

Retail  
Domain Academy

# Point of Sale System

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# Courseware

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# Introduction

- **Point of Sale (POS)**
  - Location where a 'transaction' occurs.
- **POS System**
  - A system used for managing the sales of retail goods
  - Used at checkouts or customer service points
  - Used by sales clerks or customers themselves
  - Refers to the electronic hardware and software and all bundled features associated with the check out stands



# Evolution of POS

## ■ Evolution of POS

- The first generation of POS systems were the Electronic Cash Registers which were used to ring in items and to generate receipts.
- Over the years, several features have been added to the POS system that helps the business to analyse its sales and item turnover, and even to forecast demand.
- The future of POS would be more customer-oriented with biometrics, mobility, RFID, self-scan and self-checkout becoming more popular, thereby enhancing and easing customers' shopping experience.



# Features of a modern POS system

- **Fast and easy checkouts**
  - Whether one is ringing up sales or processing orders, a few clicks of the mouse should quickly move the retailer's customers through the line.
- **Up-to-the-minute inventory picture**
  - The retail software should improve a retailer's inventory management by minimizing their inventory investment and out-of-stock conditions. With the right retail software, a retailer will always **know what's on-hand, on-order, and in-transit.**
- **Customer retention**
  - The software should track customer information and include a built-in loyalty program. When you know who your customers are and what they're buying, you can keep them coming back for more.
- **Automated purchasing**
  - The retail software should not only suggest reorder quantities, it should also allow the retailer to easily place purchase orders with their vendors.

# Features of a modern POS system

- **Integrated ecommerce**
  - The retail software package should be able to expand a retailer's business to the web with minimum effort and expense.
- **PCI compliancy**
  - It should protect customers' credit card information as well as the business. If a retailer is using retail software that's not compliant with PCI DSS standards, they may be subject to hefty fines.
- **Reports library**
  - A good retail software should include an extensive library of built-in reports that one can customize to meet one's needs.

# Components of a POS system



# Components of a POS system

## ■ Back Office Server/Controllers

- The main computer where pertinent company information, such as bar codes, prices and sales reports, are programmed and stored.
- Powerful and flexible platform to run the retail software and other business applications.
- Main information source for the network if multiple units are in use throughout the establishment.
- Can run as Site Controllers and POS workstations.



## ■ Monitor

- The monitor is the screen where sales staff views sales information as a transaction is in progress.
- As items are added, staff can view the list of accumulated items, price, tax, savings, subtotals, totals and any other applicable information pertaining to the type of business being conducted.
- The monitor operates in conjunction with the back office server and other components such as a mouse, cash drawer, printer and sometimes a keyboard (unless a touch-screen monitor is installed that allows for keyless entries).





# Components of a POS system

## ■ Bar-Code Scanner

- Bar code scanners retrieve coded pricing information using a laser beam for various items.
- It allows for high-speed, accurate input of inventory items
- Some bar code scanners are hand-held, enabling salespeople to scan items that are too large or heavy to be lifted to a counter.
- Reduce errors during checkout
- Hands-free barcode scanning maximizes efficiency
- Read different types of barcodes, such as UPC, Code 39, Zip+4 Postnet, EAN/JAN-13, etc.
- Scan all types of barcoded information, including order numbers, employee ID cards, or customer loyalty cards



# Components of a POS system

## ■ Cash Drawer

- POS systems at retail stores will most often have an electronic cash drawer.
- Like a typical cash drawer, it is used to hold money collected for goods or services.
- These components are also controlled by the back office server and are programmed to open after designated tasks or digital commands.



## ■ Check Readers (MICRs)

- Magnetic Ink Character Recognition (MICR) devices scan the magnetically encoded routing numbers, bank accounts, and check numbers that appear along the bottom of standard personal or business checks. MICR readers can be standalone devices or combined with a receipt printer or an MSR
- Standalone MICRs are either serial devices or "keyboard wedge" devices, which means they are connected through your keyboard



# Components of a POS system

## ■ Keyboards

- The keyboard is used to enter items, services, pricing information, updates and all other information essential to running the business.
- Point of sale systems that function without touch screens or bar-code scanners may require a keyboard as well.
- Even when touch-screen monitors are used at work-station terminals, keyboards may still be useful in entering any notes, details or modifications to the purchased goods or services.



## ■ Pole Display

- Pole displays allow customers to view information while checking out.
- Pole displays commonly display change due, sale amounts, item descriptions, and prices.
- Increase ticket accuracy and maximize customer satisfaction.



# Components of a POS system

## ■ Handheld Data Collection Devices

- Handheld PDTs (Portable Data Terminals) are portable barcode scanners used to gather item information which can be imported into your retail software. They increase speed and efficiency during physical count.
- Quickly count merchandise during receivings and store-to-store transfers.



## ■ Weight Scales

- They obtain weights from a serial scale and transmit them to your point of sale software.
- Optionally subtract the weight of the container—known as the tare weight—from the total weight of the item



# Components of a POS system

## ■ **MSRs**

- Magnetic stripe readers (MSR) are used to capture credit or debit card information to process sales.
- An MSR component can be attached to the work station terminal to enable a customer to swipe a credit card at the time of payment.



