

Digital Business

Topic : Digital Transformation in Businesses & Services
– RETAIL TECH

Learning Objectives

- ▶ What is retailing ?
- ▶ Retail industry segmentation and activities
- ▶ Retail transformation focus areas
- ▶ Online retail transformation
- ▶ Offline retail transformation
- ▶ Online + Offline retail transformation

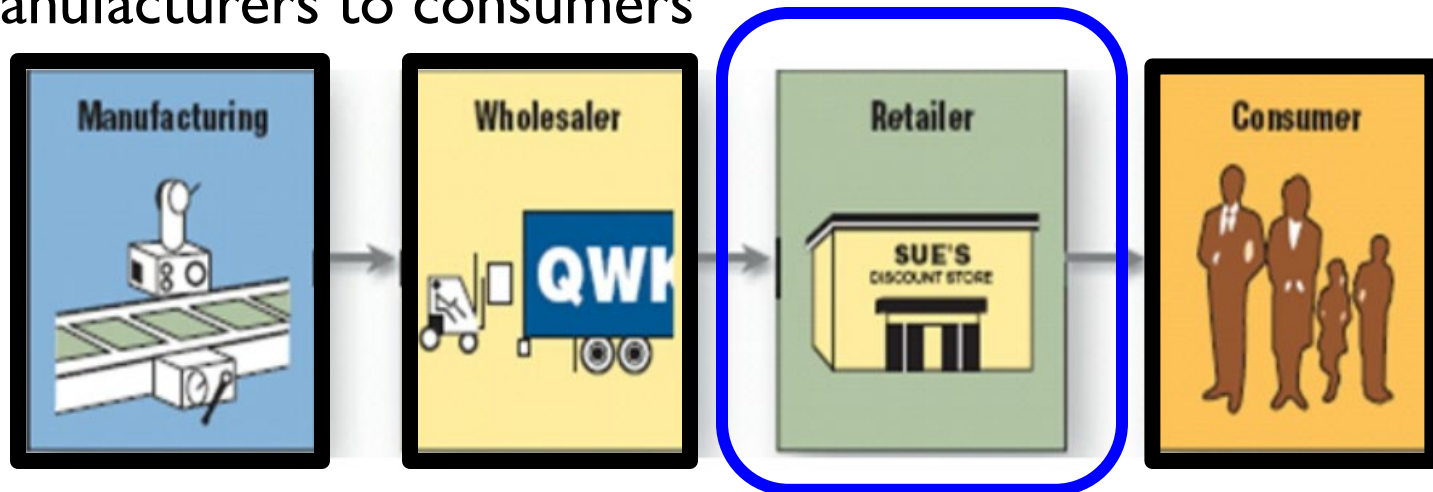
Is Retail Dying?



