Key Distribution Strategies of Top Omni-Channel Companies

Presented by:

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

- Facilities in over 76 cities
- Over 200 million SKUs
- $10.2 billion in inventory
- 21 years of heavy investment, often with minimal profits

Locations of Amazon distribution centers retrieved from:
Wikipedia.com 1/20/2017
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.
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
How are Retailers Responding?
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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
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
How are companies using store inventory to fill e-commerce orders?

• Companies fulfilling e-commerce orders from store inventory:

  - Cabela's
  - Sears

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

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

**Technology**

- Distributed Order Management

**Key Functionality Required**

- Decision Support
  - Should we use DC inventory or store inventory to fill orders?
  - Which locations have inventory?
  - Which locations can fill the entire order?
  - Which stores have available labor to pick orders?
  - Which stores are selling the inventory at the lowest price point?
  - Which locations offer the lowest cost of shipping?

- In-Store WMS

  - Execution Capabilities
    - User-friendly interface for young workers
    - Integration with store planogram for ease of locating product
    - Ability to batch pick or cluster pick orders for greater efficiency
    - Ability to confirm accuracy via bar-code scan
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

- Multi-channel DCs 61%
- Single Channel DCs 33%
- Single Channel DCs, campus model 6%

*Best practice

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

- Inventory is segregated by channel (55%)
- All channels access all inventory (45%)

*Emerging best practice

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?

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

- Single bin for all channels: 75%
- Multiple bins, segregated by channel: 25%

*Best practice

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
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
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)

A. Wave-based picking

B. Wave-less picking

Source: Commonwealth Supply Chain Advisors
Resources/References

• Locations of Amazon DCs shown:
  — https://en.wikipedia.org/wiki/Amazon.com#Fulfillment_and_warehousing


• 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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