# **ERP Specification Document for RMG Buying Houses in Bangladesh**

# 1. Buyer Inquiry & Order Confirmation

#### Workflow

Buyer sends RFQ (Request for Quotation), sample/design details, and negotiates price and timeline. Once confirmed, an order is placed. The buying house manages buyer history, quotations, and approvals before finalizing orders.

## **ERP Features Needed**

- ❖ Buyer database with history (past orders, preferences, pricing trends)
- Inquiry management (RFQ logging, quotation templates)
- ❖ Style/Design repository with file attachments & versioning
- ❖ Order confirmation with auto-generated contracts/Proforma Invoice (PI)
- ❖ Automated reminders for pending approvals (samples, contracts)

# 2. Sampling & Approvals

#### Workflow

After order confirmation, buyers demand samples (Proto, Fit, Size Set, PP) to validate quality and design. Delays in approvals cause shipment delays.

## **ERP Features Needed**

- $\Rightarrow$  Sampling tracker (Proto  $\rightarrow$  Fit  $\rightarrow$  Size Set  $\rightarrow$  PP)
- Digital sample library (photos, comments, versioning)
- Automated notifications for pending approvals
- Quality checklist templates for each sample type
- Buyer feedback & version control

# 3. Raw Material Sourcing & Vendor Allocation

#### Workflow

Factories require timely raw materials (fabrics, trims, accessories). The buying house coordinates with vendors and allocates factories based on capacity, compliance, and buyer requirements.

## **ERP Features Needed**

- Vendor database & compliance management
- \* Raw material requisition & booking tracker
- Purchase order automation for suppliers
- Vendor allocation & line booking module
- Costing & supplier comparison tool
- ❖ Alerts for delays, compliance expiry, vendor overbooking

# 4. Production Management

#### Workflow

Factories execute production. The buying house monitors daily progress, inline inspections, and ensures orders remain on track for quality and delivery.

#### **ERP Features Needed**

- Production scheduling & line booking
- Daily/weekly production progress tracker
- Inline inspection & QA monitoring
- Exception alerts for delays/issues
- Buyer communication portal with live updates
- Digital evidence management (photos, reports)
- Vendor/factory performance tracking

# 5. Quality Assurance & Final Inspection

## Workflow

Final inspections ensure garments meet buyer quality standards before shipment. Inline and final inspections are critical checkpoints to avoid rejection and disputes.

#### **ERP Features Needed**

- Inline inspection checklists & defect tracking
- Final inspection management with AQL scoring
- Third-party QA integration
- Digital QA reports & buyer access
- Corrective action request (CAR) tracking
- ❖ Alerts for failed inspections or pending approvals

# 6. Shipment & Logistics

## Workflow

After QA approval, shipments are booked with freight forwarders. Export documents, customs clearance, and shipment tracking ensure on-time delivery to buyers.

#### **ERP Features Needed**

- Shipment booking module
- Export document generator (Invoice, Packing List, BL, COO, GSP)
- Customs & compliance integration
- Shipment tracking & milestone updates
- Buyer communication & portal access
- Cost & freight analytics
- ❖ Alerts for pending documents, clearance delays, missed ETDs

# 7. Finance & Costing

#### Workflow

Financial tracking ensures profitability and smooth payment collection. Cost sheets are prepared pre-order, invoices post-shipment, and receivables monitored for cash flow.

## **ERP Features Needed**

- Cost sheet automation
- Buyer invoice generation (linked to shipment)
- ❖ Accounts receivable tracker with reminders
- Profitability analysis (order, buyer, season)
- Buyer/vendor financial performance reports
- Integration with accounting systems
- ❖ Alerts for underpriced orders, overdue payments, currency risks

# 8. Post-Order Analysis & Reporting

#### Workflow

Completed orders are reviewed for performance. Analysis covers buyer satisfaction, vendor performance, profitability, and lessons learned to improve future operations.

#### **ERP Features Needed**

- Order performance dashboards
- Buyer performance analytics
- Vendor/factory scorecards
- Financial & profitability reports
- Exception & risk reporting

- Predictive insights (AI-driven forecasting, risk scoring)
- Top management dashboards (consolidated KPIs)

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# 1. Core Functionalities (Highest Priority - Must-Have)

These are the backbone features that directly solve the current manual workflow challenges.

# a) Buyer & Order Management

- Buyer database with contact history
- Buyer inquiry module (RFQs, sample requests, approvals)
- Order confirmation & contract management
- Style/Design specification management (with attachments & versioning)
- Order tracker (quantity, delivery date, buyer PO link)

# b) Vendor/Factory Management

- Factory database (capacity, compliance certifications, past performance)
- Vendor assignment & production allocation
- Subcontractor management (if used)
- Compliance & audit tracking

# c) Production & Workflow Management

- Pre-production approvals (fabric, trims, accessories)
- Sampling (proto, fit, size set, PP sample) management
- Production order scheduling (line booking, cutting, sewing, finishing)
- Inline and final inspection checklists
- Shipment readiness tracker

## d) Shipment & Logistics Management

Packing list automation

- Shipment booking & coordination
- Export documentation (PI, Invoice, Packing List, BL, Customs docs)
- Shipment tracker with milestones (ex-factory, vessel booking, port clearance)
- Buyer notifications (status updates, ETD/ETA)

# 2. Process Automation (High Priority - Efficiency Boosters)

Designed to eliminate repetitive manual tasks.