Source: <https://www.youtube.com/watch?v=ATn5bHC-eos&feature=youtu.be>

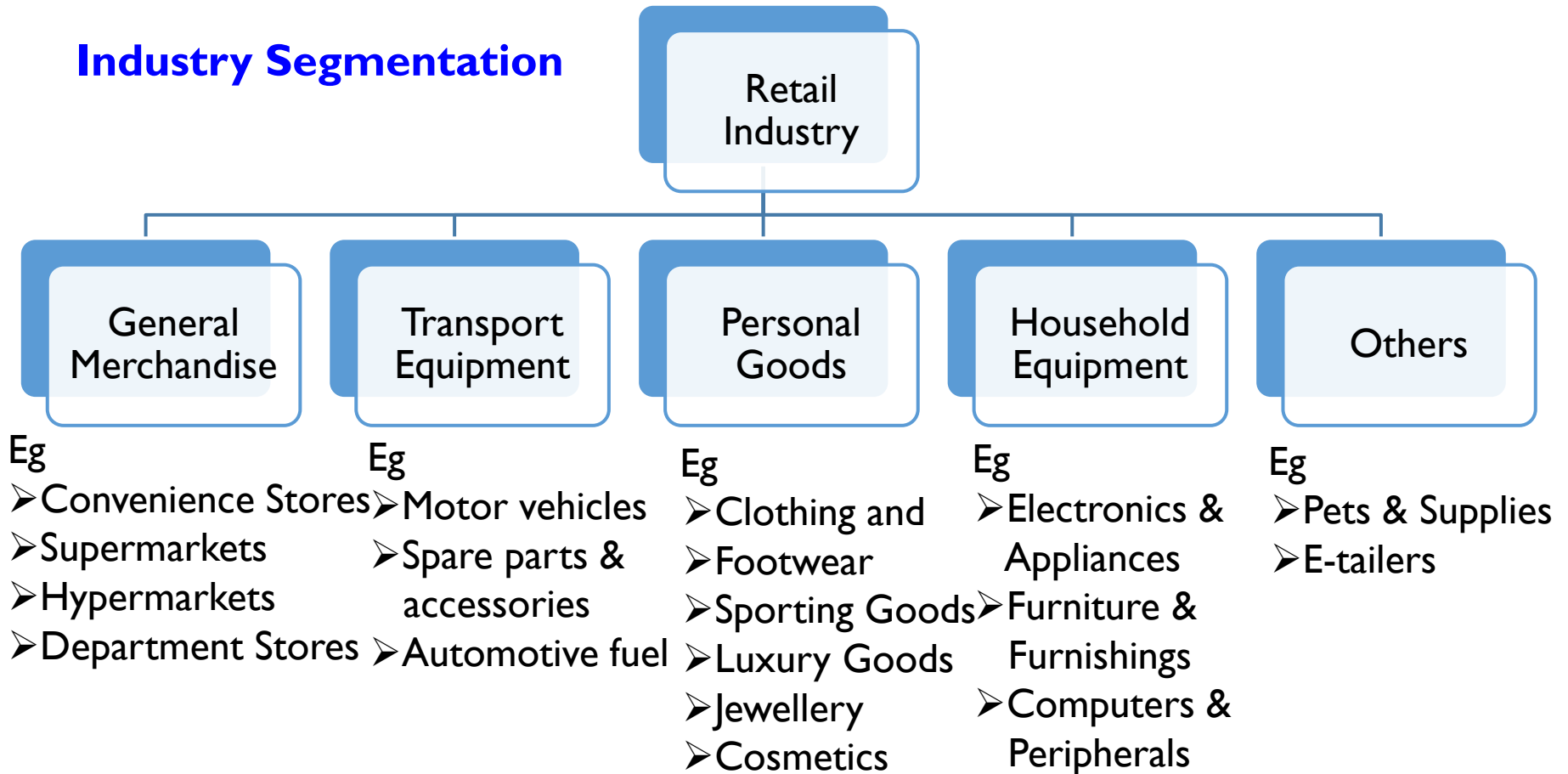
Intro to Retail Services

- ▶ **Retailing** is a set of business activities that **adds value to the products and services sold to the consumers for their personal/household consumption**
- ▶ A retailer is a business that sells products and/or services to consumers for personal/household consumption.
- ▶ A retailer is the final business within a supply chain which links manufacturers to consumers



Intro to Retail Services

Industry Segmentation



Singapore is home to over 20,600 retail establishments

Intro to Retail Services

Industry Activities

- Supply Chain/ Procurement
- Brand Management
- Marketing
- Store Management (Offline & Online)
- Customer Service
- Consumer Insights

