

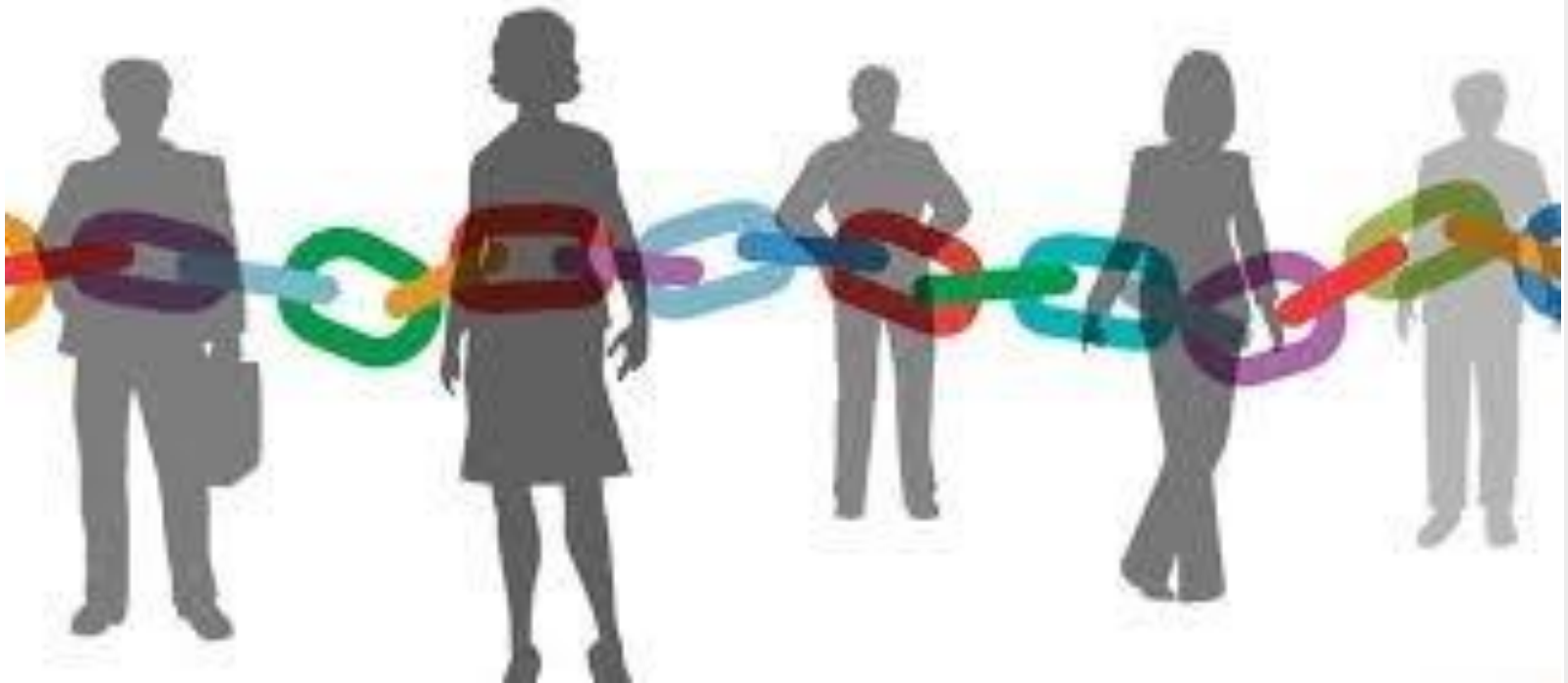


# MK 322 Retail Management

## Chapter 10: Information Systems and Supply Chain Management

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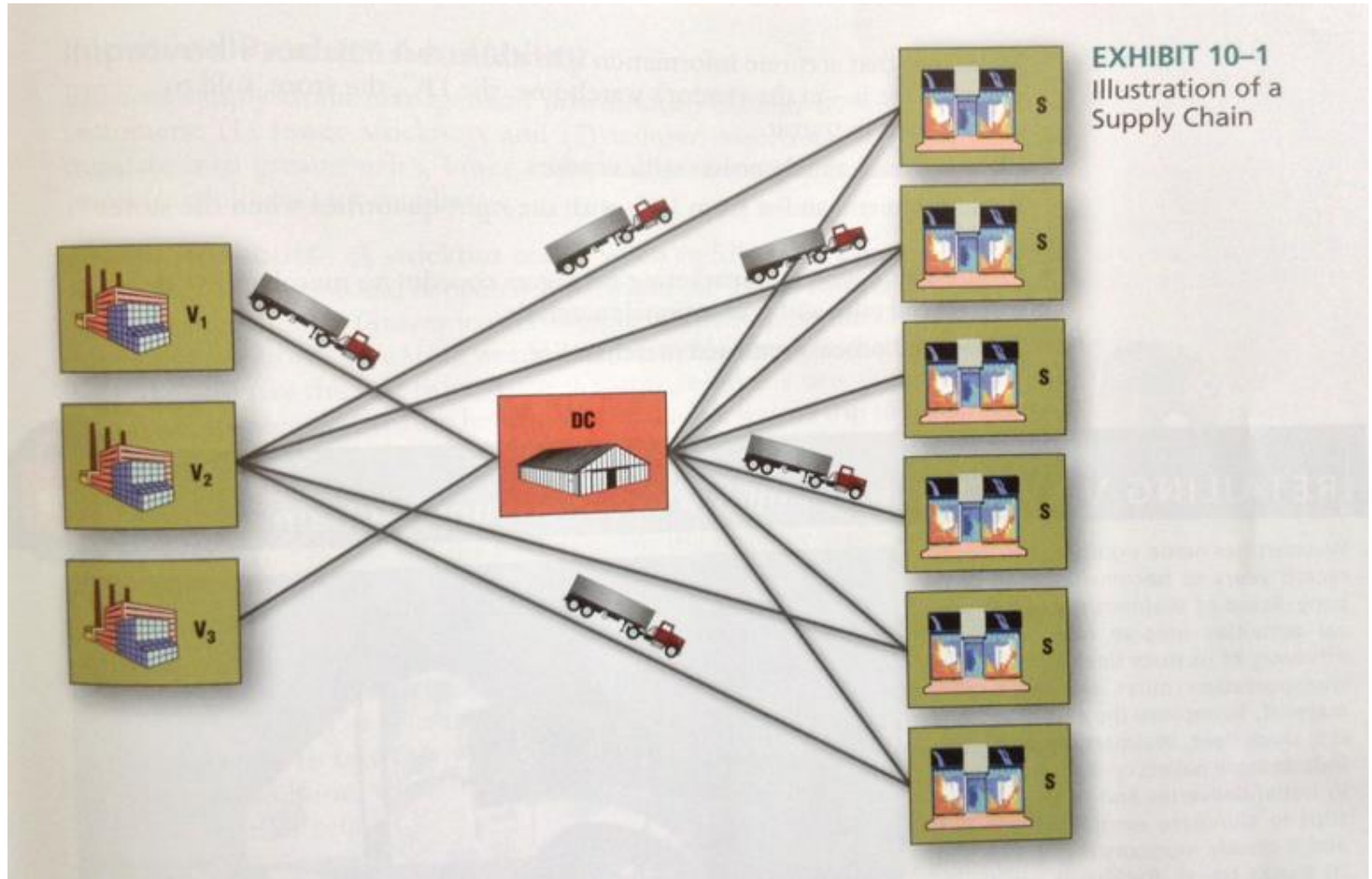
# Creating Strategic Advantage through Supply Management and Information Systems



# Supply Chain Management

- **Supply Chain Management:** is a set of activities and techniques firms employ to efficiently and effectively manage the flow of merchandise from the vendor's to the retailer's customers.
- These activities ensure that the customers are able to purchase merchandise in the desired quantities at a preferred location at the appropriate time.
- **Distribution Center (DC):** A warehouse that receives merchandise from multiple vendors and distributes it to multiple stores

