



B.Com Honours

Semester III

Calicut University

RETAIL BUSINESS MANAGEMENT

Course Code: COM3MN208 • Module 4 Notes

Module IV: Technology and Retail Decisions

Explores modern retail technologies including Automated Data Capture, Electronic Data Interchange (EDI), Barcoding, RFID, E-tailing platforms, and ethical consumer data practices.

Unit 15: Integrated Systems & Networking – Electronic Data Interchange (EDI)

EDI in Supply Chains: Computer-to-computer exchange of standardized business documents (purchase orders, invoices, advance shipping notices) between retailers and suppliers, eliminating manual paperwork and cycle delays.

Unit 16: Bar Coding & RFID Applications in Retail Inventory Tracking

1. **Bar Codes (UPC/EAN):** Optical machine-readable representation of data enabling instant checkout scanning and inventory lookups.
2. **RFID (Radio Frequency Identification):** Uses wireless microchip tags and electromagnetic fields to track multiple inventory items simultaneously without line-of-sight scanning.

Unit 17: Electronic Retailing (E-Tailing) & Omnichannel Retailing

Omnichannel Integration: Seamless consumer experience across physical stores, web portals, mobile apps, and social commerce (Buy Online, Pick Up In Store - BOPIS).

Unit 18: Consumerism, Ethics, & Data Privacy in Retailing

Protecting consumer rights, avoiding deceptive pricing (dark patterns), ensuring ethical sourcing, and complying with data privacy laws (DPDP Act 2023) when capturing shopper behavioral data.

Practical Case Framework (Bar Code vs. RFID Retail Technology Comparison Matrix): Compare technical and operational parameters of Bar Code scanning vs. RFID tags in retail inventory management.

Retail Technology Evaluation Matrix:

Evaluation Parameter	1D/2D Barcode Scanning (UPC/EAN)	RFID Technology (Active/Passive Tags)
Line of Sight Requirement	Mandatory optical line of sight for scanner red laser	No line of sight required (reads through boxes/pallets)
Scan Speed & Read Rate	Single item scanned per second	Bulk scanning of 100+ items simultaneously per second
Tag Cost per Unit	Extremely cheap (negligible printing cost)	Higher cost (Rs. 5 to Rs. 25 per smart tag)
Inventory Accuracy Level	Standard ~ 70% to 80% stock audit accuracy	Near-perfect ~ 98% to 99% real-time stock accuracy
Primary Retail Use Case	POS checkout counters & price label scanning	Automated warehouse intake, anti-theft, & BOPIS tracking

DegreeLive

Acing your exams is just a click away!

Visit www.degreeelive.in to download the next module for free.

DegreeLive