

A Stitch in Time - Technology to meet Challenges of Apparel Merchandising



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By: Dr. Ela Dedhia

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Instead of relying on people to design, communicate, analyze, project and improve, fashion/apparel/accessory brands now have the digital technologies to meet these needs in a much faster way.

Apparel Industry Processes and System include:

- Concept Development
- Product Design
- Sampling
- Pre Production
- Materials Management
- Sourcing
- Vendor Management
- Production
- Store

Drawing Softwares

These are used by the Fashion Designers or Technical Designers to create drawings at various stages of a garment lifecycle.

1. Storyboard
2. Sketches
3. Measure Images
4. Construction Images
5. Packaging Instructions
6. Label and Tag Placements
7. Seams and Stitches Diagrams



3D Sampling

It simulates true to life draping, fit and design on a virtual human body in a 3D environment. It includes:

- ✚ Parametric Human Body
- ✚ Transform 2D Designs into 3D Garments
- ✚ Fabric Simulation
- ✚ Stitch Garments virtually
- ✚ Garment Fit Analysis
- ✚ 3D Range Presentation

Enterprise Resource Planning (ERP)

Enterprise resource planning (ERP) integrates internal and external management information across an entire organization, embracing finance/accounting, manufacturing, sales and service, etc.

The modules include:

- ☞ Customer Order Processing
- ☞ Purchase Order Processing
- ☞ Warehouse Management
- ☞ Finance/Costing
- ☞ Manufacturing
- ☞ Planning



Garment Order Processing

It is the most important process being carried out at export companies.

The process includes:

- ✚ Style Costing
- ✚ Order Confirmation
- ✚ Fabric Purchase order
- ✚ Accessory Purchase Order
- ✚ Final Garment Order

Pattern Grading and Marker Making

Pattern grading is the scaling of a pattern to a different size by incrementing important points of the pattern using an algorithm in the clothing and footwear industry.

Merchandise and Assortment Planning

Merchandise & Assortment Planning helps companies deliver the right products, in the right quantities and at the right time to meet local demand, maximize sales opportunities through minimized out of stocks, and thus protect margins.

- Customer based functions – Sales, Returns, Exchanges, Discounts, etc.
- Inventory Management – Inventory Control, Purchasing, Receiving and Transferring of Products
- Sales information – Reporting, Sales Trends, Cost/Price/Profit Analysis

Production Planning and Sourcing

The need for fast and effective planning demands an easy to use Planning and Sourcing tool for management of the entire supply chain, planning and monitoring all new styles/orders from initial concept to delivery.

The tool may be used for

- ☞ Supply Chain Management
- ☞ Production Planning and Control
- ☞ Merchandise Planning and Control
- ☞ Critical Path Management

Visual Merchandising

Visual merchandising is the activity of promoting the sale of goods, especially by



their presentation in retail outlets. It helps to

- ❖ Create virtual stores of any grade/size
- ❖ Design fully merchandised shopfloors
- ❖ Create Planograms to communicate with the shopfloor staff
- ❖ Store and space planning
- ❖ Produce Range Books

Point of Sale

Point of sale (POS) or checkout is the location where a transaction occurs. A Retail POS system typically includes a computer, monitor, cash drawer, receipt printer, customer display, barcode scanner, and a debit/ credit card reader.

1. Customer based functions –
2. Sales, Returns, Exchanges, Discounts etc.
3. Inventory Management – Inventory Control, Purchasing, Receiving and Transferring of Products
4. Sales information – Reporting, Sales Trends, Cost/Price/Profit Analysis

Business Intelligence

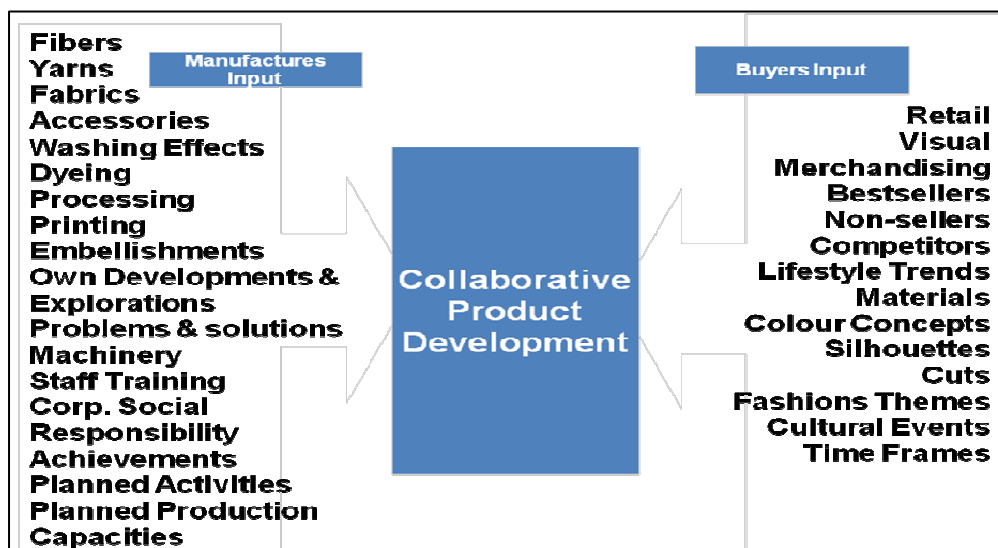
Business intelligence (BI) refers to computer-based techniques used in spotting, digging-out, and analyzing business data, such as sales revenue by products and/or departments, or by associated costs and incomes.