# Supply Chain Management



# Strategic Advantage

- In Chapter 5, strategic advantages are unique and sustainable advantages enabling retailers to realize a higher-than-average return on their assets
- For example Walmart's success is in its information and supply chain management systems



# Strategic Advantage

## **Consider the various activities that retailers keep merchandising in stock**

- Accurately forecast sales and needed inventory levels for each category and SKU
- Monitor sales to detect deviations from the forecast
- Transport the right amount of merchandise from the DCs to each store
- Make sure that accurate information is available that indicates where the merchandise is-in the vendor's warehouse, the DC, the store, sold to customer, or in transit

# Strategic Advantage

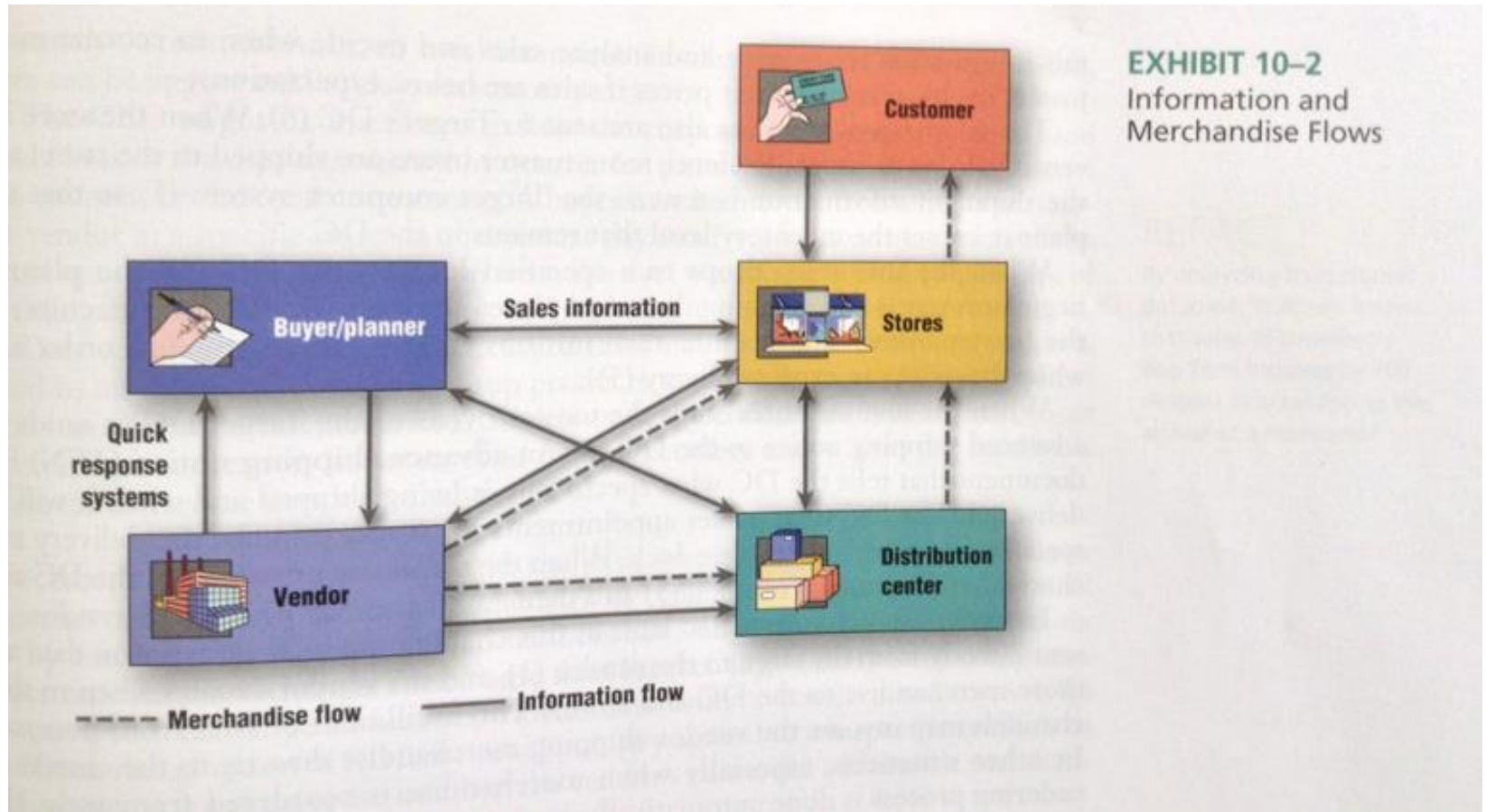
- Place accurate, timely orders with vendors
- Replenish merchandise from DCs with the right quantities when the stores need it
- Ensures that buyers and marketing managers coordinate merchandise delivery with special sales and promotional materials
- Collect and process returned merchandise delivery with special sales and promotional materials
- Collect and process returned merchandise