- Auto-generate Proforma Invoice, Work Orders, and Commercial Invoices
- Automated reminder system (pending approvals, shipment deadlines)
- Email/SMS/WhatsApp integration for buyer & vendor updates
- Smart document repository (auto-tagging, search, retrieval)
- Barcode/RFID-based production tracking (optional advanced feature)

# 3. Resource Optimization (Medium-High Priority)

Reduces manpower dependency and operational overhead.

- Task management with role-based assignment
- HR & Payroll (basic version for small buying houses, optional advanced module)
- Document digitization & template management (L/C, invoices, approvals)
- Raw material requisition and sourcing tracker (fabrics, trims, accessories)
- Costing & profitability analysis (per order, per buyer)

# 4. Real-Time Monitoring & Reporting (Critical for Management)

Dashboards and analytics to keep leadership in control.

- Order status dashboard (Pending, In Production, Shipped)
- Buyer performance analysis (on-time delivery %, order value, repeat orders)
- Vendor performance scorecard (quality %, shipment punctuality, rejection rate)

- Financial dashboard (order-wise cost, margin, receivables)
- Exception alerts (delayed orders, compliance expiry, pending shipments)

# 5. Integration Capabilities (Future-Proof - Medium Priority)

Ensuring smooth external connectivity.

- Integration with shipping lines & freight forwarders (API-based where possible)
- Customs clearance & bond management linkage (EDI, NBR system if feasible)
- Buyer-side ERP/Portal integration (for large global brands)
- Accounting software sync (Tally, QuickBooks, SAP B1, etc.)

#### 6. Scalability & Security (Continuous Priority)

The foundation for sustainable adoption.

- Multi-user role-based access control (Admin, Merchandiser, QA, Logistics, Finance)
- Cloud-based & on-premise deployment options
- Encrypted data storage & secure communication (SSL, 2FA)
- Audit trail (who changed what, when)
- Scalable architecture (support for multiple buyers, factories, orders)

# Recommended ERP Module Breakdown

Here's how the system could be modularized for clarity:

- 1. **CRM Module** → Buyer & Order Management
- 2. **Vendor/Production Module** → Vendor allocation, workflow, quality checks
- 3. **Logistics & Documentation Module** → Shipment, customs, export docs
- 4. **Finance & Costing Module** → Cost analysis, invoices, profit margins
- 5. **Task & Communication Module** → Reminders, approvals, notifications
- 6. **Dashboard & Analytics Module** → Real-time insights for management

7. **Integration & Security Module** → APIs, external systems, data protection

# **OPERATE SET OF SET OF**

Since buying houses vary in size and maturity, rollout should be staged:

- 1. **Phase 1 (Must-Have, 3–6 months):** Buyer/Order Mgmt, Vendor Mgmt, Production Workflow, Shipment & Docs
- 2. **Phase 2 (Efficiency Boost, 6–12 months):** Automation, Costing & Resource Optimization, Dashboards
- 3. **Phase 3 (Advanced, 12+ months):** API Integrations, RFID/barcode tracking, AI-powered predictive analytics

# **RMG Buying House ERP Doc**

# Stage: 1. Buyer Inquiry & Order Confirmation

# **Workflow Description**

This is the **first and most critical step** in a buying house operation. It sets the foundation for the entire order lifecycle.

- A foreign buyer (brand, retailer, wholesaler) sends a Request for Quotation (RFQ) to the buying house. This typically includes product specifications (style, fabric, trims), expected order quantity, target price, and delivery timeline.
- The buying house merchandiser team evaluates the request, checks with potential factories, and prepares a **quotation** for the buyer. This may involve multiple rounds of **negotiations** on price, MOQ (Minimum Order Quantity), shipment mode (air/sea), and delivery timeline.
- Buyers often require **sample submissions** (proto or fit samples) before confirming an order. These approvals are vital to avoid disputes later.
- Once buyer and buying house agree on terms, an official order is placed, and a contract/Proforma Invoice (PI) is issued to formalize the commitment.
- Any delay, miscommunication, or missing documentation at this stage leads to disputes, financial loss, or even cancellation of the order. That's why ERP support here is essential.

## **ERP Features Needed**

#### 1. Buyer Database with History

- ✓ Maintain a centralized record of all buyers (brands, agents, retailers).
- ✓ Store past orders, payment terms, shipment punctuality, and communication logs.
- ✓ Track buyer preferences: fabric types, trims, preferred factories, compliance requirements.
- ✓ Analytics on **pricing trends** and order patterns to strengthen negotiations.

*Impact:* Saves time by avoiding repetitive inquiries, gives historical insights for pricing negotiations, and ensures better buyer relationship management.

