

***SOLVE FOR X.***

***Key Distribution  
Strategies of Top  
Omni-Channel  
Companies***

Presented by:

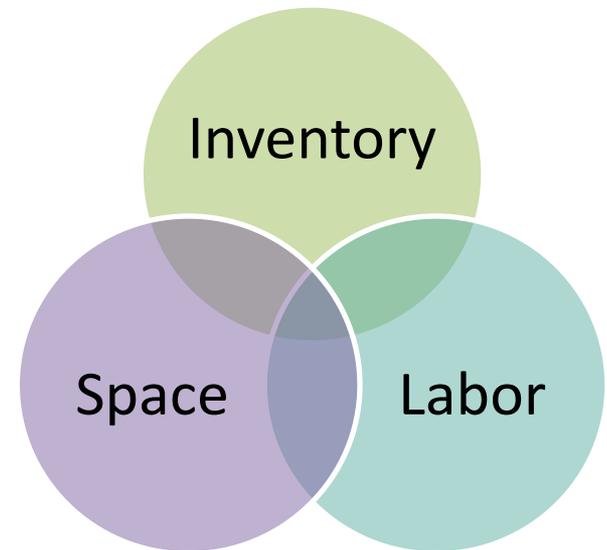
**Ian Hobkirk, President**

**Commonwealth Supply Chain Advisors**



## What does the term omni-channel distribution mean? How is it different from multi-channel?

- A company can be a “multi-channel” retailer and still operate in channel silos
- “Omni-channel” distribution refers to a distribution strategy that leverages common resources to fulfill demand across channels:
  - Inventory
  - Labor
  - Distribution facilities
- Multi-modal order management:
  - Order online, pickup in store
  - Order in store for home delivery
  - Order online, return in store



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## E-commerce is in its second decade. What factors are driving retailers to adopt omni-channel strategies all of a sudden?

Amazon has permanently changed consumer expectations

- “Free” two day shipping
- Wide selection
- Endless availability of inventory

 amazon.com  
Prime



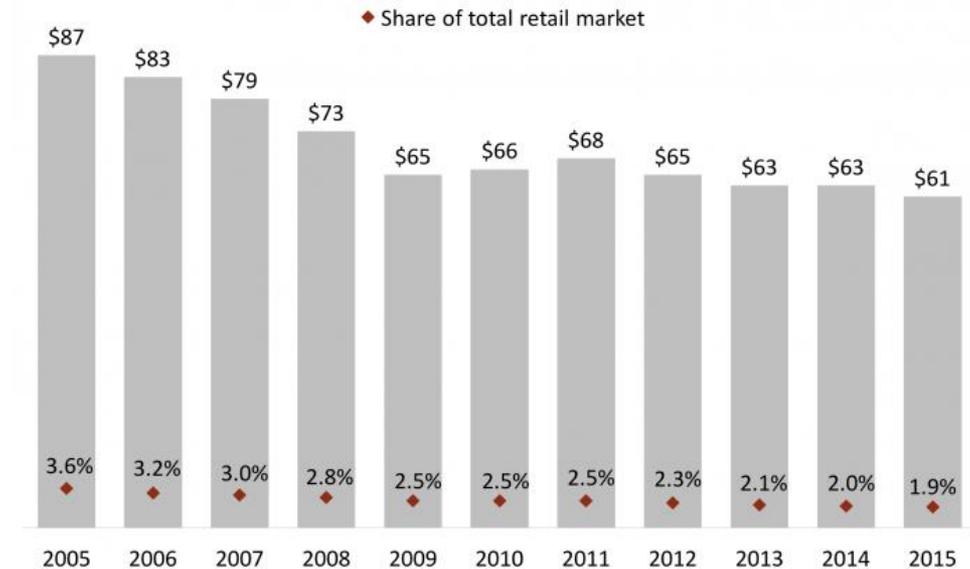


## Brick-and-Mortar Retail Sales Are Suffering

- Macys' sales during November and December of 2016 fell by 2.7%, compared with the same period in 2015
- Kohl's said that its revenue during November and December last year declined by 2.1%, compared with 2015.
- Meanwhile, online retail sales during the months of November and December 2016 totaled \$91.7 billion, up 11% from the previous year, according to data from Adobe.