# The Flow of Information and Merchandise in a Supply Chain

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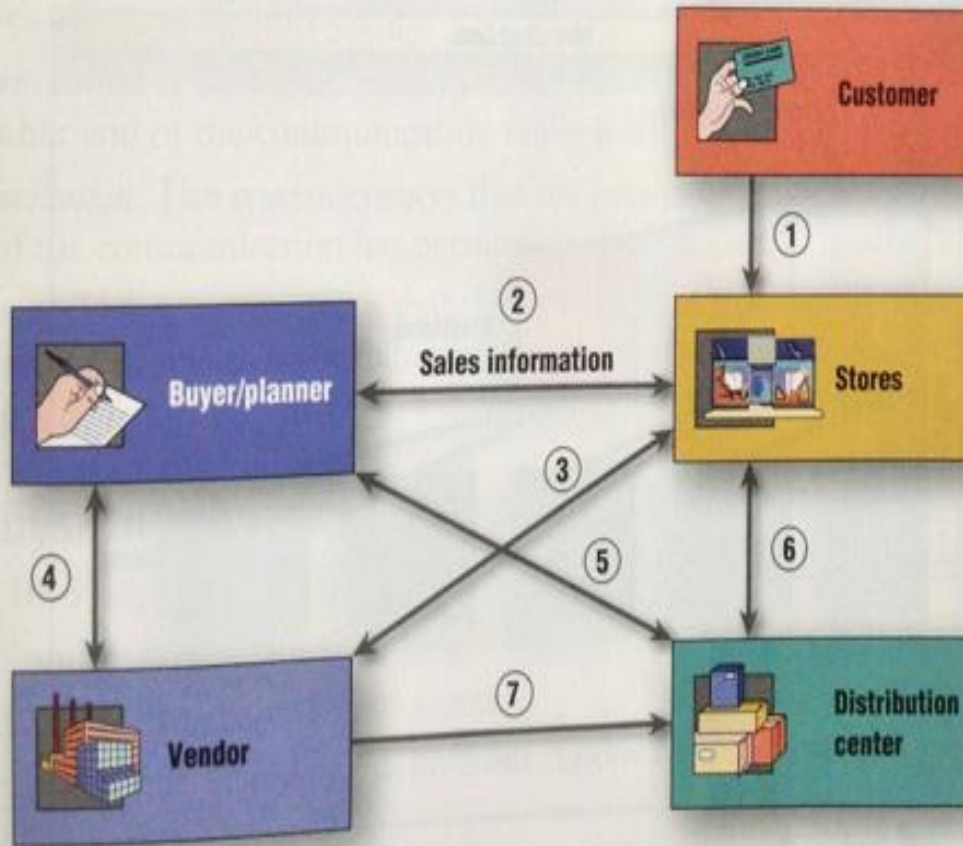


# Information Flows



# Information Flows

EXHIBIT 10-3  
Information Flows



## Information Flows

### Information Flows

When Joe Jackson bought his toaster oven at Target, he initiated the information flows illustrated in Exhibit 10-3 (the numbers in parentheses refer to the path in the exhibit).