# 2. Inquiry Management (RFQ Logging & Quotation Templates)

- ✓ Dedicated module to log every incoming RFQ with details: product, quantity, target price, timeline.
- ✓ Standardized **quotation templates** to quickly prepare and send offers to buyers.
- ✓ Comparison tool to check profitability and feasibility against production capacity and vendor offers.
- ✓ Status tracker: RFQ  $\rightarrow$  Quotation Sent  $\rightarrow$  Negotiation  $\rightarrow$  Accepted/Rejected.

*Impact:* Eliminates missed inquiries, speeds up response time, and helps management track win/loss ratios of quotations.

# 3. Style/Design Repository with File Attachments & Versioning

- ✓ A **digital library** for product styles, tech packs, CAD drawings, and buyer comments.
- ✓ Version control for design changes (so latest approved file is always accessible).
- ✓ Tagging system (buyer, season, style number) for quick retrieval.
- ✓ Restricted access (design-sensitive information is only visible to authorized staff).

*Impact:* Prevents errors from outdated files, reduces confusion in design approvals, and ensures that production always works with the latest buyer-approved specifications.

## 4. Order Confirmation with Auto-Generated Contracts/Proforma Invoice (PI)

- ✓ Once an order is confirmed, ERP should automatically generate:
  - **Contracts/Agreements** with agreed terms.
  - Proforma Invoice (PI) including buyer details, product info, price breakdown, delivery terms, and payment schedule.
- ✓ Link PI with the buyer order record and factory allocation.
- ✓ Digital approval workflow (e-signature or email confirmation) to formalize commitments.

*Impact:* Ensures legal & financial clarity, avoids disputes, and establishes a binding record between buyer and buying house.

# 5. Automated Reminders for Pending Approvals (Samples, Contracts)

- ✓ Automatic alerts for:
  - Pending sample approvals (proto, fit, PP samples).
  - Pending contract/PI approvals.
  - Approaching deadlines for buyer confirmation.
- ✓ Notifications sent via email/SMS/WhatsApp to both buyer and internal merchandiser.
- ✓ Escalation system for overdue approvals (notifies senior management).

*Impact:* Prevents approval bottlenecks, reduces shipment delays caused by late buyer responses, and keeps order flow smooth.

- **4 80% of order problems** in buying houses start here unclear terms, missing approvals, wrong design versions.
- A robust ERP system ensures clarity, accountability, and speed at the inquiry & confirmation stage.
- ♣ By digitizing this step, management gets real-time visibility of all active inquiries and confirmed orders, helping them forecast revenue and allocate factory capacity better.

# Stage: 2. Sampling & Approvals

# **Workflow Description**

In the RMG buying house workflow, **sampling is the bridge between order confirmation and bulk production**. Buyers want to ensure that the product matches their design, quality expectations, and fit before green-lighting full-scale production.

- After receiving an order, the buying house coordinates with factories to prepare different types of samples:
  - o **Proto Sample** → To check overall design & look.
  - $\circ$  **Fit Sample**  $\rightarrow$  To check size, measurements, and fitting accuracy.
  - $\circ$  **Size Set Sample**  $\rightarrow$  To verify all ordered sizes are accurate.
  - o **Pre-Production (PP) Sample**  $\rightarrow$  To finalize materials, trims, and production readiness.
- These samples are shipped or digitally shared with buyers for **approval/revisions**.
- Buyers may request **multiple revisions** before giving the green signal.
- Any delay in approval creates a **domino effect**, pushing back production and shipment schedules.

That's why the ERP system needs strong sampling management features.

#### **ERP Features Needed**

- 1. Sampling Tracker (Proto  $\rightarrow$  Fit  $\rightarrow$  Size Set  $\rightarrow$  PP)
  - ✓ Centralized workflow to manage the **entire sampling lifecycle**.
  - ✓ Each sample type logged with:
    - Sample request date
    - Factory/vendor responsible
    - Courier/shipment details
    - Buyer feedback & approval status
  - ✓ Visual status board (Pending, Under Review, Approved, Rejected).

*Impact:* Keeps sampling workflow transparent, prevents missed samples, and ensures timely buyer approvals.

# 2. Digital Sample Library

- ✓ Secure repository to store **sample photos**, **measurements**, **comments**, **and revisions**.
- ✓ Tagged by buyer, season, style number, or factory for quick retrieval.
- ✓ Side-by-side comparison of different versions (before/after changes).
- ✓ Searchable archive (useful for future re-orders of similar styles).

*Impact:* Reduces dependency on physical files, avoids repeating past mistakes, and creates a knowledge base for future projects.

## 3. Automated Notifications & Reminders

- ✓ Automatic alerts for:
  - Sample submission deadlines to factory.
  - Buyer approvals pending beyond X days.
  - Internal merchandiser reminders to follow up.
- ✓ Notifications via **email/SMS/WhatsApp** to buyers and merchandisers.
- ✓ Escalation to management if approvals are stuck (to avoid shipment delays).

*Impact:* Reduces communication gaps, keeps everyone accountable, and speeds up approvals.

## 4. Quality Checklist Templates

- ✓ Built-in checklists for each sample type (design, stitching, fabric, trims, labeling, packaging).
- ✓ Customizable per buyer (some buyers have strict compliance).
- ✓ ERP-generated inspection reports with pass/fail status.
- ✓ Photo uploads and digital sign-off (by QA team or merchandiser).