### US Department Store Total Sales

Billions \$



Source: eMarketer

BI INTELLIGENCE



## How are Retailers Responding?

- Not feasible to have as much inventory in DCs as Amazon
- Don't think of it in terms of "How much inventory can I have in my DCs?" There are finite limits
- The key is to leverage inventory that already exists in other parts of the supply chain...either upstream or downstream of the DCs

Supplier DC



Retail DC



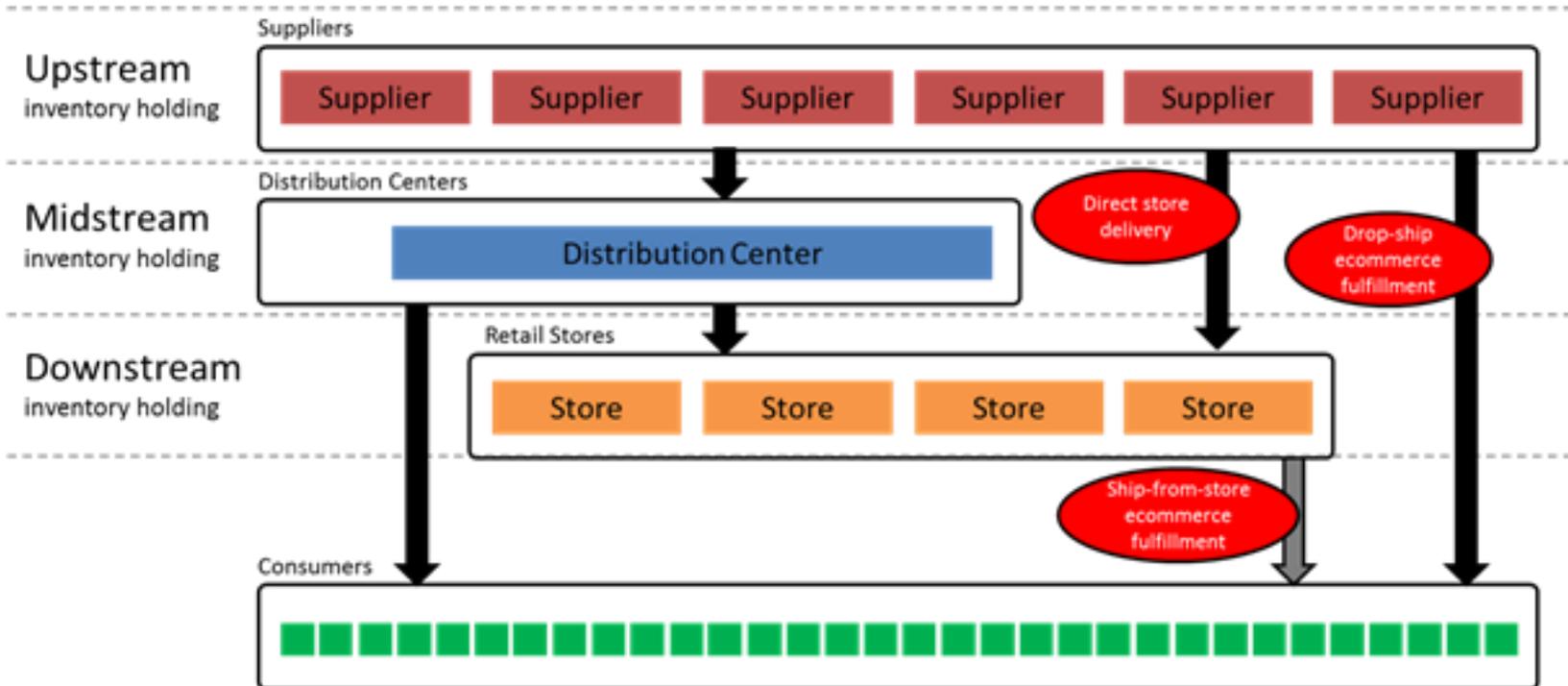
Store



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## How are Retailers Responding?

### Omni-channel distribution scenarios



## How are Retailers Responding?

Three-pronged approach to omni-channel fulfillment:

Up-Stream: Supplier Inventory - **USE it**

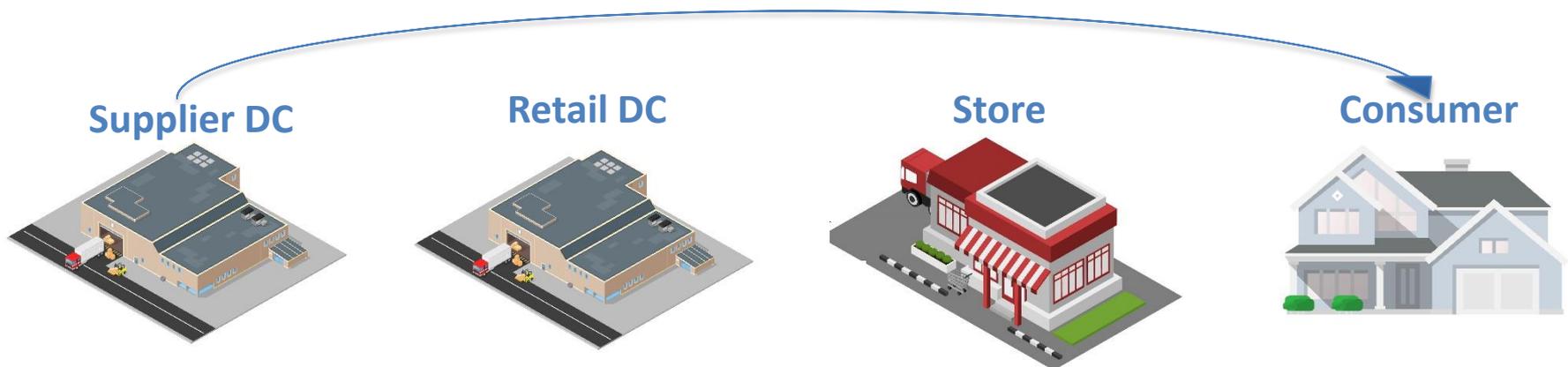
Down-Stream: Store Inventory - **USE it**

Mid-Stream: DC Inventory - **Use it BETTER**

## How are Retailers Responding?

The Concept: **Upstream:** Drop Shipping from Supplier Inventory

- Amazon already performs drop-shipping of e-commerce orders
- Suppliers often have vast amounts of inventory in stock
- The full range of SKUs can often be tapped using supplier drop shipment
- The retailer doesn't own the inventory until it is sold



## How are Retailers Responding?

The Concept: **Downstream:** Retail Store Inventory

- Many retailers may actually have even more inventory even closer to demand than Amazon if they look at it from this perspective

“We’ve spent the last 153 years building warehouses, we just called them stores.”

~ Macys’ Chief Growth Officer Pete Sachse  
Wall Street Journal interview, 2012

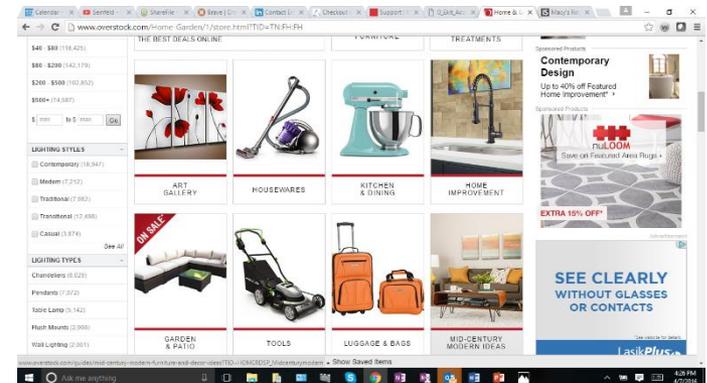
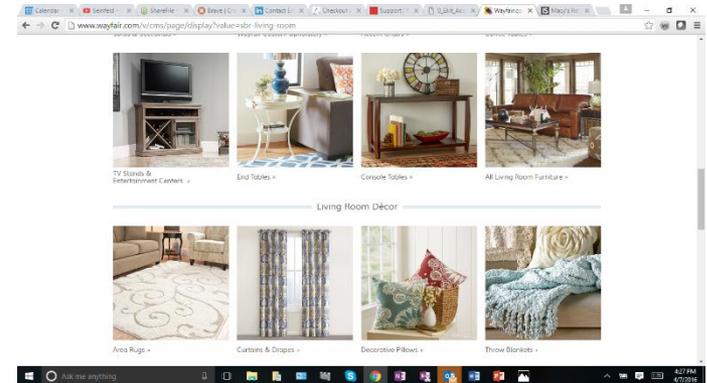


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## How are Retailers Responding?

### Spotlight: Single-channel e-commerce retailers drop shipping effectively:

- Primarily housewares and furniture products
- Millions of SKUs
- Minimal need to warehouse SKUs
- Utilize physical distribution centers, but low facility count while still competing on breadth of SKU offerings in a given category



## How are Retailers Responding?

Deep Dive: **Upstream**: Using drop shipping in intelligent ways

- Advantages:
  - Bypass the DC
  - Reduce warehousing costs
  - Reduce inventory carrying costs
- Disadvantages:
  - Some potential service level challenges
  - Visibility, integration, collaboration become very important
  - Potential for increased outbound transportation costs

## How are Retailers Responding?

Deep Dive: **Downstream**: Using store inventory to fill e-commerce orders (where it makes sense!)