The Target cashier scans the **universal product code (UPC)** tag on the toaster oven box (1), and a sales receipt is generated for Joe. The UPC tag is a black-and-white UPC bar code containing a 13-digit code that indicates the manufacturer of the item, a description of the item, information about special packaging, and special promotions. The codes for all products are issued by GS1 US ([gslus.org](http://gslus.org)), formerly the Uniform Code Council. In the future, RFID tags, discussed later in this chapter, may replace UPC tags.

The information about the transaction is captured at the **point-of-sale (POS) terminal** and sent to Target's information system, where it can be accessed by the merchandise planner for the toaster oven product category (2). The planner uses

## Information Flows

this information to monitor and analyze sales and decide when to reorder more toaster ovens or reduce their prices if sales are below expectations.

The sales transaction data also are sent to Target's DC (6). When the store inventory drops to a specified level, more toaster ovens are shipped to the store, and the shipment information is sent to the Target computer system (5) so that the planner knows the inventory level that remains in the DC.

When the inventory drops to a specified level in the DC (4), the planner negotiates terms and shipping dates and places an order with the manufacturer of the toaster ovens. The planner then informs the DC about the new order and when the store can expect delivery (5).

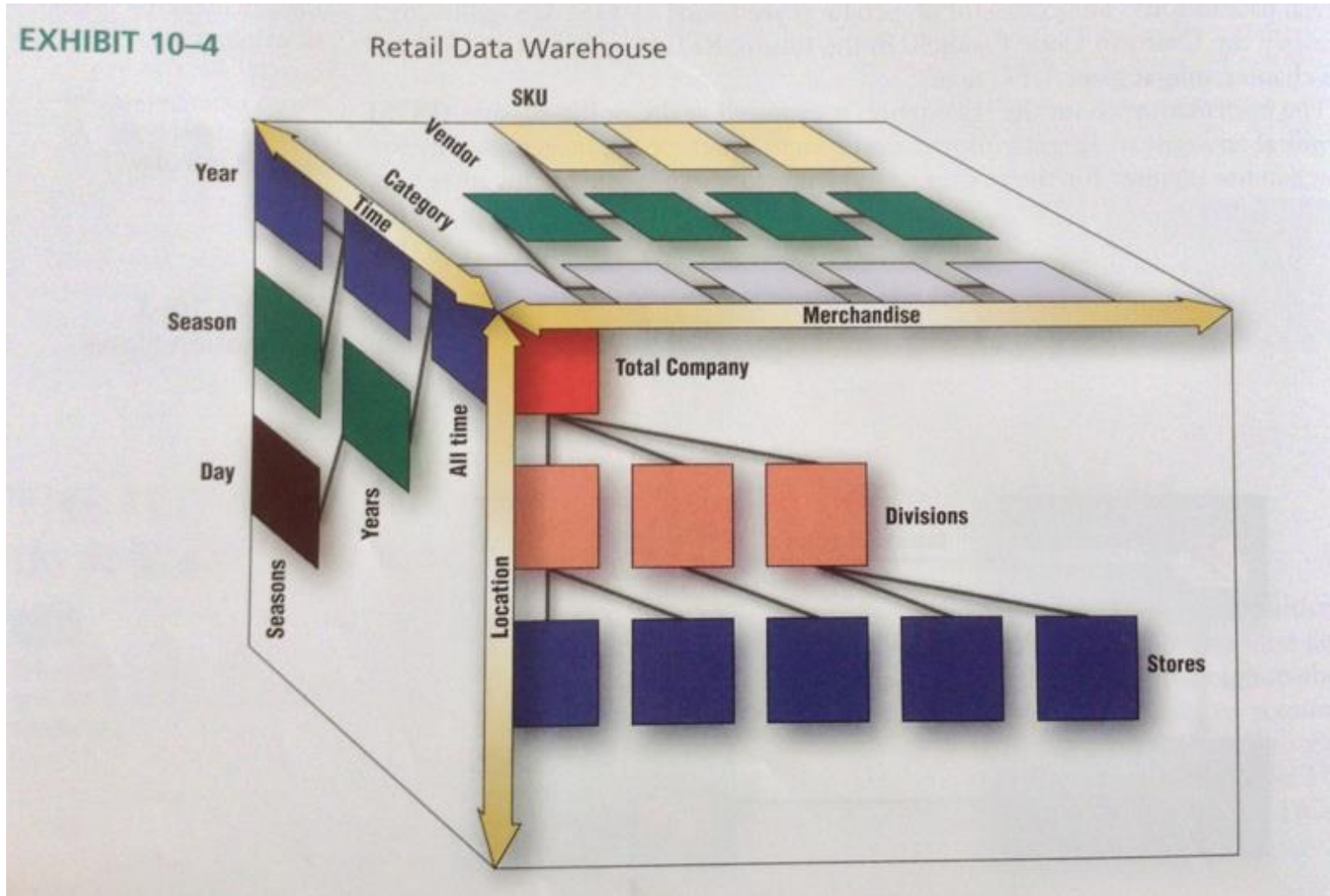
When the manufacturer ships the toaster ovens to the Target DC, it sends an advanced shipping notice to the DC (7). An **advance shipping notice (ASN)** is a document that tells the DC what specifically is being shipped and when it will be delivered. The DC then makes appointments for trucks to make the delivery at a specific time, date, and loading dock. When the shipment is received at the DC and checked, the planner is notified (5) and then authorizes payment to the vendor.