Retail Transformation Focus Areas

Online

- E-Commerce
- Better Online Customer Experience
- Digital Selling

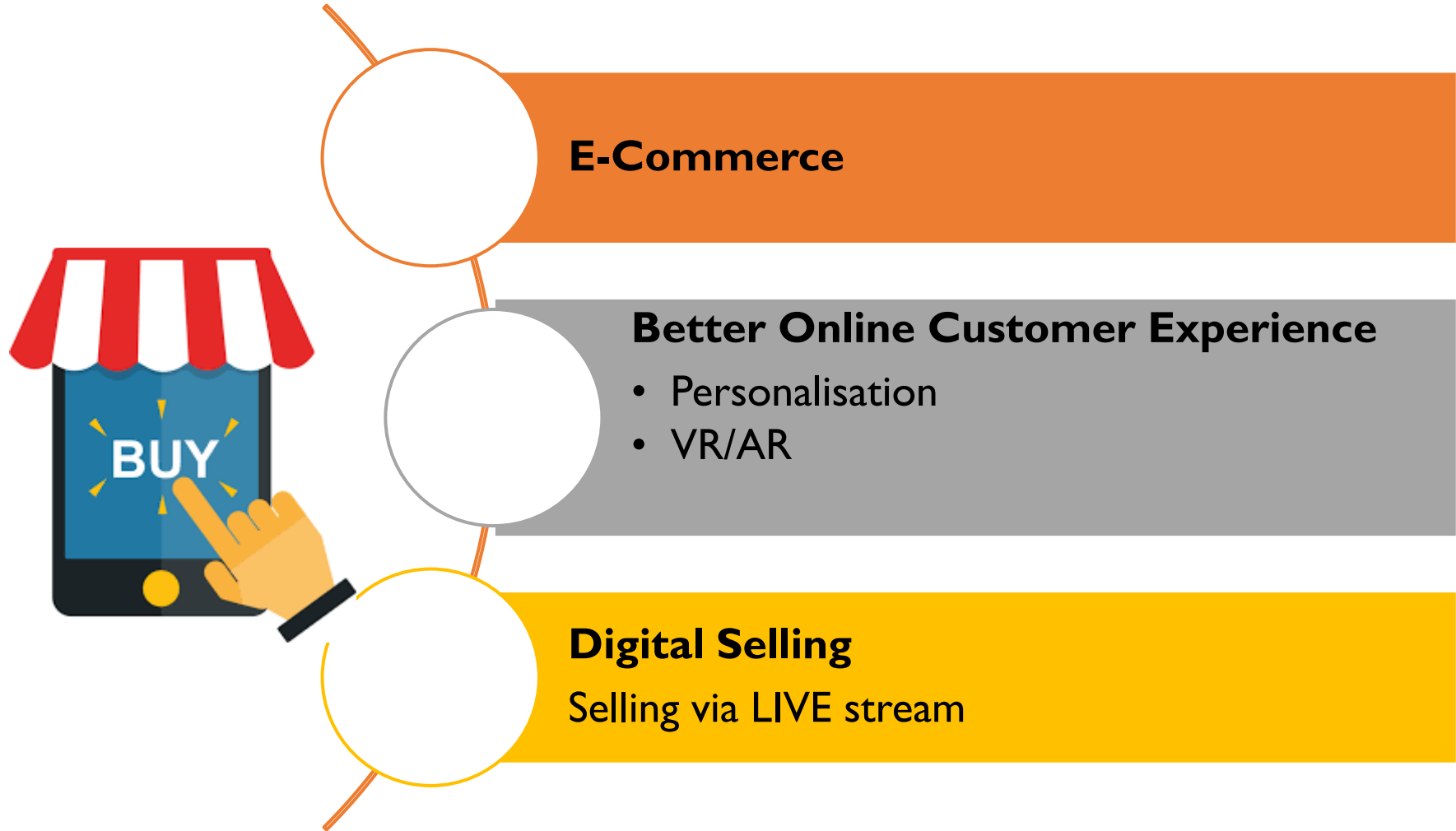
Offline

- Better Offline Customer Experience
- Store/Warehouse Operations

Online + Offline

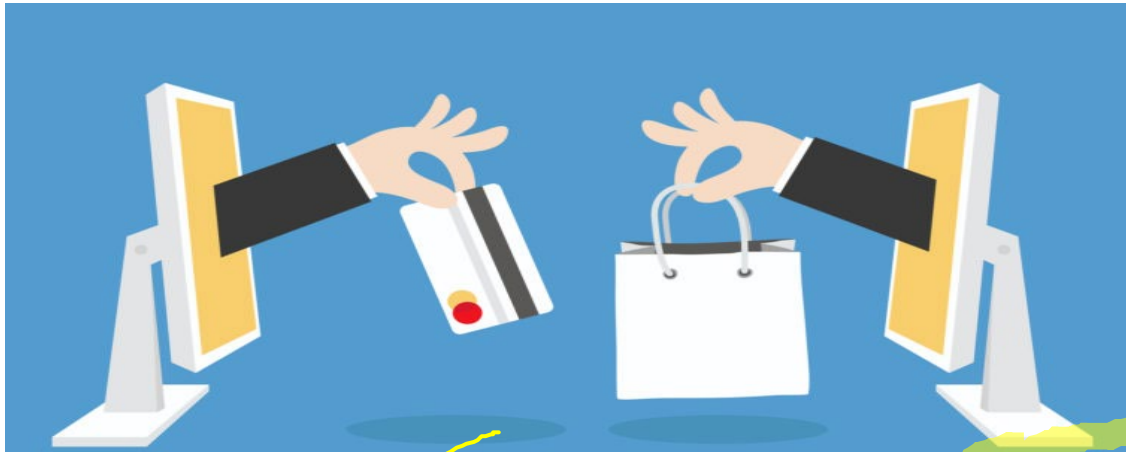
- Optimised User Journey
- Omnichannel Shopping Experience

Online Retail Transformation



E-Commerce

- ▶ **E-commerce** is the activity of buying or selling of products on online services or over the Internet.

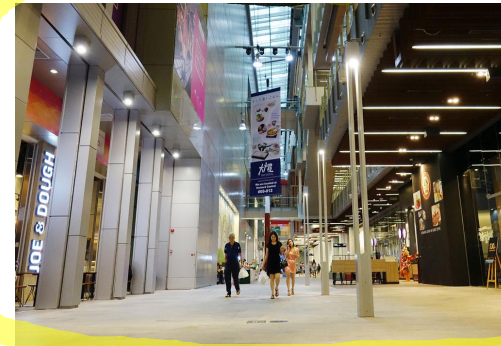


Ecommerce
in Singapore

then



now



Read More: <https://www.todayonline.com/singapore/big-read-after-decades-top-orchard-road-faces-time-reckoning>

The Map of E-commerce in Singapore

The Map of E-Commerce ranks Singapore's top 50 e-commerce players based on their average quarterly traffic, mobile application ranking, social media followers and number of staff. Data was collected in January 2018



Singapore's e-commerce sales predicted to reach S\$10b in 2020.

Filter by Business Model Store Type Store Origin Select Data Per Quarter Q1-2018

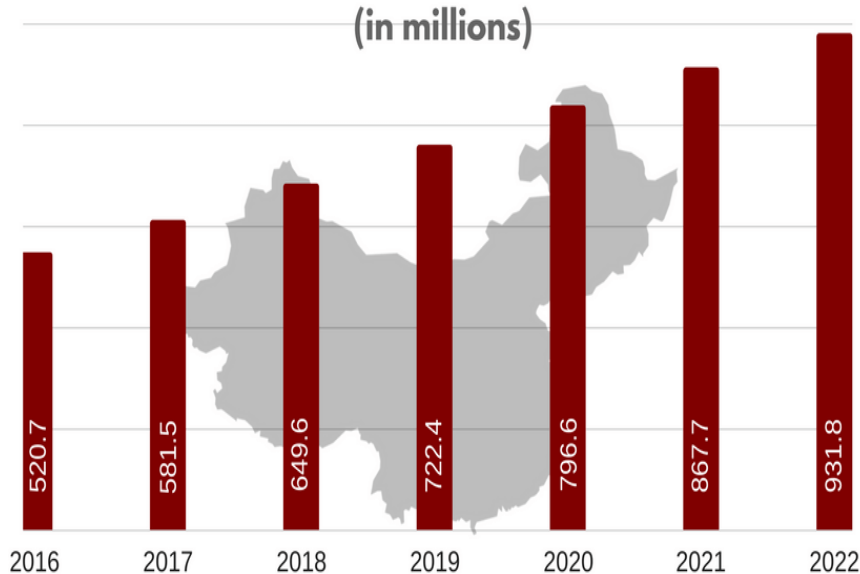
☒ Verified by Merchant | ☐ IEMA Award Winners

Merchant	Monthly Visits	AppStore Rank	PlayStore Rank	Twitter	Instagram	Facebook	Number of Employees
1 Qoo10 Qoo10	13,474,400	#3	#3	3,700	4,900	381,900	145
2 Lazada	10,006,600	#1	#1	1,800	11,300	22,647,300	580
3 ebay eBay	2,149,600	#7	#7	100	71	21,800	80
4 EZBuy	1,826,400	#4	#4	1,200	24,800	258,900	53
5 Zalora	1,558,800	#5	#5	7,000	51,500	7,187,900	394