- Advantages:
  - Reduce warehousing costs
  - Reduce inventory carrying costs
  - Ability to offer faster delivery times to some regions
  - Ability to ship complete more frequently
- Disadvantages:
  - Stores are not always able to easily pick, pack and ship orders
  - Often requires additional technology at store level
  - Often requires additional Order Management Technology to manage



## How are Retailers Responding?

Deep Dive: **Mid-stream:** Leveraging distribution center synergies across channels

- Sharing inventory across channels
- Using shared pool of labor across channels
- Leveraging warehouse automation in a world of vastly different order profiles



Image Source:  
Invata

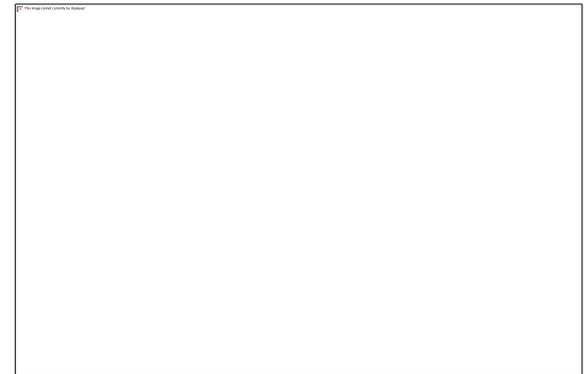
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## How are companies using store inventory to fill e-commerce orders?

- Companies fulfilling e-commerce orders from store inventory:



- Scenarios where store inventory is used for e-commerce orders:
  - The DC is out
  - The store can get it there faster
  - The store can fill the order complete
  - The store can relieve pressure on the DC



## How are companies using store inventory to fill e-commerce orders?

Not all companies use in-store fulfillment in the same way:

 Cabela's®

“Cabela's first seeks to use DC inventory, and only goes to the stores as a last resort if the DC is out of product.”

 sears

“Sears uses a more nuanced approach, and calculates the lowest-cost fulfillment path on an order-by-order basis to determine how to best source the order.”

Source: *Supply Chain Management Review: Executing the Omni Channel Vision*, September, 2014:

## How are companies using store inventory to fill e-commerce orders?

Complex criteria to consider when determining whether to fill e-commerce orders from the store or the DC:

1. Under what circumstances is store inventory allowed to be used?
2. Will it only be used if the closest DC has no inventory in stock?
3. What if there is a more distant DC that could fill the order...does it make sense to fill from the DC or from a closer store?
4. If there are multiple stores in the area which could be used to fill the order, which one makes the most sense?
5. What stores have already been given a lot of e-commerce orders today?
6. How much labor capacity exists at each store to fill the order?
7. Which ones might have extra capacity?
8. If the closest store only has one of the items left in stock, does it make sense to use it to fill the order, or should the next closest store be considered?