In some situations, discussed later in this chapter, the sales transaction data are sent directly from the store to the vendor (3), and the vendor decides when to ship more merchandise to the DC and stores. The fulfillment of sales from nonstore channels may involve the vendor shipping merchandise directly to the customer. In other situations, especially when merchandise is reordered frequently, the ordering process is done automatically, bypassing the planners.

# Data Warehouse

- Purchase data collected at the point of sale goes into the database known as a data warehouse
- The information stored in the data warehouse is accessible on various dimensions and levels

# Data Warehouse



# Electronic Data Interchange(EDI)

- EDI is the computer-to-computer exchange of business documents using a standardized format
- Retailers have developed standards for exchanging information about purchase order changes, order status, transportation routings, advance shipping notices, on-hand inventory status, and vendor promotions as well as information that enables vendors to put price tags on merchandise

# The Physical Flow of Merchandise- Logistics

- Logistics is the aspect of supply chain management that refers to "the planning, implementation, the control of the efficient flow and storage of goods, services, and related information from the point of origin to the point of consumption to meet customers' needs

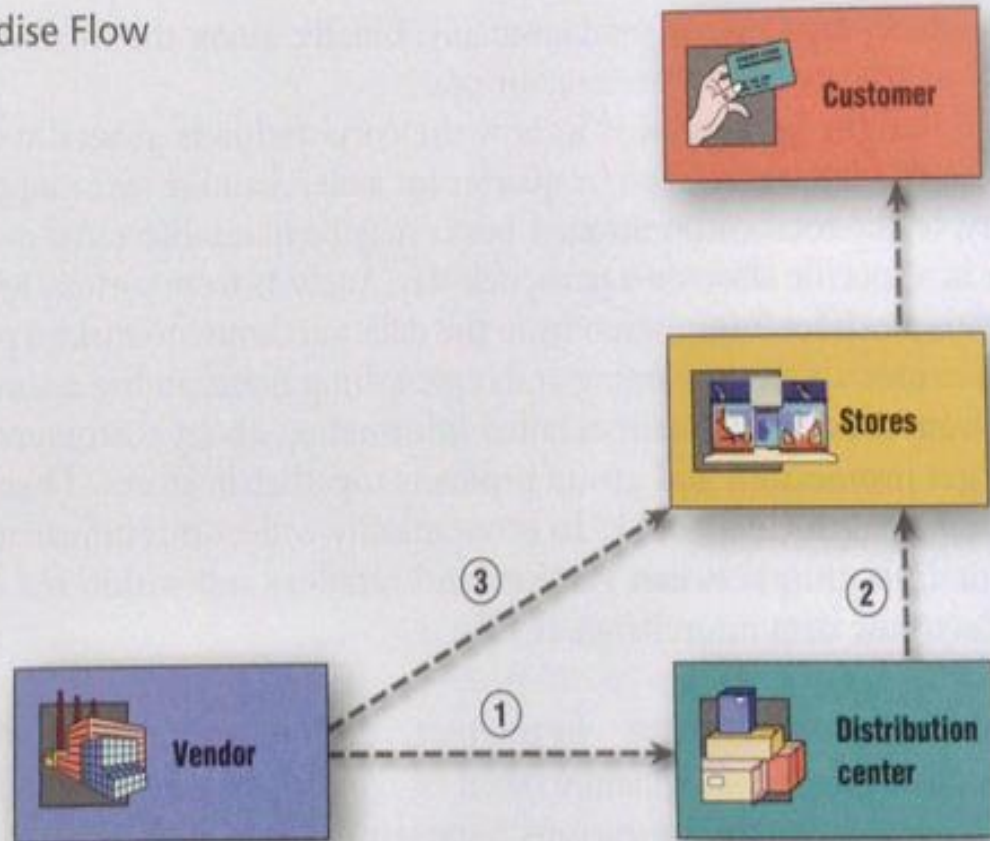
# The Physical Flow of Merchandise- Logistics

- Exhibit 10-5 illustrates the physical flow of merchandise within the supply chain
  1. Merchandise flows from vendor to DC
  2. Merchandise goes from DC to stores
  3. Alternatively, merchandise can go from vendor directly to stores or even customer

# The Physical Flow of Merchandise-Logistics

EXHIBIT 10-5

Merchandise Flow



# The Distribution Center – Main Roles

- Management of Inbound Transportation
  - Dispatcher is a person who coordinates deliveries to the DC
- Receiving and Checking
- Storing and Cross-Docking
  - The WiiU cartons are unloaded from the inbound truck going to specific stores

# Cross-docking



No hands are needed to cross-dock merchandise. The automated conveyor systems move merchandise from the unloading area for a vendor's inbound truck to the loading area for a retailer's outbound truck going to its store.

# The Distribution Center – Main Roles

- Getting Merchandise Floor – Ready
  - Floor-ready merchandise is merchandise ready to be placed on the selling floor in the store
  - Ticketing and marking refer to affixing price and identification labels to the merchandise
- Preparing to Ship Merchandise to a Store
- Management of Outbound Transportation

# Ticketing and Marking



**Ticketing and marking are often done in the DC so that the merchandise is floor-ready—that is, ready to put on the sales floor when the carton is opened at the store.**

# Prepare Shipment to Store



When it is not economical to send a carton of a single item to a store, the multiple items are picked from the shelves and put into a carton for shipment to the store.

