SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107
An Autonomous Institution
Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF MANAGEMENT STUDIES

SUBJECT NAME & CODE : 23BAT347 - REVERSE AND OUTSOURCING LOGISTICS

YEAR/ SEMESTER : II MBA / IV SEMSTER

UNIT 1 : Introduction to Reverse Logistics

Topic : Role of Technology in Reverse Logistics

Role of Technology in Reverse Logistics

RFID in Tracking Returns

1. RFID Tagging for Returns
2. Automated Tracking and Sorting
3. Real-time Location Tracking
4. Improved Inventory Management

Blockchain for Transparency and Security

1. Decentralized Data Storage
2. Enhanced Transparency in Return Process
3. Secure Transaction Tracking
4. Prevention of Fraudulent Returns

AI in Returns Management

1. Predictive Analytics for Return Forecasting
2. Automated Quality Inspection
3. Intelligent Routing of Returned Products
4. Customer Behavior Analysis and Insights

Automation in returns processing and warehouse management.

1.Automated Returns Processing

Barcode/RFID Scanning: Track returned items with scanners (e.g., barcode readers).

Automated Sorting Systems: Sort products based on condition (e.g., conveyor belt systems).

2. Returns Authorization Systems

Online Return Portals: Customers initiate returns through web platforms (e.g., Amazon return process).

Automated Approval Workflows: Automatic verification of return eligibility (e.g., return policies integrated with CRM systems).

3. Integration with Inventory Management Systems

Real-time Stock Updates: Automatically update stock levels after returns (e.g., SAP integration).

Automated Re-stocking: Restock items directly into inventory if resellable (e.g., using barcode scanners for immediate updates).

Automation in returns processing and warehouse management.

4.Automated Inspection and Quality Control

Visual Inspection with AI: Use AI to identify defects in returned items (e.g., AI-powered cameras for damage detection).

Automated Testing Stations: Automatically test electronics and appliances (e.g., automated diagnostic stations for returned laptops).

5. Robotic Process Automation (RPA) for Returns Data

Automated Data Entry: RPA tools for entering return details (e.g., data entry automation for return forms).

Return Reason Analysis: Automate categorization and analysis of return reasons (e.g., using AI to categorize defects).

Automation in returns processing and warehouse management.

6.Automated Return Label Generation

Prepaid Return Labels: Automatically generate return shipping labels for customers (e.g., Shopify return management).

Return Shipping Notifications: Notify customers about return status (e.g., automated email notifications with tracking links).

7. Warehouse Automation for Returned Goods

Automated Guided Vehicles (AGVs): Use robots to transport returned items within the warehouse (e.g., Kiva Systems for Amazon).

Robotic Pick and Pack: Robots pick returned items for restocking or repair (e.g., autonomous picking systems in warehouses).

Automation in returns processing and warehouse management.

8.Automated Refurbishment and Repair Processes

Automated Testing Lines: Automated systems to test and repair returned products (e.g., automated repair lines for smartphones).

Robotic Assembly for Refurbishment: Use robots for disassembly and reassembly of returned goods (e.g., automated smartphone refurbishment).

9. Machine Learning for Predictive Analytics

Return Trend Forecasting: Use machine learning to predict return volumes and trends (e.g., AI predicting seasonal return spikes).

Demand-based Restocking: Automate inventory adjustments based on predicted returns (e.g., AI-based stock management systems).

Automation in returns processing and warehouse management.

10.Automated Reporting and Analytics

Real-time Reporting Dashboards: Use automated systems to generate real-time return performance reports (e.g., Tableau dashboards for returns analysis).

KPI Monitoring: Automatically track KPIs such as return rates and processing times (e.g., using BI tools like Power BI for returns analysis).

RECAP

QUESTIONS???

THANK YOU