## ■ **PIN Pads**

- In instances when debit cards require personal identification numbers (PINs), a portable PIN pad may be incorporated into the POS system to allow the customer to privately enter her PIN.
- PIN pads must meet the DUKPT (Derived Unique Key Per Transaction) encryption standards.



## ■ **Signature Capture Devices**

- Used to electronically capture the customer's signature
- Useful for processing credit cards, A/R charge pay transactions that require signature verification



# Components of a POS system

## ■ Label Printers

- Print labels for items, customers, and vendors, along with shipping labels, file folder labels, or many other types of labels. Print butterfly labels, split labels, and hang tags
- Thermal label printers use heat-sensitive label stock to produce durable, fade-resistant labels



## ■ Receipt Printers

- Print customer receipts with a compact receipt printer, or choose a standard printer for full-size invoices, purchase orders, reports, and other documents.
- Some receipt printer can print multiple colors and allows you to print your logo and website on the receipt
- Kiosk and wireless printing solutions are also available these days.



# Components of a POS system

## ■ Software

- Though the hardware associated with a point of sale system most readily catches a customer's attention, the software that drives the system typically enables much of the machine's functionality.
- Software allows the POS system to accept input, like barcodes from products or credit card data, process transactions, charge customer cards, keep track of cash on hand, manage inventory, print receipts and apply any programmed discounts.
- Because software drives so much of the POS system's functionality, the POS software is considered the most important component of any point of sale configuration.



# Different Tender types in POS

- Cash
- Cheque
- Credit cards
- Debit cards
- Discount Cards
- Shopping cards
- Traveller's cheques
- Store Credits
- Money Orders
- FSA (Flexible Spending Accounts)
- EBT (Electronic Benefit Card)
- WIC (Women Infant Children)
- Foreign Currency
- Non-store Coupons
- Mall Certificate
- Gift Certificate



# Different Types of POS

- **Electronic Register POS**

- The electronic register POS is very similar to the mechanical register POS. The difference is this POS system has the ability to print out hourly, daily, monthly and yearly sales reports.

- **Software-Based POS**

- Software-based POS systems run on specialized software that allows the merchants to develop various types of sales reports based on various factors like employee, product, etc. The merchant must have the necessary compatible hardware to go with the software.

- **Web-Based POS**

- Web-based POS systems take the software-based POS system to the next level. The merchant must have an Internet connection. This monthly fee-based POS system usually comes with unlimited technical support and regular upgrades.

- **Wireless POS**

- Wireless POS systems are Web-based POS systems that allow the merchant to be have a mobile presence. These POS systems are used by street and conference vendors.

# Benefits of a POS System

- **Accuracy**

- Scanning is more accurate than punching in numbers from a sticker, or expecting the cashier to remember what each item costs.

- **Analysis**

- POS systems let you manage inventory, flag items for reorder, track promotions and analyze sales patterns and generate a host of standard and customized reports which would help in making informed purchase decisions and thus save money.

- **Customer Satisfaction**

- A good POS system will allow the employees to spend more time on the floor helping customers and less time behind the counter.
- Your frequent shoppers will appreciate the loyalty programs, rechargeable gift cards, and A/R charge accounts built into the retail software.
- When you know who your customers are and what they're buying, you can create meaningful marketing campaigns that target the right customers with the right incentives.
- An efficient POS system would also ensure that the checkout lanes move faster, by leveraging the latest technologies to speed up the purchase, payment and packing process.

# Self-Checkout System (SCO)

- **Self-checkout** machines provide a mechanism for customers to pay for purchases from a retailer without direct input to the process by the retailer's staff. They are an alternative to the traditional cashier-staffed checkout.
- The customer is permitted to scan the barcodes on their own items, and manually identify items such as fruits and vegetables (usually with a touch screen display), which are then weighed where applicable, and place the items into a bagging area.
- **Advantages**
  - Lesser Checkout time
  - Lesser staff to man checkout counters



# Future of POS

- **Portable barcode scanner** is the next big step in the self-checkout arena. It is already being implemented in retailers like Carrefour and Ahold.
- Perched on the handle of the shopping cart, it scans grocery items as the customer adds them to the cart.
- **Scan-as-you-go mobile devices** are a logical next step after the self-checkout lanes that are now common in big food and drug chain stores. When finished selecting items, Scan It shoppers either go to a self-checkout station to upload their bill and pay, or hand the device over to a cashier.



# Future of POS

- More retailers are likely to adopt the type of mobile checkout stations pioneered at Apple stores, which use **portable tablets equipped with credit-card readers**.
- And as more customers load their smartphones with debit, credit and loyalty card information, more stores will adopt streamlined checkout technology
- Retail experts predict that before long most of these mobile shopping gadgets will be supplanted by customers' own smartphones.
- Ahold is testing a way for customers to download Scan It software directly into their own iPhones and is exploring ways for customers to use smartphones to pay. Starbucks is already taking steps toward a digital-wallet model.
- Retail experts predict the new retail gizmos could eventually bring about the end of traditional cash registers and open a whole new world of personalized shopping experience.

