Retail Success in the Age of Amazon: Leveraging People, Processes, and Technology to Thrive

Presented by:
Jim Barnes
Setting the Context
Today’s Agenda

1. Digital Transformation

2. Omni-Channel Enablement

3. Roles of Supply Chain Leaders

4. Impact of Big Data and Business Intelligence

5. The Future “Unified Commerce” Platform
Digital Transformation Requires:

- Engaging with your Customers: By Creating Unique Experiences
- Empowering your Employees: To Take Care of Your Customer
- Optimizing your Operations: By Leveraging LEAN Process Design & Business Intelligence
- Transforming your Products: By Creating Differentiation
CAVE PAINTING

SNAPCHAT

Sup?
• Are you thriving or surviving in this digital age?
• Why are so many organizations struggling?
• As a Retail leader how are you impacting the EXPERIENCE of your customer?

IS THE WIND AT YOUR BACK OR IN YOUR FACE?
1. Digital is Everything
But not everything is digital
The Age of Digital Transformation

Your customers are empowered more than ever:

- Organizations used to own the experience
- Technology in customers' hands has given them more choice and control
- Your customer now demands experiences along with their buying journey
Amazon creates a new channel…

Amazon Echo
The Age of Digital Transformation

- The physical store is rising in importance because of digital. The ability to buy online and pick up in the store has retailers using the stores as fulfillment centers.
- After all, 94% of total retail sales are still generated at brick and mortar stores, according to data from market research firm eMarketer.
- In the end, online shopping fosters a purchaser’s purchasing habits while brick and mortar supports a purchaser’s purchasing decision.
- 79.7% of all US shoppers prefer going to a store “because I can touch and feel the product”
- 73.5% prefer to shop at a store rather than online because “I am more confident that I am buying the right thing”
- Only 10-15% of U.S. adults make online purchases at least once a week, according to the Pew Research Center.
The Impact of Digital for Retailers

US retail sales ($ billions)

- Offline sales (total retail minus online sales and web-influenced online sales)
- Web-influenced offline sales
- Online sales

2014: $1,707
2015(F): $1,702
2016(F): $1,706
2017(F): $3,491
2018(F): $1,710
2019(F): $1,715
2020(F): $1,721
2021(F): $1,728

- 39% will be pure web-influenced
- 12% will be pure online sales

Web-impacted share of total retail sales:
- 2014: 46%
- 2015(F): 48%
- 2016(F): 49%
- 2017(F): 51%
- 2018(F): 53%
- 2019(F): 54%
- 2020(F): 55%

$252B growth
$108B growth

Source: Forrester Advisory Deck
2. Omni-Channel Enablement

Source: Forrester Research
When & What Omni-Channel Capabilities?

Forrester’s Global eBusiness and Channel Strategy Professional Online Survey, Q4 2016
# Offered Fulfillment Strategies

<table>
<thead>
<tr>
<th>Fulfillment Strategy</th>
<th>Implemented in 2015 or earlier</th>
<th>Implemented/Implementing this year (2016)</th>
<th>Implementing in 2017 or later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy online, pick up in store (e.g. use existing store stock)</td>
<td>61%</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Online visibility to in-store inventory</td>
<td>53%</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>Ship from store (i.e. directly from a store to the customer)</td>
<td>52%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>Ship to store (e.g. ship stock from warehouse for pickup in the store)</td>
<td>44%</td>
<td>22%</td>
<td>6%</td>
</tr>
<tr>
<td>Reserve online, pick up in store (e.g. payment transacted through store POS)</td>
<td>41%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>Endless aisle</td>
<td>38%</td>
<td>21%</td>
<td>21%</td>
</tr>
</tbody>
</table>

*Forrester’s Global eBusiness and Channel Strategy Professional Online Survey, Q4 2016*
## Best Practices to Convert Digital to Physical

<table>
<thead>
<tr>
<th>Omni-Channel Enablement</th>
<th>Best Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Inventory Visibility</td>
<td>• Real-Time Visibility to all Inventory&lt;br&gt;• Order/Reserve online Capabilities</td>
</tr>
<tr>
<td>Buy Online/Pick-Up In Store</td>
<td>• Accurate in-store inventory visibility (&gt;98%)&lt;br&gt;• Short fulfillment times (&lt; 30 Minutes)&lt;br&gt;• Customer Notification (&lt;2 Hours)</td>
</tr>
<tr>
<td>Ship-From-Store</td>
<td>• Same Day Pick and Pack (capacity analysis)&lt;br&gt;• Efficient Algorithms to Manage Fulfillment</td>
</tr>
<tr>
<td>Ship-To-Store</td>
<td>• Easy process for store Receiving&lt;br&gt;• 3-Day SLA for ship-to-store orders</td>
</tr>
<tr>
<td>Endless Aisle</td>
<td>• Structure staff training/testing on Tools&lt;br&gt;• Ease of Use (Same POS Interface)</td>
</tr>
</tbody>
</table>
Omni-Channel Investments

- Many companies still need to invest a robust OMS to optimize omnichannel.
- Additional investments are needed to optimize stores:
  - Better tools for pick and pack.
  - Better tools for ship-from-store operations.
- Many companies still need to invest in a TMS to manage inbound transportation and the life cycle of a Purchase Order.

