Gateway: Vellamet, Digitext, InfotekPS
Dashboards (Fast/Slow Selling Items)	Dashboard software included in inventory solution; affordable	Power BI, Tableau alternatives available; can be integrated	Feasible; dashboard design and testing can be completed by Sept	Power BI, Metabase, or custom dashboards integrated with inventory
Barcode Scanning for Instant Updates	Barcode scanners affordable and available	Barcode scanners and software are available locally	Feasible; setup and training needed	Same brands as inventory tracking
Unified Inventory Access (Sales,	Centralized software	Cloud or local server solutions	Feasible; setup and testing	Cloud services (Azure, AWS

Procurement, Store)	licensing fits budget	available in Nigeria	needed within timeline	Nigeria), local providers
Automatic Reorder Request Generation	Part of inventory system features, cost included	Technology supported by inventory software	Feasible; programming rules for reorder setup needed	Included in inventory software packages

2. Critical Requirements and Trade-Offs / Risks

Requirement	Critical (Must-Have)?	Reason	Trade-offs / Risks
Real-time Inventory Tracking	Yes	Essential for accurate stock management	Initial setup time and training; requires staff discipline
Automatic Alerts for Low Stock	Yes	Prevents stockouts and supports timely ordering	SMS cost accumulates with volume; relies on network/SMS provider uptime
Dashboards for Fast/Slow Selling	Important (Should-Have)	Supports decision making and sales optimization	May need ongoing updates; requires staff training on dashboard usage
Barcode Scanning for Instant Updates	Yes	Speeds up data entry, reduces errors	Hardware failures possible; requires maintenance
Unified Inventory Access	Yes	Promotes collaboration and avoids data silos	Requires reliable network connectivity and secure access controls
Automatic Reorder Generation	Important (Should-Have)	Ensures stock replenishment without delay	May cause overstock if reorder points set incorrectly

3. Review & Prioritize Requirements (Using MoSCoW Method)

- **M (Must Have):** Critical features without which system won't function properly
  - Real-time inventory tracking
  - Barcode scanning for instant updates
  - Unified inventory access across departments
  - Automatic alerts for low stock
- **S (Should Have):** Important features that add significant value but are not blockers
  - Automatic reorder request generation
  - Dashboards for fast- and slow-selling items
- **C (Could Have):** Nice to have features that improve user experience or efficiency
  - Advanced analytics or predictive stock ordering (future feature)
- **W (Won't Have for now):** Features to postpone for later phases
  - Integration with external marketing or sales platforms (for now)

How to proceed:

1. **Focus first on all "Must Have" features** : they are essential for the system to run.
2. Next, **add "Should Have" features** to improve efficiency and decision making.
3. Finally, consider "Could Have" and "Won't Have" features later after rollout.