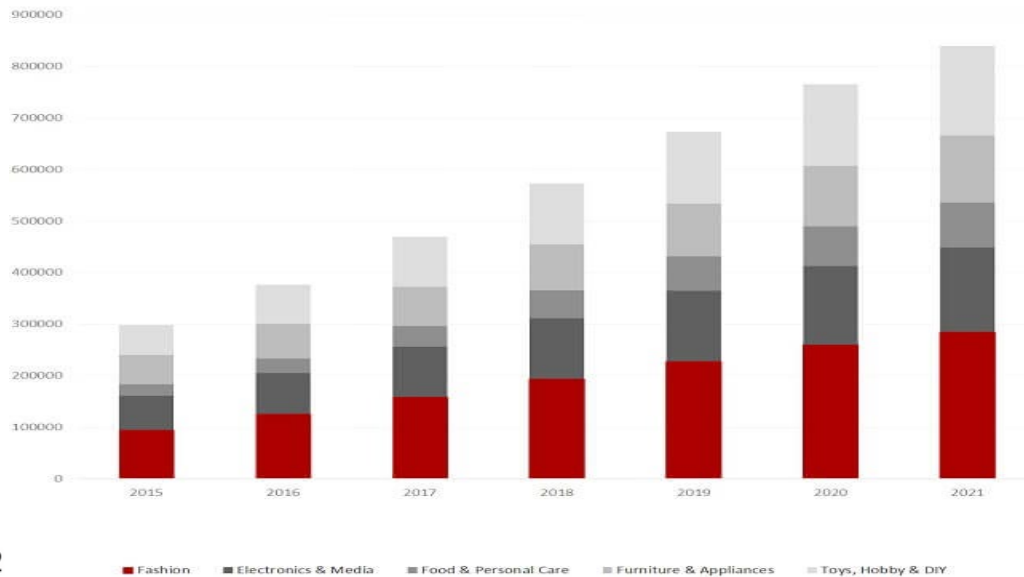
More on e-commerce in Singapore: <https://www.eshopworld.com/blog/singapore-ecommerce-insights/>

E-Commerce in China

NUMBER OF ONLINE SHOPPERS IN CHINA
(in millions)



Projected eCommerce Revenue Per Year by Market Segment - China
(in Million USD)



Projected: 931.8 million of online shoppers by 2020
Estimated: Revenue per year 800,000 million USD by 2021

More on e-commerce in China: <https://www.eshopworld.com/blog/china-e-commerce-insights-2018/>

E-Commerce in China



Source: <https://www.youtube.com/watch?v=flA7FwrB6fg>

Personalisation

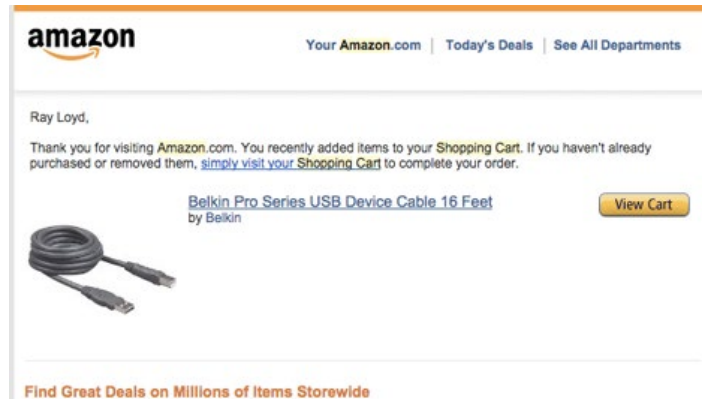
- ▶ Offerings and experiences are **tailored and personalized** according to customers' behaviour and preferences
- ▶ Most retailers are currently **using data analytics to gain actionable insights about their customers' behaviour and preferences**

Example: Personalised Recommendations

We Have Recommendations for You

Sign in to see personalized recommendations

You don't have any recently viewed items.
View items on Amazon and we'll track them here.



amazon

Your Amazon.com | Today's Deals | See All Departments

Ray Loyd,

Thank you for visiting Amazon.com. You recently added items to your **Shopping Cart**. If you haven't already purchased or removed them, [simply visit your Shopping Cart](#) to complete your order.

Belkin Pro Series USB Device Cable 16 Feet
by Belkin

[View Cart](#)

Find Great Deals on Millions of Items Storewide



amazon.co.uk

Hello Tom Bowden. We have [recommendations](#) for you. (Not Tom?)

Tom's Amazon.co.uk | Today's Deals | Gift Cards | Gifts & Wish Lists

Shop All Departments | Search All Departments | [Basket](#) | [Wish](#)

Your Amazon.co.uk | Page You Made | Recommended For You | Amazon Betterizer | Improve Your Recommendations | Your Profile | [Log out](#)

Tom, Welcome to Your Amazon.co.uk (If you're not Tom Bowden, [click here.](#))

Today's Recommendations For You

Here's a daily sample of items recommended for you. Click here to [see all recommendations](#).

Page 3 of 44 (see all)



The Coen Brothers Coll... DVD ~
Coen Brothers Bo...
★★★★☆ (7) £9.99
[Fix this recommendation](#)



The Elephant Man - Specia...
DVD ~ The Elephant Man
★★★★☆ (43) £5.49
[Fix this recommendation](#)



City of God [DVD]
£4.99
[Fix this recommendation](#)



Videodrome [DVD] [1982] DVD ~
James Woods
★★★★☆ (15) £5.99
[Fix this recommendation](#)

Customers Who Bought This Item Also Bought





Middlemarch (Penguin Classics)
George Eliot
★★★★☆ 504
Paperback
\$8.70 [Prime](#)