*Impact:* Ensures consistent evaluation standards, reduces rejection risk later in production.

# 5. Buyer Feedback & Version Control

- ✓ Digital log of buyer's comments for each sample.
- ✓ Version control for revised samples → ensures only the latest approved sample is used in production.
- ✓ Document trail (who approved what, when) for accountability.

*Impact:* Prevents errors due to using outdated or rejected samples, reduces disputes with buyers.

- Sampling delays are one of the top 3 causes of late shipments in Bangladesh's RMG exports.
- ♣ Manual sample follow-ups (via calls & emails) often get lost or delayed.
- **ERP** digitization gives **visibility**, **traceability**, **and speed**.
- Buyers also feel more confident when they can track sample status in real time (via a portal/dashboard).

# Stage: 3. Raw Material Sourcing & Vendor Allocation

# **Workflow Description**

After an order and samples are approved, the next crucial step is **sourcing raw materials** (fabric, trims, accessories) and allocating the right **factories/vendors** to execute the production.

- Fabric Booking: Buying house coordinates with mills (local or international) for fabric production/booking.
- Trims & Accessories: Labels, buttons, zippers, hangtags, polybags, cartons sourced from specialized suppliers.
- Vendor/Factory Selection: Based on buyer requirements (compliance, capacity, lead time, past performance), a factory is chosen for production.
- Material Tracking: Ensuring timely arrival of fabric and trims at the factory is critical to start bulk production on time.
- Compliance Checks: Buyers often require factories to hold certifications (WRAP, BSCI, Accord, Sedex, etc.). Compliance expiry or mismatch can disqualify a vendor.

Delays in raw material arrival or wrong vendor allocation are **major causes of shipment delays** in Bangladesh's RMG sector.

#### **ERP Features Needed**

## 1. Vendor Database & Compliance Management

- ✓ Centralized vendor/factory database with:
  - Capacity (monthly production ability, machine count, skilled labor availability).
  - Specialization (knit, woven, denim, outerwear).
  - Compliance certifications (expiry dates, buyer-specific approvals).
  - Past performance (on-time %, rejection rate, shipment value handled).
- ✓ Automatic reminders for compliance renewals (e.g., BSCI expires next month).
- ✓ Vendor ranking based on performance KPIs.

*Impact:* Helps select the right factory instantly, reduces buyer compliance risks, ensures transparency.

# 2. Raw Material Requisition & Booking Tracker

- ✓ Fabric booking log (with mill, expected delivery, lot numbers).
- ✓ Trims & accessories requisition sheet (buttons, zippers, hangtags, polybags, cartons).
- ✓ Status tracker: Ordered  $\rightarrow$  In Transit  $\rightarrow$  Received  $\rightarrow$  Delivered to Factory.
- ✓ Integration option with bonded warehouse/customs system (for imported fabric).
- ✓ Alerts for delays (e.g., fabric still not shipped after expected date).

*Impact:* Prevents production delays by tracking fabric/trims in real-time, improves accountability of suppliers.

# 3. Purchase Order (PO) Automation

- ✓ Auto-generate **POs for raw material suppliers** based on buyer order specs.
- ✓ Templates with buyer style reference, fabric type, trims quantity.
- ✓ Linked with order & vendor module to maintain traceability.
- ✓ Digital PO approval workflow (merchandiser  $\rightarrow$  manager  $\rightarrow$  supplier).

*Impact:* Saves manual effort, reduces errors in booking, keeps supplier commitments clear.

## 4. Vendor Allocation Module

- ✓ Match buyer order with best-suited vendor (based on compliance, capacity, specialization).
- ✓ Line booking & production allocation visible to both management and factory.
- ✓ Alerts if vendor is overbooked (capacity exceeded).
- ✓ Option to split orders between multiple vendors (e.g., 50% Factory A, 50% Factory B).

*Impact:* Optimizes production planning, avoids overloading one factory, minimizes late shipments.

## 5. Costing & Supplier Comparison Tool

- ✓ Side-by-side comparison of material suppliers (price, lead time, past reliability).
- ✓ Cost sheet updated automatically when selecting vendors.
- ✓ Profitability calculation: Total material cost vs buyer order value.

*Impact:* Ensures cost-effective sourcing decisions, prevents hidden losses, increases negotiation power.

# 6. Alerts & Exceptions

- Fabric not yet shipped 10 days before production start.
- Trim supplier delayed by 5 days.
- Vendor compliance expired.
- Factory already overbooked but new order allocated.

*Impact:* Gives management early warnings to take corrective action before production is disrupted.

- **Fabric sourcing alone accounts for 60–70% of garment production lead time.** Any delay here directly delays shipment.
- Manual tracking (phone calls, Excel sheets) often misses small but critical updates.
- $\downarrow$  Wrong vendor allocation  $\rightarrow$  late shipments, quality issues, buyer dissatisfaction.
- **ERP** ensures **transparency**, **speed**, **and accountability**, helping buying houses act as reliable partners to buyers.

# **Stage: 4. Production Management**

# **Workflow Description**

Once raw materials are sourced and vendors are allocated, the bulk **production process begins in the factories**. The buying house plays a **liaison and supervisory role** — ensuring that factories stick to the agreed timeline, quality standards, and buyer requirements.