In order to manage outbound flow, retailers and distributors must manage inbound flow.
It’s All About: Algorithms & Dynamic Attributes

**Algorithms**

Warehouse Location  In modeling distribution systems, decisions must be made about tradeoffs between transportation costs and costs for operating distribution centers. As an example, suppose that a manager must decide which of \( n \) warehouses to use for meeting the demands of \( m \) customers for a good. The decisions to be made are which warehouses to operate and how much to ship from any warehouse to any customer. Let

\[
y_i = \begin{cases} 1 & \text{if warehouse } i \text{ is opened,} \\ 0 & \text{if warehouse } i \text{ is not opened;} \\ x_{ij} & \text{Amount to be sent from warehouse } i \text{ to customer } j. 
\end{cases}
\]

The relevant costs are:

\[
f_i = \text{Fixed operating cost for warehouse } i, \text{ if opened (for example, a cost to lease the warehouse),}
\]

\[
c_{ij} = \text{Per-unit operating cost at warehouse } i \text{ plus the transportation cost for shipping from warehouse } i \text{ to customer } j.
\]

There are two types of constraints for the model:

i) The demand \( d_j \) of each customer must be filled from the warehouses; and

ii) goods can be shipped from a warehouse only if it is opened.

The model is:

Minimize \[
\sum_{i=1}^{n} \sum_{j=1}^{m} c_{ij} x_{ij} + \sum_{i=1}^{n} f_i y_i,
\]

subject to:

\[
\sum_{j=1}^{m} x_{ij} = d_j \quad (j = 1, 2, \ldots, m),
\]

\[
\sum_{j=1}^{m} x_{ij} - y_i \left( \sum_{j=1}^{m} d_j \right) \leq 0 \quad (i = 1, 2, \ldots, m),
\]

\[
x_{ij} \geq 0 \quad (i = 1, 2, \ldots, m; j = 1, 2, \ldots, n),
\]

\[
y_i = 0 \text{ or } 1 \quad (i = 1, 2, \ldots, m).
\]

**Attributes**

[Diagram showing attribute management and set management with attribute sets and Canadian sales tax attributes.]
3. What is Your Role?

The Goal

Seamless & Consistent Customer Experience Across the Shopping Experience
Organizational Accountability Impact

- Entitlement
- Individual
- Work Unit
- Cross-Functional
- Organizational
Is This Really What You Are Focused On?
Creating Personalization

Your Shoe Co.

PACKING SLIP

SHIPPED BY
Your Shoe Co.
1231 Washington St.
Chicago, IL 60607

ORDER CONTACT
Your Company
(555) 505-5055
133 SECOND STREET
YOUR TOWN, USA 12345

ITEM       QTY      PRICE
41E-363-388  1       $300.95
Leather Fashion Boots Sz 5
41E-278-198  1       $74.95
Lightweight Running Sz 5

[US Dollars] TOTAL: $375.94

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123 FIRST STREET
CHICAGO, IL 60601

ORDER CONTACT
Your Company
(555) 555-5555
133 SECOND STREET
YOUR TOWN, USA 12345

ITEM       QTY      PRICE
#0-393-388  1       $29.99
Phone Book
#0-278-198  1       $74.95
Charging Station

[US Dollars] TOTAL: $104.94

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4. The Impact of Big Data & Business Intelligence

OBJECTIVE INSIGHTS ON HUMAN BEHAVIOR NEVER BEFORE AVAILABLE
...WRONGLY CALLED BIG DATA
Big Data... The Reality

Prescriptive – Here is what you should do
Predictive – Here is what you could do
Insights – Here is what it means
Data – Here is what happened

Only 12% of Enterprise Data is used for Analytics.
5. The Future “Unified Commerce” Platform
Would you pay $100 for Amazon Prime if Amazon did not keep their 2 day delivery promise? Amazon prime is estimated as a $5 Billion Service. How many $5 Billion services or even retailers do you know? The fact is this service just by itself without selling or delivering one package to your home would rank Amazon as the 183 largest retailer Globally. You only pay for PRIME because Amazon delivers on their PROMISE. Amazon competes on time and they do it with a Order Management System (Home Grown) that allows them to take your order and source the inventory across as vast network of sellers and inventory (owned and not owned). So if you want to keep up (good luck) the unlock is enabling technology (OMS) that allows any distributor or retailer to optimize service level vs cost (trade offs) and manage the life cycle of the order so expectations are met.
What is Unified Commerce?
Foundational Principles to Unified Commerce