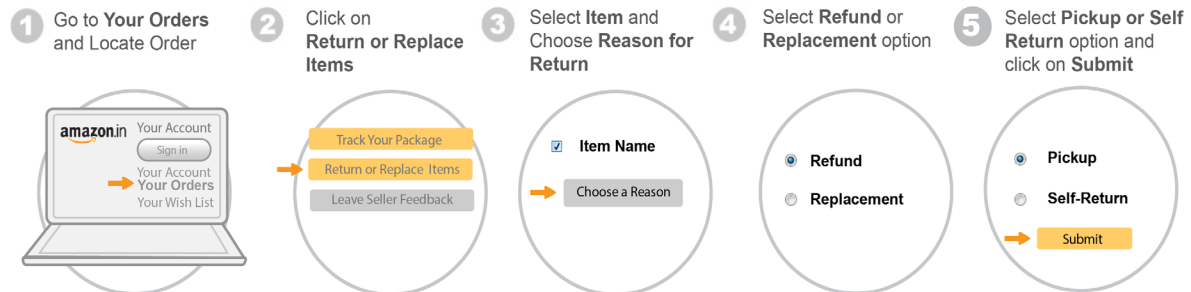
The Picture of Dorian Gray (Dover Thrift...)
Oscar Wilde
★★★★☆ 879
Paperback
\$3.60 [Prime](#)



Middlemarch (Wordsworth Classics)
George Eliot
★★★★☆ 504
Paperback
\$3.95 [Prime](#)



Jane Eyre
Charlotte Bronte
★★★★☆ 3,814
Paperback
\$9.89 [Prime](#)



Order within **3hr 23min** to get it:
Tuesday, April 14
(Free Two Day Shipping)

IT1

AR/VR

- ▶ **Augmented Reality (AR) & Virtual Reality (VR)**
helps buyers to choose products by creating an environment where buying can be made more realistic

Example : AR Shopping Experience



Source: <https://www.youtube.com/watch?v=5TZmQPdhpak>

Example: VR Shopping Experience



Source: <https://youtu.be/-HcKRBKlilg>

Digital Selling

▶ **Selling via Live stream**

Live stream shopping is live wherein the hosts act as their own models or demonstrators, showing off all the features and functions of the products they're selling

It is highly interactive wherein users who tune in to the shopping sessions can ask questions directly to the host and the host can address these questions during the live broadcast

Hosts can be a mix of celebrities, models, micro influencers and major companies that want to promote their products (or someone else's products)

Shoppers drawn to real-time live auctions bidding for items at bargain prices via Facebook streaming service

Selling via Live Stream



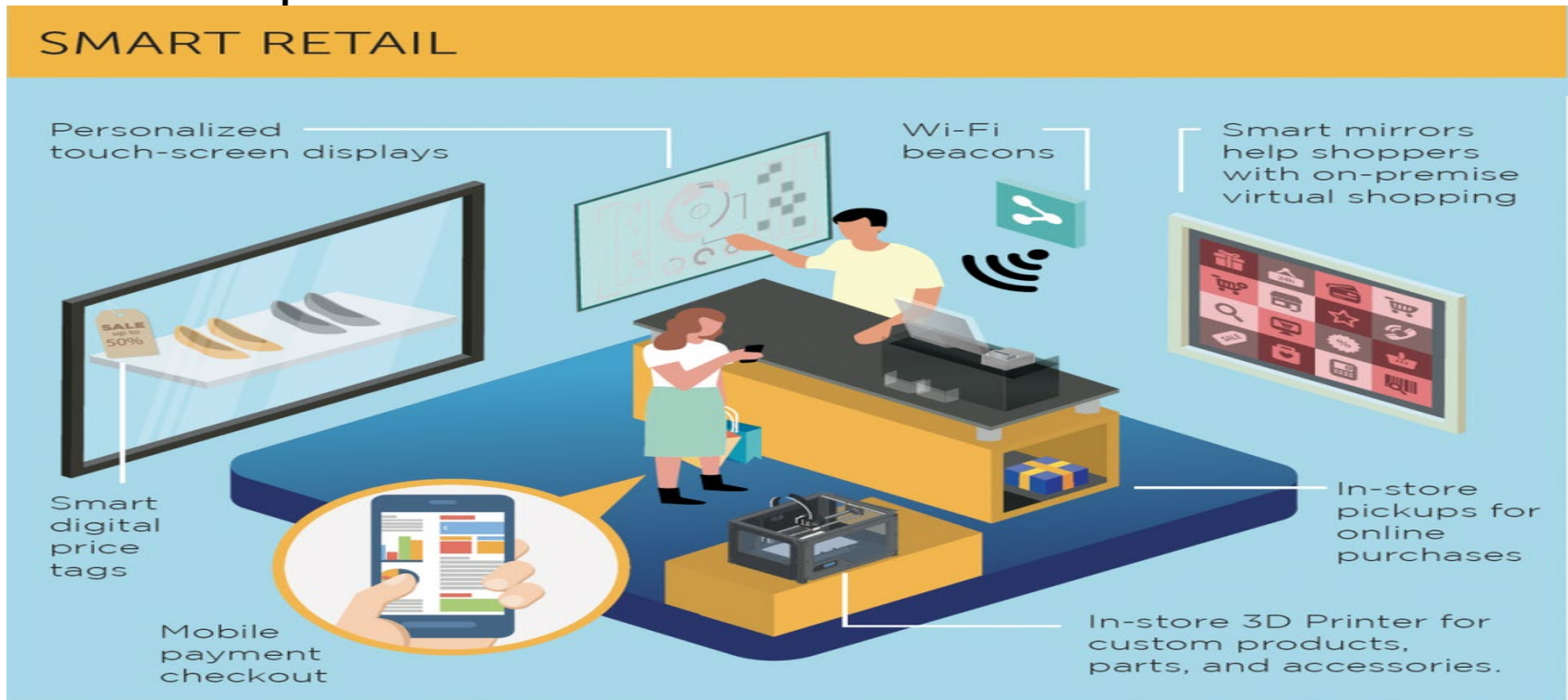
Source: <https://www.youtube.com/watch?v=oaWYxv8C84I>

Offline Retail Transformation



In-store Digitisation

- ▶ Technologies such as Wi-Fi Beacons, Interactive Displays, Smart Mirrors, etc. allow for better customer engagement and rich in-store experiences



Wi-Fi Beacons

Beacons at work while you shop

Retailers can track how customers move through the store

Product coupons

Save 25% off all Coach bags with this coupon.