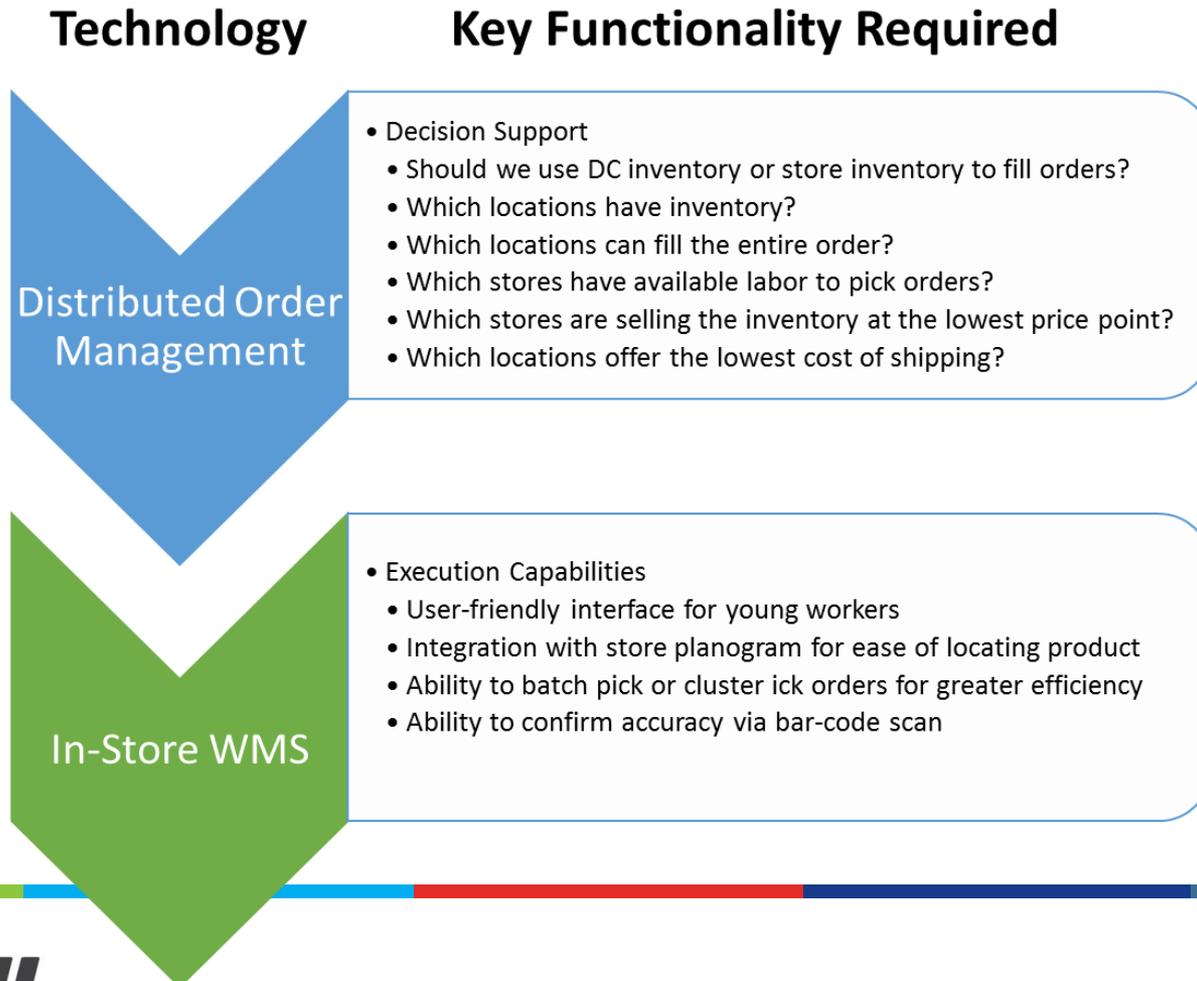
## How are companies using store inventory to fill e-commerce orders?

(Continued) Complex criteria to consider when determining whether to fill e-commerce orders from the store or the DC:

9. Which stores are selling this item at the lowest price point, so that the impact of losing the inventory on the shelf will be less painful?
10. What if the closest store has the highest retail price-point?
11. What if the item exists in the DC, but the customer requests expedited service?
12. What should be done if the item can be delivered next day via ground service if filled from the store, vs. more costly air-service from the DC?
13. What if there is a chance to ship the item ground from the store, but it means shipping the last unit that the store has in stock?

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## What kind of technology is being used to help execute on these strategies?



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What kinds of companies have adopted DOM?





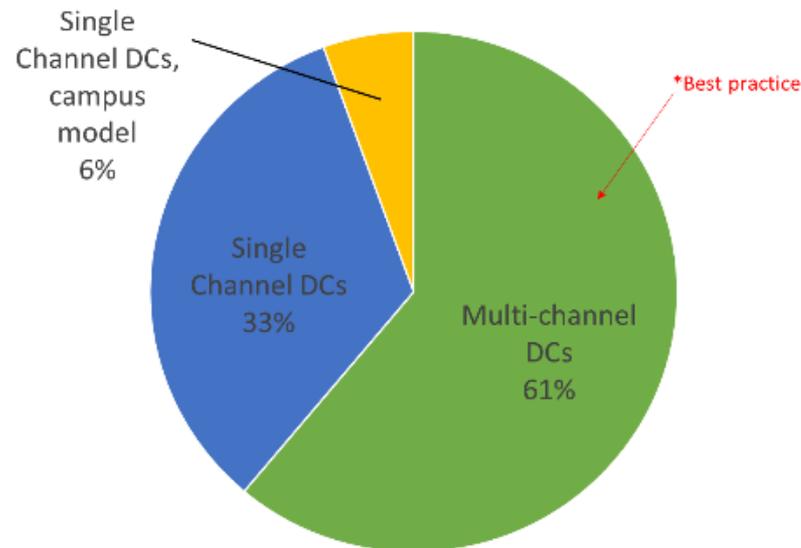


And...many others that will not go on the record!

## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

1. Keep all channels under one roof

### Facility Strategy for Omni-Channel Distribution

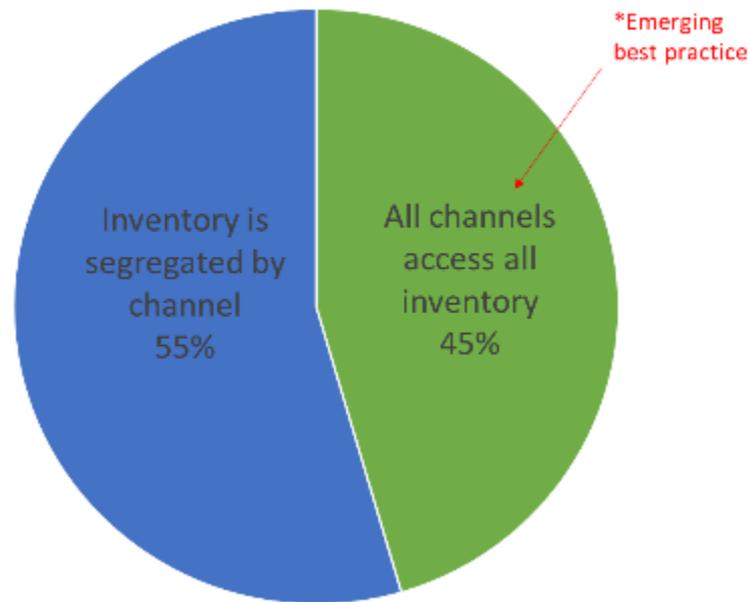


Source: Commonwealth Supply Chain Advisors, 2015

## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

2. Allow all channels to draw from a common pool of inventory

### Inventory Strategy for Omni-Channel Distribution



Source: Commonwealth Supply Chain Advisors, 2015

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## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

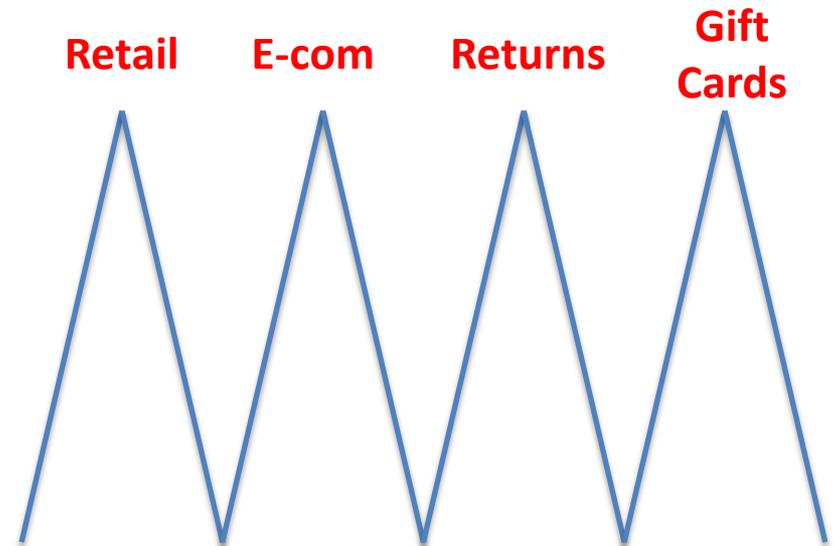
3. Use a shared pool of labor (better to handle the “quadruple peak” holiday period):