- **Example 2 Line Booking:** Factories allocate production lines for each order.
- **Daily Production Tracking:** Merchandisers/production officers follow up daily with sewing, finishing, and packing progress.
- Inspections: Inline inspections happen at different stages (cutting, sewing, finishing) to catch quality issues early.
- **Communication:** Buyers are frequently updated about production status and ETD (Estimated Time of Delivery).
- **Delays:** Production bottlenecks (machine breakdowns, labor shortages, fabric arrival delays) are common and need immediate reporting.

Without automation, most of this is tracked via spreadsheets, phone calls, and manual reports — making it **slow, error-prone, and stressful**.

#### **ERP Features Needed**

## 1. Production Scheduling & Line Booking

- ✓ Calendar-based **line booking system** for factories.
- ✓ Assign production lines per style/order with start and finish dates.
- ✓ Visual Gantt chart to track overlapping orders and factory capacity.
- ✓ Alerts if production schedule conflicts with other orders.

*Impact:* Prevents overbooking, ensures clear visibility of factory capacity, and helps reschedule quickly in case of delays.

## 2. Daily/Weekly Production Progress Tracker

✓ Factory uploads **daily output data** (cutting, sewing, finishing, packing).

- ✓ Planned vs Actual comparison (progress %).
- ✓ Automatic status update on ERP dashboard for buyers and managers.
- ✓ Ability to upload supporting files/photos for transparency.

*Impact:* Reduces daily follow-up phone calls, gives management real-time progress, and allows buyers to stay informed.

# 3. Inline Inspection & QA Monitoring

- ✓ Checklists for cutting, sewing, and finishing stages.
- ✓ QA officers record **pass/fail rate**, **defect reasons**, **photos** via mobile/tablet.
- $\checkmark$  Real-time defect tracking (e.g., 5% defects in sewing  $\rightarrow$  immediate action).
- ✓ Analytics for rejection trends (by factory, by product type).

*Impact:* Ensures consistent quality, avoids last-minute rejections, and reduces risk of shipment delays due to poor quality.

# 4. Exception Alerts (Delays & Issues)

- $\triangleright$  A Fabric not received  $\rightarrow$  production start delayed.
- ➤ **A** Sewing output behind schedule by 15%.
- ➤ Inline inspection failed at 10% defect rate.
- ➤ Worker strike/labor shortage alert reported from factory.
- > System sends automatic escalation to senior management.

*Impact:* Early warnings allow proactive corrective action (e.g., shifting production to another vendor, increasing overtime, or fast-tracking shipments).

## 5. Buyer Communication & Visibility

- ✓ Buyers can access a **secure portal/dashboard** to see live production status.
- ✓ Automatic weekly progress reports emailed to buyers.

- ✓ Approval workflow for production changes (timeline extensions, quantity adjustments).
- ✓ *Impact:* Builds buyer trust, reduces endless back-and-forth emails, and makes the buying house more professional and transparent.

# 6. Document & Evidence Management

- ✓ Upload work-in-progress photos, inspection reports, videos.
- ✓ Maintain production file history per order (helpful for disputes).
- ✓ Attach corrective action reports for quality issues.

*Impact:* Creates a digital audit trail, protects buying house against disputes, improves accountability of factories.

# 7. Vendor/Factory Performance Tracking

- On-time delivery rate % (order-wise, factory-wise).
- Production efficiency (planned vs actual output per day).
- Defect percentage across different production stages.
- Ranking dashboard (best → worst performing factories).

*Impact:* Helps management identify reliable vendors and phase out weak ones, leading to long-term efficiency gains.

- **4 70% of buyer complaints** come from production delays or quality issues.
- Manual supervision = high manpower cost + incomplete visibility.
- ERP ensures:
  - Real-time monitoring of output and quality.
  - Proactive alerts for problems before they escalate.
  - Transparency that boosts buyer confidence and repeat orders.

# Stage: 5. Quality Assurance (QA) & Final Inspection

## **Workflow Description**

Before garments are shipped, they must pass strict **quality checks** to meet buyer standards. Any failure at this stage can cause **shipment delays**, **air freight costs**, **penalties**, **or even cancellation of the order**.

- Inline Inspections: Conducted at cutting, sewing, finishing stages to catch defects early.
- Final Inspection: Conducted once garments are fully packed, based on AQL (Acceptable Quality Level) or buyer-specific standards.
- \* Buyer/Third-Party Inspections: Some buyers send their own QA team or request third-party auditors (e.g., SGS, Bureau Veritas, Intertek).
- **Documentation:** Inspection reports are shared with buyers for shipment clearance.

Currently, many buying houses track inspections in **Excel sheets, emails, or handwritten reports** — making it prone to human error and delays.

#### **ERP Features Needed**

#### 1. Inline Inspection Module

- ✓ Pre-set **inspection checklists** (stitching, measurements, labels, trims, packaging).
- ✓ Digital defect logging (with defect type, quantity, %).
- ✓ Upload photos/videos as evidence.
- ✓ Real-time defect alerts to merchandiser & factory.
- ✓ Pass/Fail status updated instantly on ERP.