Contactless payment \$100

Thanks for coming.
Rate us
★★★★★

Welcome back Mary!
Special deals on purses inside.

Stores can track how customers move through the store. Being able to track the customer's indoor location, stores can send out personalized recommendations and timely alerts on nearby deals, keeping the users engaged while in the store.

HOW BEACON TECHNOLOGY WORKS



Retailers strategically place beacons around their store.



The Beacons connect to a customer's Bluetooth-enabled smartphone app.



It sends a signal to the phone and the app is opened.



The retailer can provide the customer with a wealth of information.



Beacons



Source: <https://www.youtube.com/watch?v=ZGL0HpNm5BY>

Interactive Displays



- Intelligent signage can recognize the shopper and recommend products based on her/his interest.
- Based on shopper's interest, stores can make offers, push discount coupons, upsell or cross-sell products through the interactive kiosk/signage

Smart Mirrors

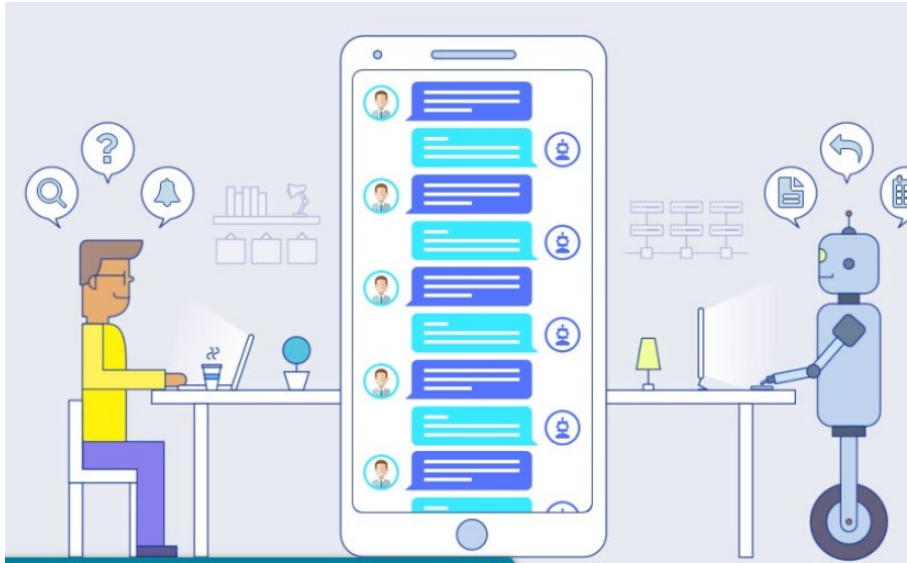


- Intelligent interactive mirrors at the store allow the shopper experience the item virtually
- Make it convenient for the customer to “try” clothes/ make-up virtually
- Stores can make offers, push discount coupons, upsell or cross-sell products through the smart mirror

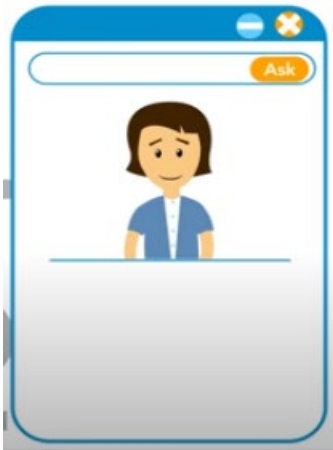
Digitised Customer Service

- ▶ **Virtual Assistants** as automated customer support through the growing **adoption of artificial intelligence and massive popularity of chat apps.**
- ▶ **Robot Assistants** can be used to handle most of the typical issues, like answering standard questions or handling returns.
- ▶ **Retail companies are able to reduce staff, while improving efficiency and customer satisfaction.**

Virtual Assistants



- Chat bots can answer customer personal questions or guide them to products they are looking for
- Virtual self service to handle customer queries 24/7
- Drive brand loyalty and boost sales and revenues
- Dedicated assistance and multiple touchpoints
- Can handle concurrent users



Robot Assistants



- Robots can answer customer questions or escort them to products they are looking for
- Based on shopper's interest, stores can make offers, push discount coupons, upsell or cross-sell products through the retail robots

Offline Retail Transformation



Product Selection/ Placement

- ▶ Retailers can use data analytics to gain insights about their customers' behaviour and preferences which may lead to better product selection (i.e. what to sell?) & placement (i.e. where to place?)
- ▶ Instead of displaying all the products, retailers can display the more popular products, thus saving store space



Inventory Management (Stock-taking)

- Shop needs to know exactly where each item is, what has been selling, what inventory needs to be refurbished and how the item has moved or misplaced.
- Shop needs to analyze trends of best selling items to make sure they are available.



Example: Automated Inventory Management for Retail



Source: <https://www.youtube.com/watch?v=4eOr0PfwFgs>

Warehouse Management

- Shop space is very limited and expensive.
- Warehouse is needed to store goods on a massive basis.
- Warehouse space is usually cheaper and bigger than shop space.
- Warehouse needs to account for its inventory : stock taking, replenishments of goods, arrival of goods and departure of goods
- Picking, packaging and delivery of goods for ecommerce is usually done at the warehouse
- It needs to analyse the movement of goods in and out of the warehouse.