Ship store orders: Oct - Nov

Ship e-commerce orders: Late Nov - Dec

Returns processing: January

Gift card purchases for retail and e-commerce: January

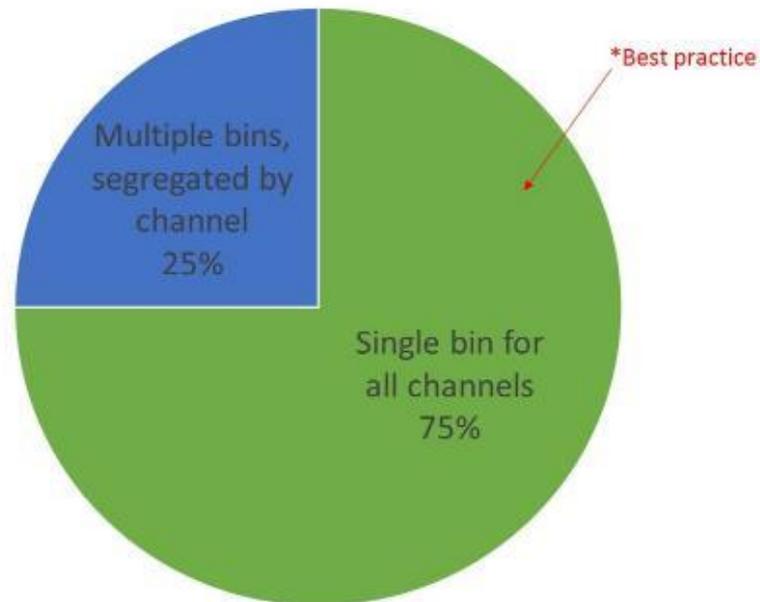


\* Trained workers can shift from one kind of work to another fairly rapidly when everything is under one roof

## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

### 4. Use common bins for inventory

#### Bin Strategy for Omni-Channel Distribution

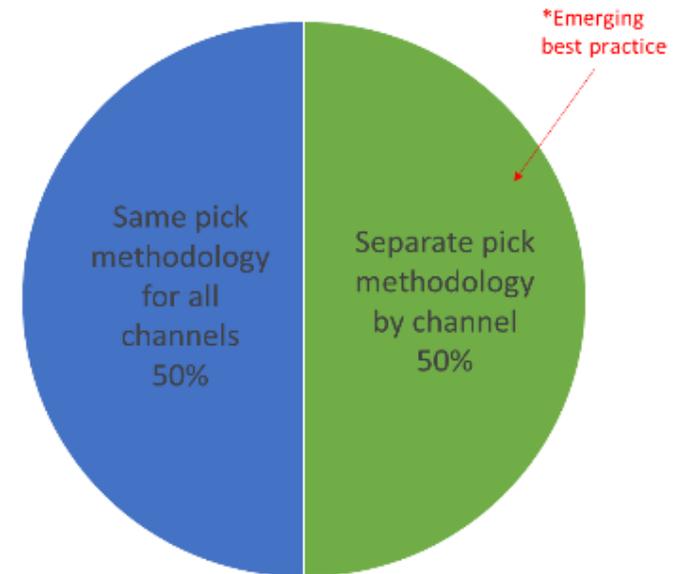


Source: Commonwealth Supply Chain Advisors, 2015

## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

5. Use pick methodology and supporting warehouse automation intelligently
  - Different order profiles create order fulfillment challenges
  - Retail: High line count, high commonality of SKUs, longer and more consistent planning window
  - Direct to consumer: low line count, low commonality of SKUs (sometimes), shorter and less consistent planning window

### Pick Methodologies of Omni-Channel Companies



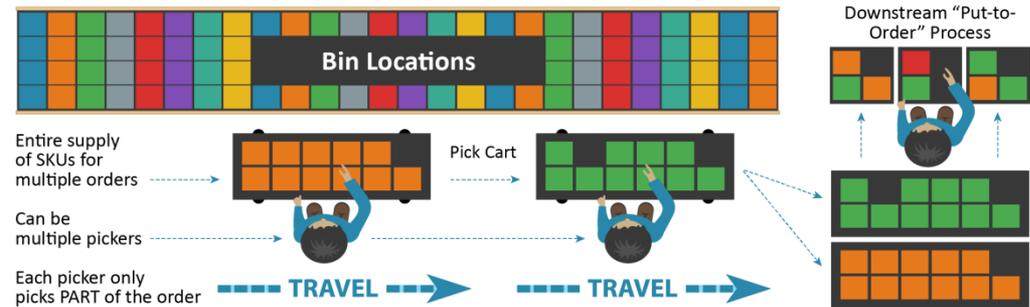
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## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