*Impact:* Catches defects early, reduces rejection at final stage, minimizes rework and wastage.

#### 2. Final Inspection Management

- ✓ Automated scheduling of final inspection (linked to shipment date).
- ✓ AQL-based evaluation (e.g., Acceptable Quality Level 2.5).
- ✓ Digital scoring system: Pass/Fail with detailed remarks.

- ✓ E-signature enabled inspection reports for buyer/QA managers.
- ✓ Auto-generated **Final Inspection Report (FIR)** ready for buyer submission.

*Impact:* Ensures consistency, speeds up buyer approval, avoids last-minute shipment blocks.

# 3. Third-Party QA Integration

- ✓ Option to **invite third-party inspectors** via ERP.
- ✓ Share style files, order details, and checklists securely.
- ✓ Third-party reports uploaded directly into ERP (no email chains).
- ✓ Buyer can access third-party inspection results via portal.

*Impact:* Builds buyer confidence, reduces communication errors, makes ERP a single source of truth.

# 4. Digital QA Reports & Buyer Access

- ✓ Centralized repository of all QA reports (inline + final).
- ✓ PDF/Excel export for buyers, linked to each order.
- ✓ Secure **buyer login portal** to view inspection outcomes.
- ✓ Trend reports: Defect % by style, by vendor, by season.

*Impact:* Creates transparency, enhances professionalism, reduces disputes with buyers.

# 5. Corrective Action Tracking

- ✓ When inspection fails, ERP automatically generates a Corrective Action Request (CAR).
- ✓ Assigns responsibility to factory/vendor.
- ✓ Tracks resolution (e.g., re-sewing, re-packing, trimming correction).
- ✓ Updates status once resolved and re-inspected.

*Impact:* Prevents repetitive mistakes, improves vendor accountability, ensures timely corrective measures.

#### 6. Alerts & Escalation

- A Inline inspection failure > 10% defect rate.
- $\triangle$  Final inspection failed  $\rightarrow$  shipment on hold.
- Buyer approval pending > 3 days.
- Escalates to management automatically if issues remain unresolved.

*Impact:* Keeps management informed before problems escalate into costly shipment delays.

- **♣** Quality is the **#1 reason buyers switch sourcing partners** one failed shipment can destroy a relationship.
- ♣ Manual QA = inconsistent standards, late reporting, hidden problems.
- **ERP** ensures:
  - Standardized QA processes across vendors.
  - **Real-time inspection updates** to buyers.
  - Digital evidence for disputes.
  - A **compliance trail** that strengthens the buying house's credibility.

# **Stage: 6. Shipment & Logistics**

# **Workflow Description**

After final inspection approval, the order moves into **shipment preparation**. This involves coordinating with freight forwarders, preparing export documents, clearing customs, and updating buyers with shipping details.

- **Booking Shipments:** Arranging space with shipping lines/airlines (often via freight forwarders).
- **Export Documentation:** Commercial invoice, packing list, bill of lading (BL), certificate of origin, GSP (Generalized System of Preferences), and buyer-specific documents (L/C-related).
- **Customs Clearance:** Coordinating with bonded warehouses, customs, and port authorities.
- **Shipment Tracking:** Monitoring goods from ex-factory to vessel loading and final delivery (ETD  $\rightarrow$  ETA).
- **Buyer Updates:** Buyers demand real-time updates on shipment status to plan retail launches.

Manual handling often causes **document errors**, **missed deadlines**, **and communication gaps**, leading to penalties, air shipments (extra cost), or shipment rejection at destination ports.

# **ERP Features Needed**

## 1. Shipment Booking Module

- ✓ Record freight forwarder details (shipping line, airline, booking number).
- ✓ Assign shipment mode (Sea, Air, Courier).
- ✓ Reserve space for containers/cargo.
- ✓ Link shipments directly to buyer orders.
- ✓ Dashboard showing upcoming shipments (by date, mode, forwarder).

*Impact:* Centralizes all shipment bookings, avoids double-booking, keeps forwarder coordination transparent.

## 2. Export Document Generator

- ✓ Auto-generate all export documents:
  - Commercial Invoice (CI)
  - Packing List (PL)
  - Bill of Lading (BL) / Airway Bill (AWB)
  - Certificate of Origin (COO)
  - **GSP, L/C Documents** (if applicable)
- ✓ Pulls data directly from confirmed orders (buyer, style, qty, FOB price, etc.) → reduces manual entry errors.
- ✓ Digital approval workflow for document verification.

*Impact:* Speeds up document preparation, minimizes human error, ensures compliance with buyer/bank requirements.

# 3. Customs & Compliance Integration

- ✓ Customs clearance tracker (submission date, clearance status).
- ✓ Integration with **bonded warehouse systems** (if possible, via API/EDI).
- ✓ Alerts for missing customs paperwork.
- ✓ Compliance log for buyer-specific export rules (e.g., EU GSP, US LDP).

*Impact:* Avoids shipment blocks, reduces clearance delays, ensures smooth compliance handling.