Example: Warehouse Packaging



Source: <https://youtu.be/FBI4Y55V2Z4>

Delivery

- The final stage of the purchase chain in which the customer gets hold of the physical item(s) he/she has ordered
- Need to fit into the lifestyle of your target audience
- A few options are available :
 - Deliveries by riders or transporters to required destinations
 - Collection points be provided for physical collections
 - Parcel collection system provide greater convenience to consumers, who no longer need to wait for deliveries and can access the lockers at all times
 - Automated deliveries using drones, driverless machines, etc



Example : Automated Deliveries



Source: https://www.youtube.com/watch?v=dagiQW_jgtE

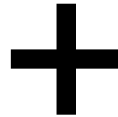
Online + Offline Retail Transformation



Optimised User Journey

Omnichannel Shopping Experience

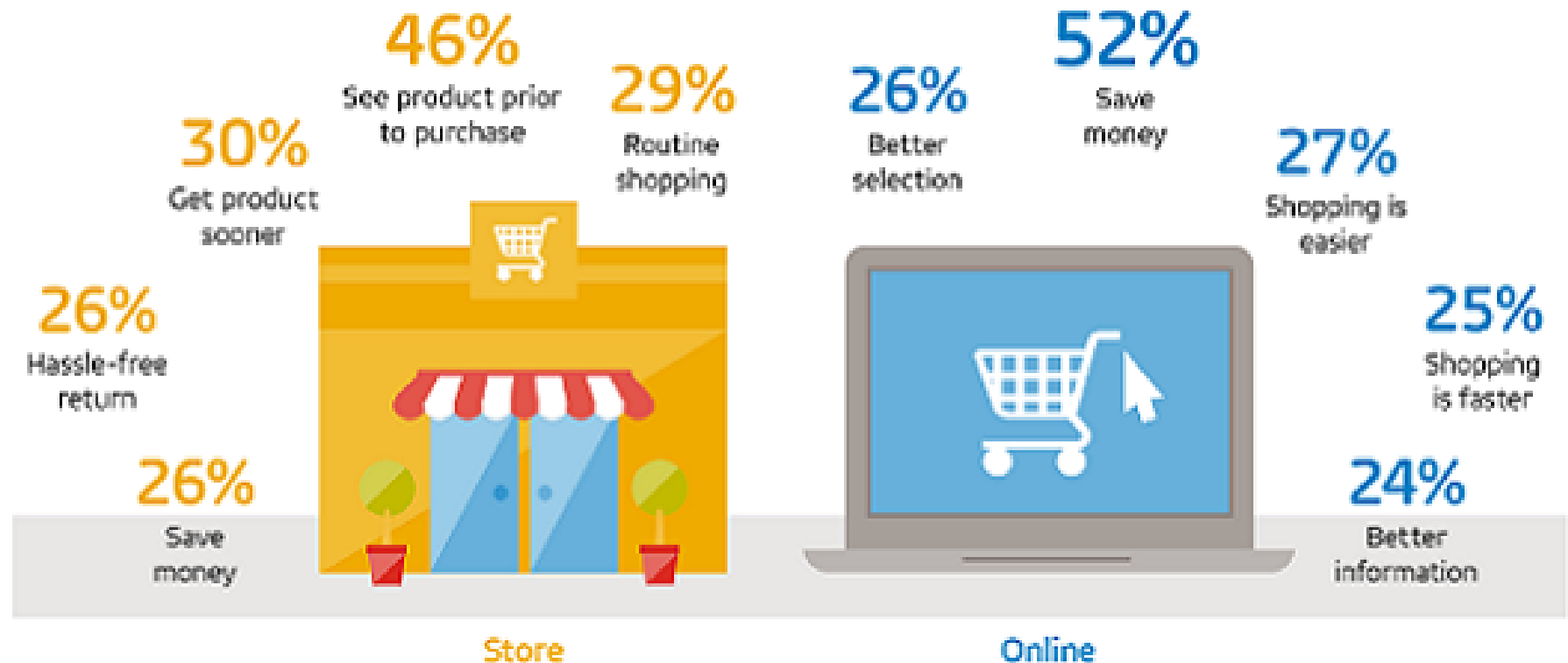
Benefits of Offline & Online



Offline	Online
Immediate gratification	Convenient & Time-Saving
On-site demonstration	Cost-effective
Real experience	Access to massive global goods
Strong sense of value	

Benefits of Offline & Online

Top five factors driving channel choice:
Online and offline complement each other