# Direct Delivery

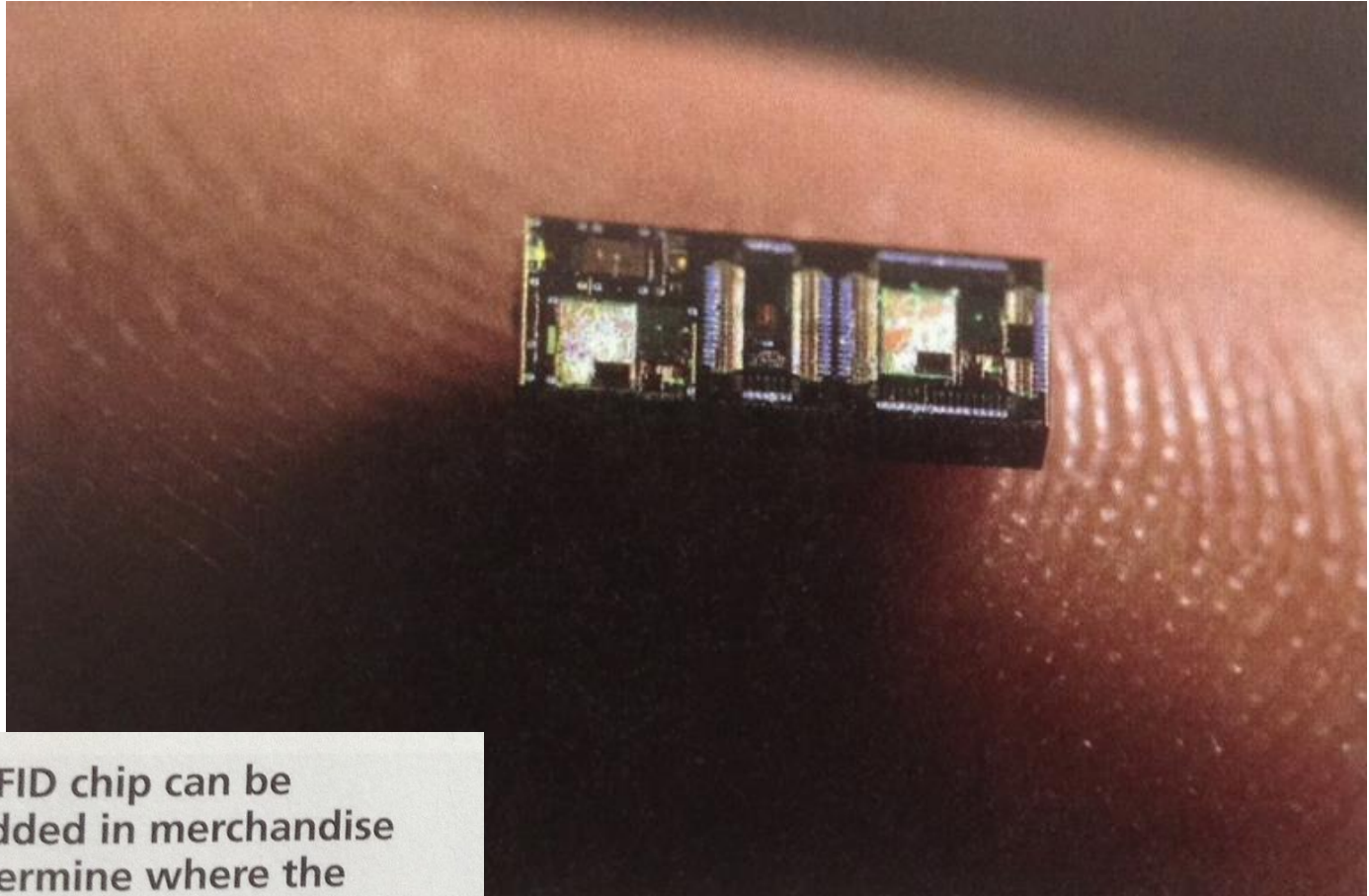


Dolly Madison's baked goods are delivered directly to the retailer's store, bypassing the DC, ensuring that customers can get the freshest merchandise.

# Radio Frequency Identification (RFID)

- RFID is a technology that allows an object or person to be identified at a distance by means of radio waves
- RFID devices are tags that transmit identifying information and are attached to individual items, shipping cartons, and containers
- The primary benefit of tagging items to retailers is economically provide accurate, real-time measure of item inventory levels
- With these data, retailers can dramatically reduce inventory levels and stockouts

# Radio Frequency Identification (RFID)



This RFID chip can be embedded in merchandise to determine where the merchandise is in the supply chain.



**That's All Folks**