# 4. Shipment Tracking & Milestone Updates

- ✓ Shipment timeline
  - Ex-Factory → Port-in → Vessel Departure (ETD) → Vessel Arrival (ETA) → Buyer Warehouse.
- ✓ GPS/API integration with forwarders (optional advanced feature).
- ✓ Real-time status updates accessible to buyers via portal.
- ✓ Exception alerts for delays, transshipments, port congestion.

*Impact:* Gives both buying house & buyers full visibility, reduces "where is my shipment?" calls, strengthens trust.

# **5. Buyer Communication & Portal Access**

- ✓ Buyers receive automated updates on shipment milestones.
- ✓ Access to downloadable export documents from buyer portal.
- ✓ Notification if shipment is delayed or rescheduled.
- ✓ Option for buyers to upload their own shipping instructions (marking/labelling rules).

*Impact:* Enhances buyer confidence, reduces manual email chains, builds professionalism.

# 6. Cost & Freight Analytics

- ✓ Freight cost recording per shipment (Air vs Sea).
- ✓ Analysis of **freight cost as % of total order value**.
- ✓ Reports on late shipments, extra costs (e.g., airfreight due to delays).
- ✓ Vendor accountability (if delays were caused by factory or material suppliers).

*Impact:* Identifies hidden costs, supports negotiation with freight forwarders, improves profitability.

## 7. Alerts & Exception Handling

- Export documents pending 3 days before shipment.
- Customs clearance stuck.
- > **A** Shipment delayed at port.
- ➤ **△** ETD missed, reschedule required.

*Impact:* Keeps management aware of risks before they escalate into penalties or shipment cancellations.

- **Export documentation errors** are one of the top reasons for shipment delays in Bangladesh.
- **♣** Miscommunication with freight forwarders → costly air shipments.
- Without digital visibility, buyers lose trust and may shift orders to other sourcing hubs (Vietnam, India, etc.).
- **ERP** ensures:
  - **Accurate documents** generated instantly.
  - **Real-time visibility** of shipments.
  - **Faster communication** with buyers & forwarders.
  - **Early warnings** to avoid last-minute crises.

# Stage: 7. Finance & Costing

# **Workflow Description**

Finance in a buying house is more complex than simple income and expenses. It involves:

- Costing Before Order Confirmation: Buyers request target prices. Buying house calculates fabric, trims, labor, freight, overheads, commissions → to check if profitable.
- **Commercial Invoices & Payment Terms:** Once shipment is ready, invoices are issued to buyers (linked to L/C, TT, or open account).
- **Payments Tracking:** Managing receivables, due dates, and overdue payments.
- Profitability Analysis: After shipment, management reviews actual cost vs agreed price.
- **Buyer-wise Performance:** Identifying which buyers bring higher margins and which cause financial stress.

Currently, most buying houses prepare costing in **Excel sheets** and track payments manually — leaving high room for **errors, cashflow stress, and weak profitability monitoring**.

#### **ERP Features Needed**

#### 1. Cost Sheet Automation

- ✓ Auto-generate order costing based on:
  - Fabric (price, consumption, wastage %)
  - Trims & accessories
  - Labor & overheads
  - Freight & logistics costs
  - Buying house service/commission fees
- ✓ Template-driven, customizable for different buyers.
- ✓ Scenario comparison (target price vs actual costing).

*Impact:* Prevents underquoting, improves negotiation confidence, ensures every order is profitable before acceptance.

## 2. Buyer Invoice Generation

- ✓ Auto-generate **Commercial Invoices (CI)** linked to confirmed orders & shipments.
- ✓ Supports multiple payment methods:
  - L/C (Letter of Credit)  $\rightarrow$  auto-match with banking docs.
  - T/T (Telegraphic Transfer).
  - Open account (credit-based).
- ✓ Currency support (USD, EUR, GBP) with exchange rate management.
- ✓ Digital invoice approval workflow (from finance manager).

*Impact:* Reduces manual errors, speeds up invoice preparation, ensures compliance with banking and buyer requirements.

#### 3. Accounts Receivable Tracker

- ✓ Centralized dashboard of buyer payments:
  - Paid, Partially Paid, Pending, Overdue.
- ✓ Automatic reminders for overdue payments.
- ✓ Buyer credit history (average payment delay, disputes).
- ✓ Integration with shipment & bank records (to match L/C payments).

*Impact:* Improves cashflow visibility, reduces overdue risks, helps management forecast working capital needs.

# 4. Profitability Analysis

- ✓ Order-wise profit margin calculation: Buyer Price Total Cost.
- ✓ Buyer-wise profitability: Long-term value analysis.
- ✓ Factory/vendor contribution to cost vs quality performance.
- ✓ Seasonal profitability reports (e.g., Summer '25 vs Winter '25).

*Impact:* Helps management identify profitable vs non-profitable buyers, streamline vendor relationships, and focus on high-margin segments.

# **5. Buyer & Vendor Performance Financial Reports**

- ✓ Buyer rating: On-time payment %, profitability, repeat orders.
- ✓ Vendor rating: Cost competitiveness vs quality delivered.
- ✓ Dynamic reporting (pivot-style dashboards).

*Impact:* Informs strategic decisions on which buyers/vendors to prioritize or avoid.