- Enterprise Wide Inventory Visibility
- Order Orchestration
- Omni-Channel Enablement
- Customer Experience
Unified Commerce

- Enterprise Inventory Visibility
- Omni-Channel Fulfillment
- Point of Engagement
- Product, Price, & Promotion

360 View of Customer
The Power of an “Integration First” Approach for Business Systems Intelligence
Order Life Cycle Management
You need to Solve for Order and Data Orchestration

<table>
<thead>
<tr>
<th>Enspire Commerce (eCommerce)</th>
<th>Order Management</th>
<th>Point of Sale (Store)</th>
<th>Vendor Drop Ship</th>
<th>Warehouse Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place Order Online</td>
<td>Sales Order Captured</td>
<td>Inventory Allocation Decision</td>
<td>Inventory Log</td>
<td>Send EDI 846</td>
</tr>
<tr>
<td>Customer orders 3 different SKUs</td>
<td></td>
<td>Order Routed</td>
<td>SKU 1</td>
<td>SKU 2</td>
</tr>
<tr>
<td>Hollistic inventory snapshot through integration points with key systems</td>
<td></td>
<td></td>
<td>SKU 2</td>
<td>SKU 3</td>
</tr>
<tr>
<td>Shipment Update</td>
<td>Inventory Log</td>
<td>SKU 1</td>
<td>SKU 1</td>
<td>SKU 3</td>
</tr>
<tr>
<td>Enspire Commerce Integration Framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Protocols</td>
<td>File Formats</td>
<td></td>
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<tr>
<td>API</td>
<td>XML</td>
<td></td>
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<tr>
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<td>SFTP</td>
<td>CSV</td>
<td>EDI</td>
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<td></td>
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</table>

- **Communication Protocols**: API, AS2, SFTP
- **File Formats**: XML, CSV, EDI

**MHI.**

*THE INDUSTRY THAT MAKES SUPPLY CHAINS WORK®*
It’s All About: Algorithms & Dynamic Attributes

Algorithms

Warehouse Location: In modeling distribution systems, decisions must be made about trade-offs between transportation costs and costs for operating distribution centers. As an example, suppose that a manager must decide which of $n$ warehouses to use for meeting the demands of $m$ customers for a good. The decisions to be made are which warehouses to operate and how much to ship from any warehouse to any customer. Let

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i) the demand $d_j$ of each customer must be filled from the warehouses; and

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The model is:

Minimize $\sum_{i=1}^{n} \sum_{j=1}^{m} c_{ij} x_{ij} + \sum_{i=1}^{n} f_i y_i$, \hspace{1cm} (1)

subject to:

$$\sum_{i=1}^{n} x_{ij} = d_j \hspace{1cm} (j = 1, 2, \ldots, m), \hspace{1cm} (2)$$

$$\sum_{j=1}^{m} x_{ij} - y_i \left( \sum_{j=1}^{m} d_j \right) \leq 0 \hspace{1cm} (i = 1, 2, \ldots, n), \hspace{1cm} (3)$$

$$x_{ij} \geq 0 \hspace{1cm} (i = 1, 2, \ldots, n; j = 1, 2, \ldots, m),$$

$$y_i = 0 \text{ or } 1 \hspace{1cm} (i = 1, 2, \ldots, n).$$

Attributes

[Image of a software interface for attribute management]
Success =

Speed of Customer +

Speed of Business +

Speed of Operations

BOTTOM LINE:
BUILD EXPERIENCES FOR LIFE, NOT FOR MACHINES
• DIGITAL IS EVERYTHING, BUT NOT EVERYTHING IS DIGITAL

• COMMERCE IS ABOUT EXPERIENCE, NOT BRAND ACCESS. RETAIL IS THRIVING FOR THOSE THAT EMBRACE DIGITAL

• OMS AND TMS ARE THE CORNERSTONE APPLICATIONS TO THRIVE IN THIS GLOBAL ECONOMY

• OBJECTIVE INSIGHTS OVER BIG DATA

• UNIFY COMMERCE PLATFORMS ARE THE CORNERSTONE TO THRIVE IN THIS GLOBAL ECONOMY & NOT POINT APPLICATION SOLUTIONS

IF YOU REMEMBER NOTHING ELSE...
Questions?
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