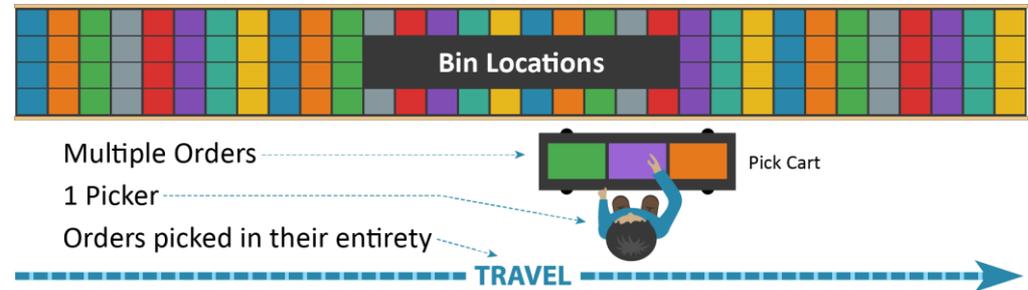
Key processes required:

- Batch picking
- Cluster picking
- Unit sortation
- Put processes
- Value added services

### Batch Picking



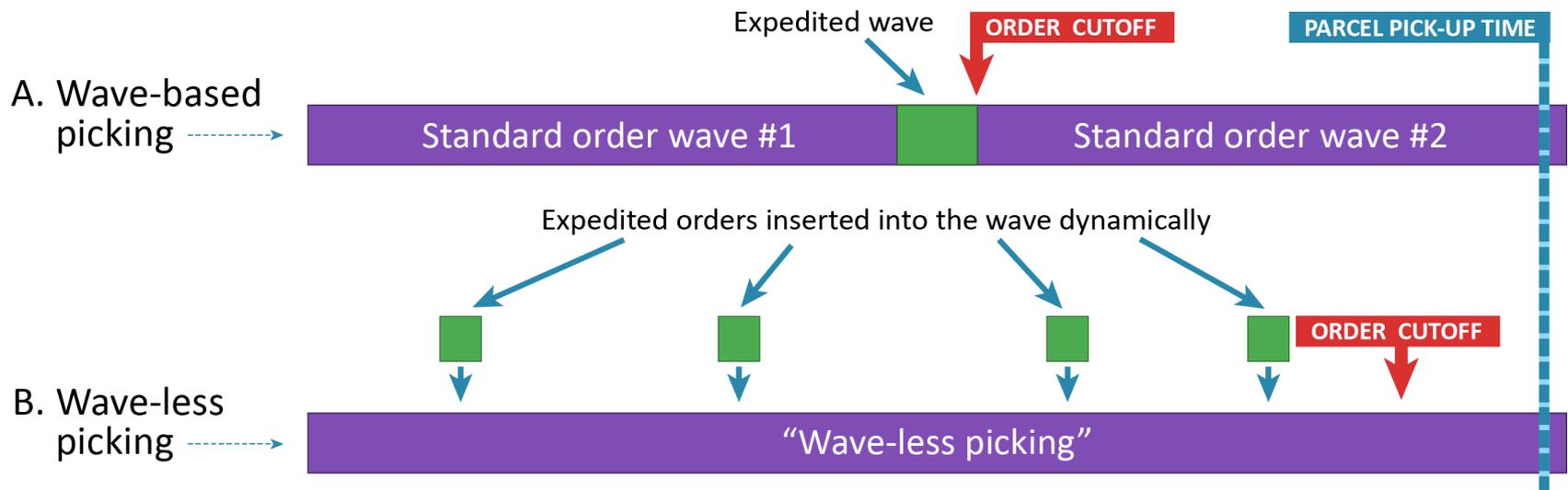
### Cluster Picking



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## What are companies doing at the facility-level to better leverage their assets to fill orders across multiple channels?

6. Remain flexible: Dynamically insert high priority orders into a large batch of work (“waveless” or continuous wave picking)



Source: Commonwealth Supply Chain Advisors

## Resources/References

- Locations of Amazon DCs shown:
  - [https://en.wikipedia.org/wiki/Amazon.com#Fulfillment\\_and\\_warehousing](https://en.wikipedia.org/wiki/Amazon.com#Fulfillment_and_warehousing)
- Market capitalization source: [http://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html?\\_r=0](http://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html?_r=0)
- SKUs source: <https://export-x.com/2013/12/15/many-products-amazon-sell/>
- Inventory source: <https://finance.yahoo.com/q/bs?s=AMZN+Balance+Sheet&annual>
- Retailer list source:  
<http://www.wsj.com/articles/SB10001424052702303505504577404123150295102>

## Additional Resources

Commonwealth's Resource Library is full of resources on supply chain strategy and warehouse design/optimization:

- *The Picking Playbook*
- *The Packing Playbook*
- *E-Commerce in the Distribution Center, Making a Graceful Transition*
- *An Objective Guide to WMS Selection*
- *The Ultimate WMS Project Preparation Guide*
- *And more!*

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