# 6. Integration with Accounting Systems

- ✓ Sync with existing accounting solutions (Tally, QuickBooks, SAP B1, Xero).
- ✓ Export finance data (invoices, payments, costing) for external audits.
- ✓ Custom reports for taxation & compliance.

*Impact:* Ensures smooth audit, regulatory compliance, and accounting standardization.

# 7. Alerts & Exceptions

- Order quoted below cost price.
- Buyer payment overdue > 30 days.
- Exchange rate fluctuations affecting margins.
- Repeated losses on same buyer/vendor combination.

*Impact:* Protects financial health, prevents risky orders, and strengthens decision-making.

- **♣** Buying houses operate on **thin margins (3–7%)**. One wrong costing can wipe out profit.
- ♣ Manual finance = delayed insights, hidden losses, cashflow problems.
- **ERP** ensures:

- Transparent **costing & profitability** before committing to an order.
- Accurate invoices linked to shipments.
- Real-time payment visibility to prevent overdue risks.
- Buyer/vendor financial performance insights → guiding strategy.

# Stage: 8. Post-Order Analysis & Reporting

# **Workflow Description**

Once an order has been produced, inspected, and shipped, the buying house must conduct **post-order evaluation**. This stage is not about execution but about **learning**, **analyzing**, **and improving** future operations.

- **Buyer Review:** Was the buyer satisfied with quality, delivery, and communication?
- Wendor Evaluation: Did the factory/vendor meet deadlines, quality, and compliance standards?
- \* Financial Review: Was the order profitable? Were there hidden costs (air freight, rework, buyer deductions)?
- Management Reporting: Senior management needs consolidated dashboards to see the big picture — which buyers, vendors, and order types bring the most value.
- \* Forecasting & Planning: Insights from completed orders help plan for upcoming seasons (Summer/Winter collections, peak months).

Without structured reporting, buying houses struggle to identify **patterns of profit/loss**, **vendor weaknesses**, **or buyer risks** — and repeat the same mistakes.

#### **ERP Features Needed**

#### 1. Order Performance Dashboard

- ✓ Consolidated overview of each completed order:
  - Planned vs Actual Production Timeline.
  - On-time delivery rate.
  - Quality performance (inspection pass %, defects).
  - Shipment delays (if any).
- ✓ Order scorecard (e.g., Green = successful, Red = delayed/problematic).

*Impact:* Immediate visibility of how each order performed and where bottlenecks occurred.

## 2. Buyer Performance Analytics

✓ Buyer rating system:

- Average order value.
- On-time payment %.
- Complaint/return rate.
- Repeat orders (loyalty metric).
- ✓ Buyer profitability trends (seasonal, yearly).
- ✓ Reports showing **which buyers strengthen vs drain business**.

*Impact:* Helps prioritize high-value buyers, renegotiate with difficult ones, and identify new opportunities.

# 3. Vendor/Factory Scorecards

- ✓ Vendor performance measured by:
  - On-time delivery %.
  - Quality pass rate %.
  - Production efficiency (output vs plan).
  - Compliance status (valid/expired).
- ✓ Vendor ranking (best  $\rightarrow$  worst) with automatic recommendations for future orders.

*Impact:* Builds a vendor performance database  $\rightarrow$  management can shift orders away from weak vendors.

# 4. Financial & Profitability Reports

- Order-wise profit/loss statement.
- Buyer-wise profitability analysis.
- Vendor contribution to cost overruns (e.g., late trims causing air shipment).
- Season-based revenue & margin breakdown (e.g., Spring 2025 vs Fall 2025).

*Impact:* Identifies hidden losses, strengthens costing accuracy for future orders, and supports better pricing strategy.

## 5. Exception & Risk Reports

- ➤ △ % of orders delayed beyond shipment deadline.
- ➤ ▲ % of orders rejected/discounted by buyers.
- Recurring issues (e.g., trims delay, quality rejections).
- ► ▲ High-risk buyers (slow payments, frequent disputes).

*Impact:* Creates actionable intelligence for management to fix recurring weaknesses.

# 6. Predictive Insights (Advanced, Phase 3)

- ✓ AI-driven demand forecasting (predicting buyer order volumes based on history).
- ✓ Predictive risk scoring (vendor reliability, buyer credit risk).
- ✓ Shipment delay prediction (based on past vendor/factory trends).

*Impact:* Shifts ERP from reactive reporting to proactive decision-making.

## 7. Management Dashboards

- ✓ One-page view for owners/CEOs with KPIs like:
  - Total Orders This Season.
  - On-Time Delivery %.
  - Total Export Value & Margin.
  - Top 5 Buyers (by value/profit).
  - Top 5 Vendors (by reliability).
  - Delayed Orders (with reasons).

*Impact:* Empowers leadership with data-driven insights at a glance, without chasing multiple reports.

# Why This Stage is Critical in ERP

Without structured analysis, mistakes repeat every season (same weak vendors, same buyer disputes).

- **♣** Post-order reports ensure **continuous improvement** and help management plan strategically.
- ♣ Buyers increasingly prefer sourcing partners who can present data-backed performance reports, which makes the buying house more credible.