Common functions are:

- ⇒ Reporting
- ⇒ Online analytical processing
- ⇒ Analytics
- ⇒ Business performance management
- ⇒ Benchmarking
- ⇒ Predictive analytics

Product Lifecycle Management (PLM)

A Product Lifecycle Management or PLM is a combination of strategies and solutions related to design, product development and pre-production processes. PLM can help by providing the single central repository of all product-related data, managing a single version of the truth and using it to drive all aspects of the product development process.



Typical Product Development Systems

- ⇒ The product development information is spread across many disparate systems
- ⇒ A combination of various manual processes
- ⇒ Excel Spread sheets
- ⇒ Corel Draw / Adobe Illustrator / Adobe Photoshop etc
- ⇒ CAD Tools
- ⇒ Telephone calls
- ⇒ Fax Sheets
- ⇒ Emails



What is Product Lifecycle Management?

Collaborative Product Development Process

- ♣ Concepts – Sketch – Design - Products (Styles) - Range
- ♣ Developing Body (the Silhouettes / Design)
- ♣ Developing new fabrics (Structures / Designs / Colours)
- ♣ Developing Value additions (Prints / Logos / Embroideries)
- ♣ Manage and co-ordinate this information internally and with suppliers

Storyboard

Storyboard revolutionizes the offline storyboard process and strengthens product development collaboration

- White board area for assets
- Asset clipboard
- Asset repository
- Search/organize features
- High-resolution compression technology for images
- Collaboration and sharing
- Used for creation of mode & trend boards
- Early visual line plans

Designer

- π 2D and 3D Design applications
- π Precise design Sketches
- π Mannequin Customization
- π Style Book
- π True to Scale 2D sketch



Fabric & Trim

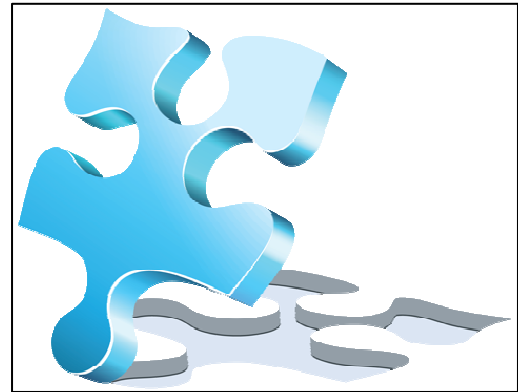
A one-stop checkpoint for material specifications, sample and cost requests, Fabric & Trim facilitates collaboration with textile and trim suppliers on raw material data.

- € Centralized one-stop checkpoint for development
- € Sample request centre
- € Configurable forms
- € Template library
- € Multi-level searching
- € “Where-used” functionality
- € XML import/export

Product Manager

Product Manager is the product development control panel, enabling the creation, review and approval of all elements of a specification.

- ◆ True Web-based product creator
- ◆ Specification data
- ◆ Project management
- ◆ Advanced costing
- ◆ Quotation management
- ◆ Sample management
- ◆ Issues centre
- ◆ Library
- ◆ History and rollback
- ◆ Reporting
- ◆ Configurable forms



Source

Source is a robust, manufacturer data management and supply chain collaboration application.

- √ Selection of suppliers
- √ Communication of order requirements
- √ Evaluation of placement options
- √ Negotiation of costs and terms
- √ Capacity planning / sourcing plans
- √ Vendor management
- √ Placement of orders for production
- √ Ethical trading management
- √ Technical capability management
- √ Factory auditing

Workflow

Workflow provides simple and effective time and action calendars to proactively track progress throughout the product lifecycle

- Automatic and proactive issue reporting and monitoring
- Task scheduling, allocating and tracking

- Critical path tracking
- Automatic alerts
- Self-help knowledge base

Management Reports

Benefits

- ★ Smarter working
 - ↳ More efficient processes
 - ↳ Right Products to Market
 - ↳ Brings Transparency and Responsibility
 - ↳ Spots Bottlenecks
 - ↳ Makes company system dependant
- ★ Reductions
 - ↳ Development costs
 - ↳ Better sourcing
 - ↳ Time to Market
 - ↳ Risk Analysis
- ★ Collaboration
 - ↳ Techpacks created by team
 - ↳ Single Version of truth
 - ↳ Links supply chain
- ★ Library
 - ↳ Data Library
 - ↳ Design Archives
- ★ Reports
 - ↳ Management Reports

Crowd Sourcing

Anyone can submit a design, vote it out, comment it, and then the top ones get to be made so supply meets demand.

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