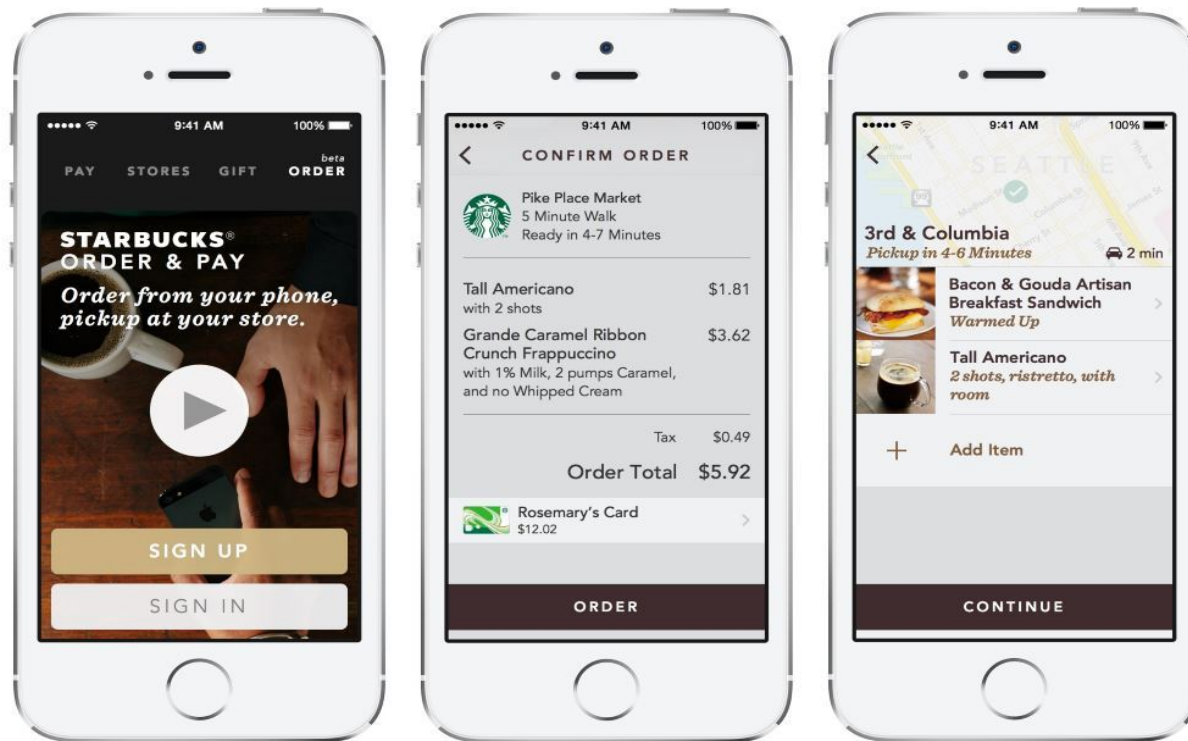
Optimised User Journey

- ▶ Using ONLINE means mobile app, social media, website, etc
- ▶ OFFLINE in getting the product on hand

*to **complement/ enhance/ optimise** the customer's **already-existing** experience/ journey*

Example: Starbuck Mobile Order & Pay

- **Customers can order their drinks in advance, pay directly within the app - ONLINE and pick up their orders at the store - OFFLINE.**
- The app also provides a convenient digital loyalty system, which allows the customers to earn and redeem their loyalty points (“Stars”) right within the app.



Omnichannel Shopping Experience

- ▶ Seamlessly **integrating all shopping channels online & offline** so that can **Order from Anywhere, Fulfill from Anywhere**

Omni-Channel Experience



Example: Omni Channel - Retail



Source: <https://www.youtube.com/watch?v=VdFx2R6diMk>

Benefits of Retail Transformation

1. Better Customer Experience Offline & Online

- ▶ Greater convenience through the use of mobile devices & e-channels. Shorter transportation/ waiting/ queuing time
- ▶ Personalised experience
- ▶ Richer in-store experience

2. Higher Conversion, Greater Efficiency & Lower Cost for Retailers

- ▶ Retailers know (i.e. have data on) who their customers are. Allows for more targeted/ personalised customer experience & higher conversion/ sales rate.
- ▶ Improve efficiency & reduce manpower required for customer service, tracking store inventory, warehouse operations, delivery, etc.

Challenges of Retail Transformation

1. **Customer Experience Design becomes Critical**

- ▶ Businesses need to focus more on Customer Experience (CX) & Digital Customer Experience (DCX) Design in order to create a seamless and enjoyable customer experience -> Know your customers (customer research)!

2. **Need for Better Data Security**

- ▶ Increased amount of personal & financial data stored in the internet
- ▶ Higher risks of cyber attacks & loss of data

Summary

▶ Retailer

- ▶ A **retailer** is a business that sells products and/or services to consumers for personal/household consumption. A **retailer** is the final business within a supply chain which links manufacturers to consumers.

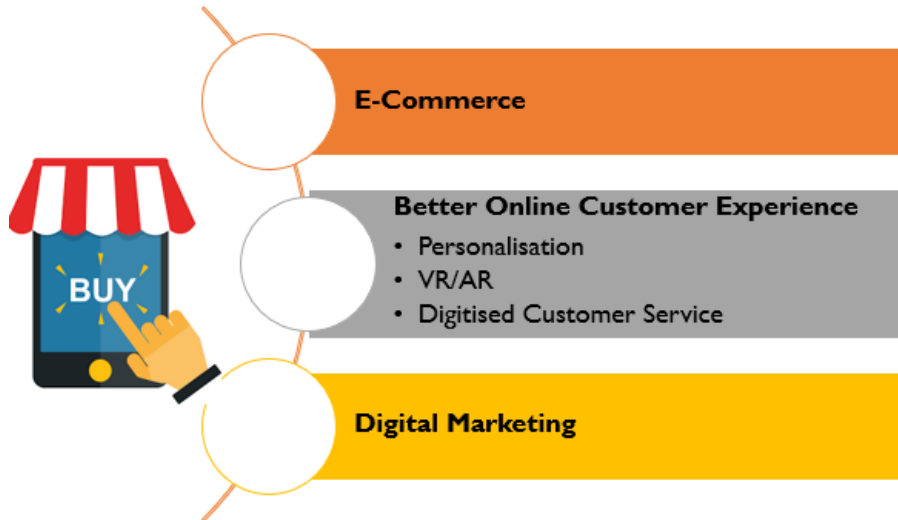
▶ Retail Transformation Focus Areas:

Retail Transformation Focus Areas



Summary

Online Retail Transformation



Offline Retail Transformation



► Online & Offline should complement each other!

Summary

▶ Benefits

1. Better Customer Experience Offline & Online
2. Higher Conversion, Greater Efficiency & Lower Cost for Retailers

▶ Challenges:

1. Customer Experience Design becomes Critical
2. Need for Better Data Security